

UNITED STATES INTERNATIONAL TRADE COMMISSION

In the Matter of:) Investigation No.:
CRYSTALLINE SILICON PHOTOVOLTAIC CELLS) TA-201-75
(WHETHER OR NOT PARTIALLY OR FULLY)
ASSEMBLED INTO OTHER PRODUCTS)

REVISED & CORRECTED

Pages: 1 - 422
Place: Washington, D.C.
Date: Tuesday, August 15, 2017



Ace-Federal Reporters, Inc.
Stenotype Reporters
1625 I Street, NW
Suite 790
Washington, D.C. 20006
202-347-3700
Nationwide Coverage
www.acefederal.com

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

UNITED STATES OF AMERICA
BEFORE THE
INTERNATIONAL TRADE COMMISSION

IN THE MATTER OF:) Investigation No.:
CRYSTALLINE SILICON PHOTOVOLTAIC) TA-201-75
CELLS (WHETHER OR NOT PARTIALLY OR)
FULLY ASSEMBLED INTO OTHER PRODUCTS)

Main Hearing Room (Room 101)
U.S. International Trade
Commission
500 E Street, SW
Washington, DC
Tuesday, August 15, 2017

The meeting commenced pursuant to notice at 9:30
a.m., before the Commissioners of the United States
International Trade Commission, the Honorable Rhonda K.
Schmidtlein, Chairman, presiding.

1 APPEARANCES:

2 On behalf of the International Trade Commission:

3 Commissioners:

4 Chairman Rhonda K. Schmidtlein (presiding)

5 Vice Chairman David S. Johanson

6 Commissioner Irving A. Williamson

7 Commissioner Meredith M. Broadbent

8

9

10

11 Staff:

12 William Bishop, Supervisory Hearings and Information

13 Officer

14 Sharon Bellamy, Records Management Specialist

15 Yasmyne Hilliard, Student Intern

16

17 Mary Messer, Investigator

18 Andrew David, International Trade Analyst

19 Aimee Larsen, International Economist

20 David Boyland, Accountant/Auditor

21 Mary Jane Alves, Attorney/Advisor

22 William Gearhart, Attorney/Advisor

23 Michael Anderson, Director, Office of Investigations

24

25

1 State Government Witnesses:

2 The Honorable Paul Gazelka, State Senator, Minnesota State
3 Senate

4 The Honorable David Tomassoni, State Senator, Minnesota
5 State Senate

6 The Honorable Jason Saine, State Representative, North
7 Carolina House of Representatives

8 The Honorable Bucky Johnson, Mayor of the City of Norcross,
9 Georgia

10 The Honorable Lauren McDonald, Commissioner, Georgia Public
11 Service Commission

12 Luke Clippinger, Delegate, Maryland House of Delegates

13 Al Christopher, Director, Division of Energy, Virginia
14 Department of Mines, Minerals and Energy

15

16

17

18

19

20

21

22

23

24

25

1 Embassy Witnesses:

2 Embassy of the Republic of Korea

3 Washington, DC

4 The Honorable Chang K. Kim, Minister Counsellor for
5 Trade, Industry & Energy

6

7 Embassy of the Republic of Indonesia

8 Washington, DC

9 Reza Pahlevi Chairul, Commercial Attache

10

11 Delegation of the European Union to the United States of
12 America

13 Washington, DC

14 Sibylle Zitko, Senior Legal Advisor

15

16 Embassy of Brazil

17 Washington, DC

18 Reynaldo Linhares Colares, Second Secretary

19

20 Embassy of Mexico

21 Washington, DC

22 Aristeo Lopez, Legal Adviser in the Commercial and
23 NAFTA Office of the Secretariat of Economy

24

25

1 Embassy of Canada

2 Washington, DC

3 Carrie Goodge O'Brien, Counsellor (Trade Policy)

4

5 Taipei Economic and Cultural Representative Office

6 Washington, DC

7 Chien Chi Chao, Economic Officer

8

9 Opening Remarks:

10 Petitioner (Matthew J. McConkey, Mayer Brown LLP)

11 Respondents (Matthew R. Nicely, Hughes Hubbard)

12

13 In Support of the Petition:

14 Mayer Brown LLP

15 Washington, DC

16 on behalf of

17 Suniva Inc.

18 Matt Card, Executive Vice President of Commercial

19 Operations, Suniva Inc.

20 Dave McCarty, Chief Operating Officer, Itek Energy

21 Steve Shea, Consultant, Formerly Vice President at

22 Beamreach Solar

23 Warren Payne, Sr., International Trade Advisor, Mayer

24 Brown LLP

25 Andrew Szamosszegi, Principal, Capital Trade Inc.

1 Seth Kaplan, President, International Economic Research
2 LLC

3 Matthew J. McConkey and Margaret Sales - Of Counsel

4

5 Wiley Rein LLP

6 Washington, DC

7 on behalf of

8 SolarWorld Americas, Inc. ("SolarWorld")

9 Juergen Stein, Chief Executive Officer, SolarWorld

10 Shane Messer, Vice President of Sales and Marketing,

11 SolarWorld

12 Edward Harner, Chief Operating Officer, Green Solar

13 Technologies

14 Timothy C. Brightbill, Laura El-Sabaawi, Usha

15 Neelakantan and Tessa V. Capeloto - Of Counsel

16

17 Non-Parties in Support of the Petition:

18 FisherBroyles, LLP

19 Washington, DC

20 on behalf of

21 SKC, Inc.

22 Emmarine Byerson, Senior Accounting & Risk Manager

23 Aiden Oh, Business Manager

24 Philip Gallas - Of Counsel

25

1 Stion Corporation

2 Hattiesburg, MD

3 Frank Yang, Vice President of Business Development &
4 Marketing

5

6 In Opposition to the Petition:

7 Hughes Hubbard & Reed LLP

8 Washington, DC

9 on behalf of

10 The Solar Energy Industries Association ("SEIA") and its
11 member company SunPower Corporation

12 Tom Werner, President and CEO, SunPower Corp.

13 Ed Fenster, Co-Founder and Executive Chairman, Sunrun
14 Inc.

15 Dan Shugar, Founder and CEO, NEXTracker

16 Craig Cornelius, Senior Vice President, Renewables, NRG
17 Energy Inc.

18 Bastel Wardak, President, California Solar Systems,
19 Inc.

20 Thomas J. Prusa, Professor and Chair, Department of
21 Economics, Rutgers University

22 Amy Grace, Head of North America Research, Bloomberg
23 New Energy Finance

24 James P. Dougan, Vice President, Economic Consulting
25 Services, LLC

1 Jennifer Lutz, Senior Economist, Economic Consulting
2 Services, LLC

3 Emma K. Peterson, Economist, Economic Consulting
4 Services, LLC

5 Matthew R. Nicely and Julia K. Eppard - Of Counsel

6

7 Baker & McKenzie LLP

8 Washington, DC

9 on behalf of

10 Depcom Power Inc. ("Depcom")

11 James Lamon, Chief Executive Officer, Depcom

12 Kevin M. O'Brien and Christine M. Streatfeild - Of
13 Counsel

14

15 Curtis, Mallet-Prevost, Colt & Mosie LLP

16 Washington, DC

17 on behalf of

18 Korea Photovoltaic Industry Association

19 Hanwha Q Cells Korea Corporation

20 LG Electronics, Inc.

21 Hyundai Heavy Industries Green Energy Co., Ltd.

22 (collectively, "KOPIA")

23 Aaron Hall, President, Borrego Solar

24 Stephen Hahm, VP of Energy Business, LG Electronic USA

25 Kevin Kim, Head of Solar Business, LG Electronics USA

1 Dave Byrne, Senior Sales Manager of Solar Business, LG
2 Electronics USA

3 Bo Gyung Kim-Lauren, Senior Counsel, LG Electronics USA

4 Edward Balistreri, Associate Professor, Department of
5 Economics, Iowa State University

6 Daniel L. Porter and James P. Durling - Of Counsel

7

8 Akin Gump Strauss Hauer & Feld LLP

9 Washington, DC

10 on behalf of

11 China Chamber of Commerce for Import and Export of Machinery

12 and Electronic Products, Solar Energy and Photovoltaic

13 Products Branch ("CCCME")

14 Spencer S. Griffith - Of Counsel

15

16 Appleton Luff Pte. Ltd

17 Washington, DC

18 on behalf of

19 REC Solar Pte. Ltd ("REC Solar")

20 REC America, LLC (collectively, "REC")

21 Steven M. O'Neil, Chief Executive Officer, REC Solar

22 Edmund W. Sim and Kelley A. Slater - Of Counsel

23

24

25

1 Arent Fox LLP

2 Washington, DC

3 on behalf of

4 Hanwha Q Cells America Inc. ("Hanwha")

5 Sunghoon Kim, Senior Director of Sales Planning, Hanwha

6 Andres Munro, General Counsel Hanwha

7 Sam Yoon, Sales Planning Manager, Hanwha

8 John N. Gurley, Nancy A. Noonan and Claudia D.

9 Hartleben - Of Counsel

10

11 Vinson & Elkins LLP

12 Washington, DC

13 on behalf of

14 SunPower Corporation ("SunPower")

15 Thomas Werner, President and Chief Executive Officer,

16 SunPower

17 Daniel J. Gerkin - Of Counsel

18

19

20

21

22

23

24

25

1 Hogan Lovells US LLP

2 Washington, DC

3 on behalf of

4 Canadian Solar Inc.

5 Silfab Solar, Inc.

6 Heliene Inc. (collectively, the "Canadian Industry")

7 Vincent Ambrose, General Manager for North America,

8 Canadian Solar, Inc.

9 Paolo Maccario, General Manager and Chief Operating

10 Officer, Silfab Solar, Inc

11 Martin Pochtaruk, President, Heliene Inc.

12 Robert A. Rogowsky, Ph.D., Professor and Program Chair

13 of Trade and Economic Diplomacy at the Monterey Institute of

14 International Studies

15 Jonathan T. Stoel, Craig A. Lewis, Michael Jacobsen and

16 Mary Van Houten - Of Counsel

17

18 Smirnow Law

19 Washington, DC

20 on behalf of

21 8minutenergy Renewables LLC ("8minutenergy")

22 Arthur Haubensstock, General Counsel and Vice President,

23 Government & Regulatory, 8minutenergy

24 John P. Smirnow - Of Counsel

25

1 Giga Watt, Inc.

2 Placentia, CA

3 Deep Patel, Founder and Chief Executive Officer

4

5 Non-Parties in Opposition to the Petition:

6 PT, Sky Energy Indonesia

7 Indonesia

8 Jio Wu, Director of International Business Development

9

10

11 Rebuttal/Closing Remarks:

12 Petitioners (Timothy Brightbill, Wiley Rein LLP; and Matthew

13 J. McConkey of Mayer Brown LLP)

14 Respondents (Matthew R. Nicely, Hughes Hubbard & Reed LLP)

15

16

17

18

19

20

21

22

23

24

25

I N D E X

1		
2		Page
3	State Government Witnesses:	
4	The Honorable Paul Gazelka, State Senator, Minnesota	
5	State Senate	23
6		
7	The Honorable David Tomassoni, State Senator, Minnesota	
8	State Senate	27
9		
10	The Honorable Jason Saine, State Representative, North	
11	Carolina House of Representatives	31
12		
13	The Honorable Bucky Johnson, Mayor of the City of Norcross,	
14	Georgia	34
15		
16	The Honorable Lauren McDonald, Commissioner, Georgia Public	
17	Service Commission	38
18		
19	Luke Clippinger, Delegate, Maryland House of Delegates	42
20		
21	Al Christopher, Director, Division of Energy, Virginia	
22	Department of Mines, Minerals and Energy	44
23		
24		
25		

1	Embassy Witnesses:	
2	Embassy of the Republic of Korea	
3	Washington, DC	
4	The Honorable Chang K. Kim, Minister Counsellor for	
5	Trade, Industry & Energy	50
6		
7	Embassy of the Republic of Indonesia	
8	Washington, DC	
9	Reza Pahlevi Chairul, Commercial Attache	53
10		
11	Delegation of the European Union to the United States of	
12	America	
13	Washington, DC	
14	Sibylle Zitko, Senior Legal Advisor	55
15		
16	Embassy of Brazil	
17	Washington, DC	
18	Reynaldo Linhares Colares, Second Secretary	59
19		
20	Embassy of Mexico	
21	Washington, DC	
22	Aristeo Lopez, Legal Adviser in the Commercial and	
23	NAFTA Office of the Secretariat of Economy	62
24		
25		

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

I N D E X

Page

Embassy of Canada

Washington, DC

Carrie Goodge O'Brien, Counsellor (Trade Policy) 64

Taipei Economic and Cultural Representative Office

Washington, DC

Chien Chi Chao, Economic Officer 67

Opening Remarks:

Petitioner (Matthew J. McConkey, Mayer Brown LLP) 71

Respondents (Matthew R. Nicely, Hughes Hubbard) 75

Timothy C. Brightbill - Of Counsel 79

Juergen Stein, Chief Executive Officer, SolarWorld 87

Matt Card, Executive Vice President of Commercial
Operations, Suniva Inc. 94

Shane Messer, Vice President of Sales and Marketing,
SolarWorld 105

I N D E X

	Page
1	
2	
3	Edward Harner, Chief Operating Officer, Green Solar
4	Technologies 110
5	
6	Steve Shea, Consultant, Formerly Vice President at
7	Beamreach Solar 113
8	
9	Dave McCarty, Chief Operating Officer, Itek Energy 117
10	
11	Andrew Szamoszegi, Principal, Capital Trade Inc. 121
12	
13	Seth Kaplan, President, International
14	Economic Research LLC 126
15	
16	Emmarine Byerson, Senior Accounting & Risk Manager 132
17	
18	Frank Yang, Vice President of Business Development &
19	Marketing 135
20	
21	Tom Werner, President and CEO, SunPower Corp. 246
22	
23	Amy Grace, Head of North America Research, Bloomberg
24	New Energy Finance 250
25	

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

I N D E X

	Page
Craig Cornelius, Senior Vice President, Renewables, NRG Energy Inc.	256
James Lamon, Chief Executive Officer, Depcom	261
Dan Shugar, Founder and CEO, NEXTracker	265
Ed Fenster, Co-Founder and Executive Chairman, Sunrun Inc.	269
Bastel Wardak, President, California Solar Systems, Inc.	273
James P. Dougan, Vice President, Economic Consulting Services, LLC	275
Jonathan T. Stoel - Of Counsel	287
Paolo Maccario, General Manager and Chief Operating Officer, Silfab Solar, Inc	289
Martin Pochtaruk, President, Heliene Inc.	291

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

I N D E X

	Page
Vincent Ambrose, General Manager for North America, Canadian Solar, Inc.	293
Craig A. Lewis - Of Counsel	295
Aaron Hall, President, Borrego Solar	297
James P. Durling - Of Counsel	301
Steven M. O'Neil, Chief Executive Officer, REC Solar	305
Spencer S. Griffith - Of Counsel	307
Deep Patel, Founder and Chief Executive Officer	310
Jio Wu, Director of International Business Development	312
Rebuttal/Closing Remarks:	
Petitioners - Matthew J. McConkey of Mayer Brown LLP	413
Timothy Brightbill, Wiley Rein LLP	415
Respondents (Matthew R. Nicely, Hughes Hubbard & Reed LLP)	417

1 P R O C E E D I N G S

2 (9:32 a.m.)

3 MR. BISHOP: Will the room please come to order
4 and everybody find a seat?

5 CHAIRMAN SCHMIDTLEIN: Good morning. On behalf
6 of the United States International Trade Commission, I
7 welcome you to this hearing in Investigation Number
8 TA-201-75 involving crystalline silicon photovoltaic cells,
9 whether or not partially or fully assembled into other
10 products.

11 The Commission instituted this investigation on
12 May 17th, 2017 in response to a petition that was filed
13 under Section 202 of the Trade Act of 1974. This type of
14 investigation is often referred to as a global safeguard
15 proceeding. And this is the first time the Commission has
16 conducted such investigation since 2001.

17 A global safeguard investigation differs
18 significantly from the anti-dumping and countervailing duty
19 investigations that many of us are familiar with. As the
20 name implies, rather than focusing on imports from certain
21 countries, an investigation under Section 202 looks at the
22 impact of imports from all sources.

23 Additionally, the global safeguard proceeding
24 consists of two phases, an injury phase and if necessary a
25 remedy phase. Today's hearing focuses solely on the issue

1 of injury. Specifically, the Commission must determine
2 whether CSPV cells, whether or not partially or fully
3 assembled into other products, are being imported into the
4 United States in such increased quantities as to be a
5 substantial cause of serious injury or threat thereof to the
6 domestic industry, producing an article that is like or
7 directly competitive with the imported article.

8 The statute defines the phrase "substantial
9 cause" to mean a cause which is important and not less than
10 any other cause. The Commission is currently scheduled to
11 make its injury determination by September 22nd, 2017. If
12 the Commission reaches an affirmative determination with
13 respect to injury, or is equally divided on the question of
14 injury, the investigation will proceed to the remedy phase,
15 in which there will be a separate briefing opportunity and a
16 second hearing. If necessary, the hearing to address the
17 question of remedy will be held on October 3rd, 2017.

18 Section 202 F of the Act requires the Commission
19 to submit a report to the president within 180 days after
20 the date on which the petition was filed or by November
21 13th, 2017. If the Commission reaches the remedy phase, it
22 will send one or more recommendations to the president. And
23 it is the president who will ultimately decide whether to
24 impose a remedy and what that remedy will be.

25 The structure of our hearing today will be

1 similar to the structure we use in anti-dumping and
2 countervailing duty investigations. Those in support of the
3 petition will appear first and have 90 minutes for direct
4 testimony, followed by 10 minute rounds of questions from
5 the Commissioners.

6 Those in oppositions to the -- those in
7 opposition to the petition will appear second, again, with
8 90 minutes for direct testimony, followed by questions from
9 the Commissioners.

10 Before we begin with these witnesses, however,
11 we will have a number of state government witnesses and
12 embassy representatives who will present statements.
13 Schedules setting forth the presentation of this hearing,
14 notices of investigation, and transcript order forms are
15 available at the public distribution table. All prepared
16 testimony should be given to the secretary. Please do not
17 place testimony directly on the public distribution table.

18 All witnesses must be sworn in by the secretary
19 before presenting testimony. I understand that the parties
20 are aware of the time allocations. Any questions regarding
21 time allocations should be directed to the secretary.

22 Speakers are reminded not to refer in their
23 remarks or answers to questions to business proprietary
24 information. Please speak clearly into the microphone and
25 state your name for the record for the benefit of the court

1 reporter.

2 Finally, if you will be submitting documents
3 that contain information you wish classified as business
4 confidential, your request should comply with Commission
5 Rule 201.6.

6 Mr. Secretary, are there any preliminary
7 matters?

8 MR. BISHOP: I have a few housekeeping matters,
9 if I may, Madam Chairman?

10 CHAIRMAN SCHMIDTLEIN: Yes.

11 MR. BISHOP: I would request that everybody
12 please turn your phones to silence. You may put them on
13 vibrate, but please make sure that they're silenced.

14 I would also say hello to our colleagues and
15 friends over in courtroom A. We apologize that we were not
16 able to fit you in the room, but as you can see, this is a
17 very popular hearing and we just don't have the space for
18 everyone. Hopefully, we will get to let you come over at
19 some point as room permits in the room.

20 And I would also mention that all testimony
21 submitted for today's hearing will be posted on our website.
22 The copies on the tables may run out and we will not be
23 producing more copies. So it will all be posted to our
24 website where you can obtain that. There should be order
25 forms for the transcript on the table if we run out. Please

1 let Sharon or I know or Tyrell and we'll be happy to make
2 some more copies of that.

3 And with that, Madam Chairman, I have no other
4 preliminary matters.

5 CHAIRMAN SCHMIDTLEIN: All right. Thank you.
6 Will you please announce our first panel of witnesses?

7 MR. BISHOP: Our first witness on the state
8 government panel of witnesses is the Honorable Paul Gazelka,
9 state senator, representing the Minnesota State Senate.

10 CHAIRMAN SCHMIDTLEIN: Welcome. You may begin
11 when you're ready.

12 STATEMENT OF THE HONORABLE PAUL GAZELKA

13 MR. GAZELKA: Thank you and good morning,
14 Commissioners. And Senator Tomassoni and I both here. We
15 represent both sides of the aisle, but for us, it was both
16 important for us to be here.

17 Thank you very much for this opportunity to
18 speak to you today concerning this important trade
19 investigation. As mentioned, I am the majority leader of
20 the Minnesota Senate and proudly represent not only the
21 central district of Minnesota, but the entire state of
22 Minnesota.

23 As you may already be aware, we filed a letter
24 with the Commissioner last week concerning the potential
25 application of trade restrictions on solar products from

1 Canada. That letter was signed by a broad bipartisan group
2 that includes members of the Minnesota legislature, a member
3 of the governor's Minnesota cabinet, a regional
4 representative of 50 cities, 48 townships, and 15 schools,
5 all of them urging you to support solar manufacturing jobs
6 in the state of Minnesota and not apply an extraordinary
7 measures on imports from Canada.

8 The solar industry's important in my state.
9 Demand for solar energy is rapidly growing in Minnesota and
10 I see a bright future in this industry. According to the
11 statistics from the Solar Foundation, there were 2,872 solar
12 jobs in Minnesota in 2016. And 1,123 of these solar
13 installations and more than 300 are in solar manufacturing.

14 Minnesota ranks 16th in the nation in installed
15 solar capacity with enough solar power in 2016 to power
16 nearly 47,000 homes. In 2016, there were 118 solar
17 companies in my state. And the Solar Foundation estimates
18 its solar jobs grew 90 times faster than the overall state
19 economy in 2016.

20 We added an estimated 878 new solar jobs in
21 2016, which is a 44 percent increase over 2015, 44 percent.
22 And solar jobs are projected to grow another 16 percent in
23 2017. I want to give you that background, because I think
24 it's important for the industry in my state. And I want my
25 colleagues -- any of my colleagues that are concerned that

1 this investigation does nothing to injure the vital and
2 growing solar industry in Minnesota.

3 I understand that the Commission is both
4 authorized and obliged pursuant to U.S. law and the NAFTA --
5 and NAFTA to treat imports from Canada differently. I and
6 respectfully urge you to do so.

7 Sharing a common border, the economies of
8 Minnesota and Canada are closely intertwined and have
9 enjoyed a long history of mutual cooperation and investment.
10 This is perhaps nowhere better illustrated than in the case
11 of the solar industry, where a Canadian company is in the
12 process of invigorating the manufacturing sector of
13 Minnesota's iron range. That's a struggling manufacturing
14 area of rural Minnesota, a part that I used to be -- used to
15 -- came from, predominantly mining. And this was an area
16 that we were hoping would get another industry in there to
17 create some jobs in an area that's been hurting.

18 I understand you'll be hearing more testimony
19 today related to the investments made by the Canadian
20 producer Heliene in Mountain Iron, Minnesota. That's
21 northeast Minnesota. I want to simply note that this
22 investment is a perfect example of the kind of cooperative
23 cross-border trade that should not be disrupted or damaged
24 by this proceeding.

25 To its credit, the Canadian company Heliene has

1 recognized the great promise of manufacturing in Minnesota
2 and has staked its future with our state and its skilled
3 workers. Not only has this Canadian investment saved jobs
4 that were otherwise targeted for loss, but Heliene is now
5 looking to expand badly needed employment in this sector and
6 in this area in the near future.

7 I wonder whether this investment from Canada and
8 others like it can be expected to continue if the Commission
9 moves forward with restrictions on imports of vital
10 components from Canada. And I'm concerned it won't continue
11 if you do that.

12 But our interest in this proceeding extends well
13 beyond Heliene and its welcome investment in Mountain Iron.
14 I'm also concerned more broadly to preserve the large and
15 growing employment throughout Minnesota's solar sector, even
16 beyond the iron range.

17 As I mentioned, there are over 2,800 solar jobs
18 in Minnesota. And solar installation jobs accounted for
19 more than one in three. These installation jobs increased
20 224 percent last year as Minnesota continues to expand
21 residential utility scale and commercial solar
22 installations. These investments represent badly needed
23 employment significant in rural regions that have been hit
24 hard by the economy.

25 I want to encourage continued growth in this

1 sector. Therefore, I want also to encourage the Commission
2 to carefully consider what impact its actions in this case
3 may have on the continued vitality of the U.S. solar sector,
4 not only for manufacturing, but for many thousands of
5 related installations, distributions, and development jobs.

6 Once again, I want to thank you for the
7 opportunity to speak here today. Again, I wanted to say
8 that both Senator Tomassoni and I represent both sides of
9 the aisle. And for me, this particular area of Minnesota
10 needs this industry. Thank you.

11 MR. BISHOP: Our next witness on this panel is
12 the honorable David Tomassini, state senator representing
13 Minnesota State Senate.

14 STATEMENT OF THE HONORABLE DAVID TOMASSONI

15 MR. TOMASSONI: That was close. I'm used to it,
16 though. So good morning and thank you for this opportunity
17 to appear today to discuss the Commission's safeguard
18 investigation. I'm David Tomassoni, Minnesota State Senator
19 representing Senate District 6. Since 1993, I've been a
20 member of the Minnesota legislature: eight years in the
21 House of Representatives and the state senator for the last
22 17 years representing the state's 6th Senate district which
23 is home to about 80,000 Minnesotans.

24 I'm here today to urge the Commission to exempt
25 imports from Canada from the safeguards measures that are

1 contemplating in today's hearing. As my colleagues and I
2 noted last week in a bipartisan letter filed with the
3 Commission and as Senator Gazelka just pointed out,
4 Minnesotans benefit enormously from the solar trade with
5 Canada. Investments stemming from the Canadian solar trade
6 had brought much needed jobs and opportunities to our region
7 and it promises to be a continued source of growth in the
8 years ahead.

9 The residents of my district in particular would
10 suffer if the United States were to apply safeguard measures
11 against Canadian cells or modules. Minnesota's 6th Senate
12 district in the northern part of the state includes most of
13 the iron range, a region that is struggling to recover from
14 a stubborn economic downturn. The iron range is a resource
15 based economy on the iron -- on iron ore mining and logging
16 and is a rural manufacturing area that has an urgent need
17 for new investment and diversification.

18 Not only has manufacturing migrated away from
19 the region in recent years, but the region's historically
20 robust mining industry has been undercut by cheap imports of
21 metals from abroad. I always say when the steel industry
22 has a hiccough, the iron range gets the flu. These combined
23 forces have led to massive layoffs and persistent
24 unemployment. The boom -- this boom and bust phenomenon is
25 why I've worked hard alongside my colleagues in the state

1 government in a bipartisan manner to protect the U.S.
2 workers that call this region home. But truly
3 reinvigorating and stabilizing the economy, the iron range
4 will require new investments and means of economic
5 diversification.

6 The solar trade with Canada had opened doors for
7 such opportunities in this part of the state. The 6th
8 Senate district is home, for instance, to the Mountain Iron
9 solar manufacturing plant that my colleagues and I described
10 in our bipartisan letter last week.

11 Solar panel manufacturer Silicon Energy opened
12 the plant in 2011, bringing manufacturing jobs and
13 opportunities for growth to the region. When Silicon Energy
14 eventually encountered quality related problems,
15 Ontario-based Heliene came to the rescue, starting contract
16 work at the plant in 2015. Earlier this year, Heliene
17 assumed a lease to operate the entire Mountain Iron plant.
18 Not only did Heliene save the manufacturing jobs that
19 otherwise would have been lost, but the plant now generates
20 roughly double the number of the solar panels as Silicon
21 Energy.

22 Under Heliene, purchasers in the United States
23 have also noted that the high quality of our Minnesota
24 panels sets them apart from those of competitors. Given the
25 promise of this venture, the Minnesota Department of the

1 Iron Range Resources and Rehabilitation and the Minnesota
2 Department of Employment and Economic Development are
3 working with Heliene on a plan to invest nearly \$10 million
4 on new manufacturing equipment, plant expansion, and
5 supplies to expand production even further this fall.

6 This project will immediately create 25 new jobs
7 and eventually employing approximately 70 Minnesotans in
8 quality high-technology jobs and producing over 100
9 megawatts of solar panels. My district is excited by the
10 opportunities like this that are made possible by the
11 important relationship with our Canadian neighbors, but the
12 proposed safeguard measures would threaten the viability of
13 such investments.

14 Indeed if prohibitive safeguard duties or quotas
15 are imposed on the solar products from Canada, operations
16 like Heliene's Mountain Iron facility will no longer have
17 access to vital components and Minnesotans will suffer the
18 consequences.

19 We are grateful for the Commission's work to
20 protect U.S. manufacturers. And we could encourage the
21 Commission to consider that imposing restrictive measures
22 against our Canadian partners would inevitably harm workers
23 and producers in the United States as well.

24 Thank you very much for the opportunity to speak
25 to today. I would happy to answer any questions that the

1 Commission may have.

2 MR. BISHOP: Our next witness on this panel is
3 the Honorable Jason Saine, State Representative from the
4 North Carolina House of Representatives.

5 STATEMENT OF THE HONORABLE JASON SAINÉ

6 MR. SAINÉ: Good morning. Thank you, Madam
7 Chairman, Mr. Vice Chairman, and Commissioners for
8 permitting me to testify today. I'm Representative Jason
9 Saine from Lincoln County, North Carolina. I'm the second
10 vice chair and member of the board of directors of the
11 American Legislative Exchange Council. I'll be the chairman
12 of the board in 2019.

13 As a North Carolina state legislator, I am the
14 senior chairman of the House Finance Committee. The finance
15 committee is responsible to tax policy in North Carolina.
16 And in that role, I've helped deliver over half a billion
17 dollars in tax decreases for North Carolina's working
18 families.

19 Also, as a part of my involvement on the finance
20 committee, I've learned about the tremendous impact that
21 solar energy's contribution to the electric grid has had on
22 our state's most rural communities. Through private
23 investment, approximately \$9 billion was invested in clean
24 energy development in North Carolina between 2007 and 2016.
25 Yes, that's \$9 billion with a "B".

1 According to RTI International, 37 percent of
2 these solar investments occurred in what we call Tier 1
3 counties. That is North Carolina's 40 most economically
4 distressed counties. My district alone has seen \$30 million
5 dollars in solar investment, including projects at our local
6 Aldi grocery store and Lincoln charter school, where my son
7 attends.

8 North Carolina's the number 2 solar state in the
9 United States with just under 3 giga watts of solar
10 installed to date, and more on the way, thanks to new
11 legislation passed this year. This industry is an
12 incredible job creator with currently over 7,000
13 well-paying jobs in North Carolina. These jobs have grown
14 dramatically in the last several years, thanks to efforts
15 that the industry is making to compete with low cost natural
16 gas and other renewable energy sources like wind. Because
17 solar is becoming more technologically efficient, it can
18 compete and therefore increase its presence on the grid.

19 I also want to take a moment to draw your
20 attention to a few letters that were sent to the Commission
21 last week. A bipartisan coalition of 16 senators and 53
22 members of the House of Representatives signed on to letters
23 urging the Commission to consider the negative effects of
24 the proposed remedies to the American solar industry. It's
25 worth noting that the delegations from North Carolina and

1 South Carolina were well represented in these letters as my
2 state's industry could be one of the hardest hit from the
3 solar job losses. North Carolina Senator Thom Tillis was
4 the lead Republican signatory on the Senate letter. And
5 North Carolina Senator Richard Burr even sent a letter to
6 the Commission. These letters have been added to the record
7 and I urge you to take a look at them.

8 As a policy maker, every day, I'm faced with
9 decisions that can create trade-offs and therefore can
10 create winners and losers in any industry. Imposing tariffs
11 on imported modules is not the way to go about saving solar
12 manufacturing. It is about providing a government handout
13 to two companies that apparently couldn't provide their
14 customers with the specific kinds of products with
15 sufficiently high quality products they needed for their
16 installations.

17 As I understand, you will hear today, if this
18 petition is granted, it may save a few hundred cell or
19 module manufacturing jobs, but there are many thousands of
20 good manufacturing and installation jobs that will be lost.
21 The point is a remedy will do more harm than good here with
22 the only benefit going to a small number of companies that
23 frankly don't deserve it.

24 I'm here before you in opposition to the
25 proposed Section 201 safeguard case regarding solar cell and

1 module manufacturing in the United States. As a state
2 policymaker and a North Carolina resident, I want to see the
3 solar industry continue to thrive without government
4 intervention. Thank you for your time.

5 MR. BISHOP: Our next witness on this panel is
6 the Honorable Bucky Johnson, mayor of the city of Norcross,
7 Georgia.

8 STATEMENT OF THE HONORABLE BUCKY JOHNSON

9 MR. JOHNSON: Thank you. Good morning, Madam
10 Chairman and Commissioners. My name is Bucky Johnson and
11 I'm the current mayor of Norcross, Georgia. I began my
12 tenure as mayor in 2008. I've been reelected four times to
13 that position. Prior to being mayor, I was an educator and
14 taught at Georgia Tech most of my career. Thank you for
15 allowing me to testify at this important hearing today.

16 A little background about my city and community.
17 Norcross was founded in 1870 as a railroad town and as a
18 summer vacation destination for those that lived in Atlanta.
19 The population of Norcross currently is at 16,000 in six
20 square miles. We're located in Gwinnett County, which is
21 the fastest growing county in Georgia with a population of
22 almost 1 million.

23 We're close to Atlanta and to Georgia Tech.
24 From that proximity and relationship, Technology Park was
25 developed by Paul Duke, a Georgia Tech graduate in 1967.

1 It's one of the first technology centers in the country.

2 As mayor, one of my favorite stories to tell
3 until about four months ago was the story of Suniva, a
4 company that was founded in Norcross nine years ago. Suniva
5 was a spin-off of ATDC incubator program at Georgia Tech.
6 Their founders chose Norcross and Technology Park because of
7 our location, being close to Atlanta, and because of great
8 access to human capital in our county. We have one of the
9 best urban school systems in the country, as evidenced by
10 two prizes in the last six years with 180,000 students in
11 the public schools K through 12.

12 One of my first roles as mayor was to be part of
13 the groundbreaking ceremony for Suniva, along with other
14 city, county, and state officials. There's so much
15 excitement about high tech manufacturing and high tech jobs
16 at a time when the community was struggling with the great
17 recession. Solar technology fits perfectly with our
18 initiatives to be one of the top single cities in the state.

19 This year, Norcross was recognized by the
20 Atlanta Regional Commission at their highest level
21 sustainability platinum. Only one other local government in
22 Georgia holds that designation.

23 Suniva quickly partnered with Gwinnett Tech
24 using the state Quick Start program to train their new hires
25 and began tremendous growth and produced some of the most

1 efficient solar cells in the world. Suniva's a shining star
2 for our city, county and state, and won numerous awards and
3 recognitions.

4 American Advanced Manufacturing is a source of
5 pride and it's a valuable mix in a diverse economy. Suniva
6 became part of the DNA of our city until there was a turn in
7 the story. We were all shocked and dumbfounded when Suniva
8 idled its manufacturing operations in April. The people
9 that worked at Suniva lived in our community and invested in
10 our community. The success of Suniva is vitally linked to
11 our economy. We cannot succumb to foreign imports that
12 undercut our American made products.

13 The community was devastated to learn that
14 Suniva had to take Chapter 11 and lay off a majority of
15 their workers. I immediately called and asked what I could
16 do to help. As I learned of this safeguards case, I
17 realized I could do something in a constructive way to try
18 to bring back this vibrant, innovative business to our
19 community.

20 As I become more familiar with the forces that
21 so gravely damaged Suniva, I've sadly learned there are
22 other communities that have experienced or fear the same
23 impact that have happened in Norcross. The communities of
24 Michigan, Oregon, Washington, Ohio, California, Tennessee
25 and I could go on.

1 My understanding is that the solar manufacturing
2 industry has lost thousands of jobs and over a billion
3 dollars in capital investment by the demise of over two
4 dozen companies nationwide over the last five years.

5 That is why I'm here today to implore this
6 Commission to do all that you can do to give Suniva a
7 fighting chance to resurrect this business and this industry
8 for all Americans. Some might say protectionism. I say
9 bunk. Give us a fair shot at competing with international
10 businesses. We almost 300 jobs in Norcross and a thousand
11 more -- thousands more have been lost across the U.S. Given
12 a level playing field, I believe that Suniva and the solar
13 manufacturing industry can thrive in our economy and supply
14 some of the most innovative and sustainable products in the
15 world.

16 I believe you can help write a positive ending
17 to the story, but we're in a cliffhanger moment. I urge the
18 Commission to enforce U.S. law and act with bold
19 decisiveness in an expeditious manner that gives us a chance
20 to restore this industry to viability. Your findings will
21 be crucial to get this manufacturing industry in the U.S.
22 back on track. On behalf of all my citizens, I thank you
23 for your time, your wisdom, and your deliberation on this
24 important issue. Thank you.

25 MR. BISHOP: Our next Witness on this Panel is

1 the Honorable Lauren McDonald, Commissioner with the Georgia
2 Public Service Commission.

3 STATEMENT OF THE HONORABLE LAUREN MCDONALD

4 MR. MCDONALD: Thank you, Madame Chairman, Mr.
5 Vice Chairman and Commissioners. As you might be able to
6 tell from my accent and from my nickname is "Bubba", I'm
7 from the South. More specifically I'm from Georgia where I
8 have been blessed to serve 20 years in the State Legislature
9 and now serving my 13th year on the Georgia Public Service
10 Commission.

11 Most important is that I owned and operated two
12 successful businesses without any government subsidies. I
13 care deeply about Georgia electric consumers and Georgia
14 jobs and that is why despite sharing my home state with the
15 company that initiated this Petition, I am here before you
16 in opposition to the proposed Section 201 safeguard case
17 regarding solar cell and modular manufacturing in the United
18 States.

19 I have been asked to testify in these proceedings
20 because of my unique role in promoting the development of
21 solar energy in Georgia. As a result of my efforts over the
22 past ten years with the support of my colleagues on the
23 Georgia Public Service Commission we have successfully added
24 more than one gigawatts of solar energy to Georgia Power's
25 portfolio and an additional 1.6 gigawatts scheduled to come

1 online by the end of 2021. This will provide clean,
2 affordable solar energy to power over 400,000 typical
3 residential homes.

4 This has been accomplished with no upward
5 pressure on the rate payer and no state subsidies. The
6 expansion of the solar market benefits the entire United
7 States industry. Solar producers of cells, modules, panels
8 and installers as well as many downstream industries. In
9 2016 solar energy was the largest source of new electric
10 generation capacity with approximately 40 percent of such
11 capacity.

12 But more importantly the growth in the solar
13 energy benefits electric consumers. Those benefits are
14 immediate and lasting because solar energy provides clean,
15 reliable and renewable energy at low prices. These
16 attractive prices help hold down rates in the near term and
17 are a hedge against the price volatility of traditional fuel
18 sources for the next 20-30 years. There is no fuel cost
19 with solar.

20 We continue this progress without additional
21 government intervention in the market. The sky is the limit
22 provided that we do not take actions that harm the industry.
23 If the requested remedies are imposed, solar energy growth
24 will draw to a standstill. That outcome will have a
25 corresponding negative impact on jobs, economic development,

1 property tax revenue and investment in rural communities.
2 It will also deprive consumers of the benefit of
3 competitively-priced solar projects.

4 Thanks to the growth in solar development,
5 particularly the explosive growth in the utilities sector,
6 we are seeing tens of thousands of new jobs. These jobs pay
7 well. On the other hand, the numbers of employees producing
8 silicone solar cells in the United States is comparatively
9 tiny less than a thousand jobs. Solar is important to the
10 Georgia economy. There are 200 solar companies in Georgia
11 that have worked to install over 1500 megawatts and counting
12 making Georgia the number 8 state in the United States.

13 There are over four thousand Georgians employed
14 in the solar workplace. We have completed solar
15 installations with at least 30 megawatts at each of our five
16 Georgia military bases with a sixth installation of 139
17 megawatts and 510,000 solar panels under contract at Robbins
18 Air Force Base at Warner Robbins, Georgia. The DOD mandates
19 to have renewables as a part of the energy mix of military
20 bases.

21 A tariff on solar panels in my opinion would
22 likely result in the termination of this project and the
23 loss of about 2-3 billion in solar investments in jobs in
24 our state. Competitive forces and technology improvements
25 have driven declines in the cost of solar projects. The

1 economic case for solar has been demonstrated in my state.
2 We wouldn't be building solar if it increased cost to
3 ratepayers.

4 Solar energy prices are lower than ever and
5 consumers win because the savings directly affects their
6 utility bills. Solar is now competing with natural gas in
7 many regions. Fuel from the sun is free, natural gas is a
8 commodity. Each year solar technologies are becoming
9 cheaper and more efficient bringing the greater benefits to
10 Georgia economy and rate payers.

11 Any tariffs imposed with distort the market,
12 threatening tens of thousands of well-paying American jobs
13 and harming the economic viability of Georgia's future solar
14 projects. Many solar manufacturing companies have risen to
15 the challenge of competing and are not looking to the
16 government for protection. Instead, they are innovating and
17 investing in research and development.

18 The companies that filed in the section 201
19 Petition represent a majority of the marketplace. They are
20 here because their products are not economic and their
21 business model is not competitive. Thank you for your time.
22 I am happy to respond to any questions after this hearing
23 and I ask one favor. I have a very important vote at ten
24 o'clock at the Georgia Public Service Commission and I need
25 to step into that room and make a phone call and cast that

1 vote, Madam Chair. Thank you.

2 MR. BISHOP: Our next Witness is the Honorable
3 Luke Clippinger, Delegate with the Maryland House of
4 Delegates.

5 STATEMENT OF DELEGATE LUKE CLIPPINGER

6 MR. CLIPPINGER: Good morning, Madam Chairman,
7 Mr. Vice Chair and Commissioners. I'm Luke Clippinger. I
8 am a member of the Maryland House of Delegates, representing
9 the 46th Legislative District which includes South and
10 Southeast Baltimore City. We have the National Aquarium,
11 the Inner Harbor and a 125,000 of the most wonderful people
12 in the world.

13 I want to thank the Commission for permitting me
14 to submit testimony today regarding this proceeding. I've
15 served as a member of the House of Delegates since January
16 of 2011 and I'm presently a member of the Economic Matters
17 Committee and the Public Utilities Subcommittee which
18 oversees energy legislation.

19 My colleagues and I have worked on and
20 successfully passed legislation to increase the amount of
21 renewable energy deployed in our state and have successfully
22 grown the solar industry to more than 5400 workers as a
23 direct result. This petition threatens nearly half of that
24 workforce. I'm submitting my opposition to the proposed
25 Section 201 case regarding solar cell and module

1 manufacturing to ensure the continued development of solar
2 energy in Maryland.

3 As a legislator, I have supported and sponsored
4 legislation that expands access to renewable energy. In
5 2015 I was the lead sponsor of Maryland's Community Solar
6 Pilot Program, which will add almost 200 megawatts of
7 capacity and create opportunities for low and moderate
8 income Marylanders, not only to construct new solar arrays
9 but also to benefit from lower energy costs. The pilot just
10 got underway a couple weeks ago.

11 There are many project development and financing
12 risks associated with community solar projects making them
13 particularly sensitive to any cost shifts including cost
14 shifts that might come from this case. My opposition to
15 this Section 201 case is not to say that I do not support
16 domestic solar manufacturing, in fact, I'd like to see more
17 of it in Maryland. However, this isn't the right way to
18 bring more investment jobs to our state.

19 Killing off project demand will stifle
20 opportunities for development and the production of
21 necessary components for new solar arrays. Any tariffs
22 imposed would distort the market, threatening hundreds of
23 thousands of well-paying American jobs across the country
24 and thousands of jobs in Maryland harming economic viability
25 as well of Maryland's future solar projects.

1 I thank the Commission for your time.

2 MR. BISHOP: Our final Witness on this Panel is
3 Al Christopher, the Director of the Division of Energy with
4 the Virginia Department of Mines, Minerals and Energy.

5 STATEMENT OF AL CHRISTOPHER

6 MR. CHRISTOPHER: Good morning and thank you,
7 Madam Chairman, Mr. Vice Chairman.

8 MR. BISHOP: Pull your mic a little bit closer if
9 you would please.

10 MR. CHRISTOPHER: And Commissioners for allowing
11 me to submit testimony regarding this case. The Honorable
12 Todd P. Haymore, Secretary of Commerce and Trade for the
13 Commonwealth of Virginia submitted this testimony that I
14 will now read. He could not be here today.

15 For the last three years the Commonwealth has
16 worked diligently to create and grow a solar industry in
17 Virginia. Through a combination of policy and partnerships
18 we have enabled the industry in Virginia and established the
19 foundation for long-term industry growth. Virginia now
20 ranks in the top 20 in the nation for solar jobs with 3,236
21 jobs, a 65 percent increase from 2015.

22 Clean energy sector revenue in Virginia has grown
23 four-fold in the past three years under Governor McAuliffe
24 to 2 billion dollars. While these numbers are impressive,
25 we see this as just the early stages of strong industry

1 growth patterns. Virginia welcomes the idea of a stronger
2 domestic solar supply market and has actively pursued
3 potential manufacturers but our observation is that in
4 order for the rapid growth and demand to be fulfilled we
5 must in the meantime rely on international markets.

6 Disrupting this supply chain would hinder
7 industry growth, adversely impact demand and further delay
8 the growth of the domestic manufacturing industry. To
9 ensure the continued development of solar energy we oppose
10 the proposed section 201 safeguard case regarding solar cell
11 and module manufacturing in the United States.

12 Solar projects in Virginia not only represent
13 direct economic development opportunities but are a vital
14 marketing tool in attracting the growing number of companies
15 seeking renewable energy options when deciding where to make
16 investments. Given this growing component of economic
17 development, it is essential that consumers and businesses
18 have access to affordable, reliable and diverse energy
19 resources.

20 This platform is part of the
21 Governor's "all of the above" energy approach and key to
22 fulfilling the energy policy of the Commonwealth. In
23 Virginia there are no state-based subsidy programs leaving
24 solar to basically compete directly with natural gas and
25 other fuel sources. We must continue to diversify our fuel
mix, ensure the availability of low-cost reliable power and

1 not further disadvantage solar in an already competitive
2 energy supply market. Thank you.

3 MR. BISHOP: Madam Chairman that concludes direct
4 testimony from this Panel.

5 CHAIRMAN SCHMIDTLEIN: Okay, thank you very much.
6 I'd like to thank all of you for being here today. It's not
7 often that we have State Government Witnesses appear at the
8 hearing but we do very much appreciate you taking time out
9 of your busy schedules to come and share your views with us.
10 I'd also like to thank you for your public service in your
11 particular states. I will turn to my colleagues. Do
12 any of you have questions for any of the witnesses?

13 COMMISSIONER BROADBENT: Yes, I just had one
14 question.

15 CHAIRMAN SCHMIDTLEIN: Commissioner Broadbent?

16 COMMISSIONER BROADBENT: Mr. Saine, you mentioned
17 that you thought the Petitioners didn't really deserve the
18 protection and if you could just expand on that a little
19 bit.

20 REP. SAINÉ: The explanation being that you know,
21 we support free markets. We support competition and
22 propping up one industry over another as I mentioned in my
23 remarks we do pick winners and losers. We try to minimize
24 that as best we can as policy makers.

25 And so with the proposal I just feel like and we

1 (my colleagues) feel like that really puts us at a
2 disadvantage in support of very small portion by propping up
3 one particular part of the industry instead of allowing
4 things to compete and travel along a natural path.

5 COMMISSIONER BROADBENT: Okay, thank you very
6 much.

7 CHAIRMAN SCHMIDTLEIN: Does anybody else want to
8 comment?

9 (No response.)

10 CHAIRMAN SCHMIDTLEIN: Thank you very much.
11 Commissioner Williamson?

12 COMMISSIONER WILLIAMSON: Thank you. I also
13 appreciate your testimony. I just want to raise one
14 question that several of you talked about the number of
15 solar manufacturing jobs and you mentioned other jobs and
16 you also mentioned installation but it seemed like when
17 adding up the numbers there are a lot of other jobs that you
18 talk about when we talk about solar energy. So I was
19 wondering if somebody can briefly maybe describe what those
20 other jobs are?

21 SENATOR TOMASSONI: May I touch on it. I'm David
22 Tomassoni. So are you talking about the other jobs outside
23 of the solar industry that are --

24 COMMISSIONER WILLIAMSON: No, I'm talking about
25 the jobs that, solar manufacturing jobs. The sales and

1 modules. The installers. But I forgot whose numbers they
2 were but it seemed like there were a thousand other jobs
3 that they didn't describe and I was just curious as to what
4 those jobs are.

5 SENATOR TOMASSIONI: I wasn't the one who said it
6 but I can tell you this, that this is similar to the mining
7 industry in Minnesota where the spinoff jobs are a big deal.
8 So the direct manufacturing jobs are in my area for example,
9 in the mining industry, there is about 4,000 direct jobs but
10 the spinoff jobs are 2/1 and 3/1 and I believe this industry
11 is exactly the same in the fact that the installers are
12 probably the key jobs and maybe even more than the actual
13 manufacturing jobs. But without the manufacturing jobs you
14 don't get the installation jobs either.

15 REP. SAINÉ: Mr. Commission if I may add to that.
16 Any time you see lowering of energy cost across the grid,
17 having readily available energy at a lower cost does
18 incredibly increase the opportunities for manufacturing and
19 job recruitment in my State. We have seen that time and
20 time again and one of the reasons that we are able to be
21 competitive, that along with a good tax policy, has helped
22 us to recruit a number of businesses to our state and to
23 grow. I appreciate your question, thank you.

24 COMMISSIONER WILLIAMSON: Senator Gazelka are
25 you, you said there were 2,800 solar jobs in Minnesota,

1 about 1,100 of these in solar installation and about 300 in
2 solar manufacturing. I was trying to figure out where the
3 other maybe 1,500 were?

4 SENATOR GAZELKA: Commissioner, I'm not going to
5 have a direct answer on that for your today. When I came to
6 testify, it's interesting I think somebody said all of the
7 above for fuels and in my growing process I wasn't fully
8 favorable toward wind and solar and now that I see that for
9 example wind and natural gas is an incredible combination
10 and now solar is coming up and I don't want to discourage
11 that continued growth of solar, if it has the same path that
12 wind did. That it can be very successful for our country
13 and so I wanted to come here and offer my support.

14 Then secondarily I came because this particular
15 region of Minnesota was primarily mining and that continues
16 to struggle dramatically and here was a company from Canada
17 that resurrected a failing solar business and actually made
18 it successful and so that's why I wanted to be here.

19 COMMISSIONER WILLIAMSON: Okay, I want to thank
20 you for all of those answers and I probably will be
21 exploring this question with the parties later.

22 CHAIRMAN SCHMIDTLEIN: Vice Chairman Johanson?

23 VICE CHAIRMAN JOHANSON: Thank you, Chairman
24 Schmidtlein. I had no questions. I simple wanted to thank
25 you all for coming here today. I realize that some of you

1 came a long way. In addition, I grew up about two miles
2 from the Texas State Capitol in Austin and I know how
3 important the functions of state government are. So I
4 appreciate your public service. Thanks again.

5 CHAIRMAN SCHMIDTLEIN: Alright, thank you very
6 much. So with that we will dismiss this panel and move to
7 our next panel, which are Embassy Representatives.

8 MR. BISHOP: If our Embassy Representatives will
9 please come forward and be seated.

10 (Long pause for seating)

11 Our first witness for this Panel is the Honorable
12 Chang K. Kim, Minister Counselor for Trade, Industry and
13 Energy with the Embassy of the Republic of Korea.

14 STATEMENT OF THE HONORABLE CHANG K. KIM

15 MINISTER KIM: Thank you, Madam Chairman, Vice
16 Chairman and Commissioners. Good morning. My name is
17 Chiang Kim. I am Minister Counselor for Trade, Industry and
18 Energy at the Embassy of Korea in Washington, DC. I
19 appreciate this opportunity to offer some comments about
20 this very important investigation.

21 The Korean Government would like to emphasize
22 that safeguard measures should be taken with caution. Such
23 measures are imposed against the fair trade and that is why
24 they are considered extraordinary remedies. In support of
25 free trade, Korean Government is concerned about increasing

1 protections in International Trade. It is important that
2 our members of WTO restrain from taking protectionist
3 measures.

4 Article 4.2b of the WTO Safeguards Agreement
5 clearly stipulates that unless there is causal link between
6 the increase in imports of the product concerned and serious
7 injury or threats thereof then it is not permissible to
8 impose safeguard measures. We will also note that this case
9 will be the first time the United States considers
10 safeguards since entering the first of the course FTA. The
11 proper interpretation of these obligations will be
12 critically important in this proceeding.

13 The Article 10.5 of the course FTA stipulates
14 that "a party taking appropriate safeguard measures may --
15 imports of the originating party if such imports are not
16 substantial cause of serious injury or threat thereof."
17 Section 341a of the Course FT Implementation Act
18 specifically provides of the Commission's chair report to
19 the President whether imports of the Korean article are
20 substantial cause of serious injury or threat thereof.

21 U.S. Statute defines substantial cause as a cause
22 which is important and not less than any other cause. This
23 standout has two parts and both must be met. First,
24 increased imports from Korean must be of value and at prices
25 that can be reasonably considered to be important.

1 Second, even if the imports from Korea are
2 important, they must also be a cause of serious injury or
3 threat thereof. Not less than any other cause. Unless both
4 of these elements have been met the Commission should make a
5 negative determination for Korea.

6 In this case, imports from Korea do not meet
7 either of these two elements of statutory standard. The
8 volume of imports from Korea was quite low for most of the
9 periods being investigated. When imports from Korea
10 increased in 2016, these imports were to the utility segment
11 of the market and were products the domestic industry could
12 not supply.

13 Korean imports also have higher prices than other
14 imports. These key facts show that Korean Imports were less
15 important than other causes and were not themselves a
16 substantial cause. The Korean Government fully understands
17 the difficult step that the solar industry may have
18 experienced but those difficulties along do not justify
19 safeguard measures. Since safeguard measures are
20 taken against first-rate, the standards are higher and
21 careful decision is made. The Korean Government believes no
22 safeguard measures are justified in this case. Furthermore
23 if the United States takes a global safeguard measures
24 against the global imports the Korean Government
25 respectfully asks the Commission to make negative

1 determination with respect to imports from Korea in
2 accordance with the relevant U.S. law.

3 Thank you for your time and attention.

4 MR. BISHOP: Our next witness on this Panel is
5 Reza Pahlevi Chairul, Commercial Attach with the Embassy of
6 the Republic of Indonesia.

7 STATEMENT OF REZA PAHLEVI CHAIRUL

8 MR. PAHLEVI CHAIRUL: Chairman Schmidtlein, Vice
9 Chairman and Members of Commission -- good morning. I am
10 Reza Pahlevi Chairul, Commercial Attach at the Embassy of
11 the Republic of Indonesia and on behalf of the Government of
12 Indonesia thank you for the opportunity to speak today
13 regarding the U.S. safeguards investigations of CSPV cells.

14 Respectfully, my government and the solar model
15 companies we represent such as Peteska Energy in Indonesia
16 oppose any finding of serious injury or threat of serious
17 injury from increased imports. Together we urge the
18 Commission to exclude any Subject Imports from Indonesia as
19 a developing country from any remedy recommendation.

20 According to article 9.1 of the agreement on
21 safeguards, safeguards measures shall not be applied against
22 product originating from a developing country members as
23 long as its share of Subject Imports does not exceed three
24 percent. Based on U.S. Imports statistics, imports from
25 Indonesia were less than three percent for the entire Period

1 of Investigations.

2 We understand that imports statistics include
3 non-Subject Imports and therefore the present day share is
4 likely less than based on the report of this investigation.
5 I understand that the developing country exception of
6 Article 9.1 of the Agreement on Safeguard is not quantified
7 in U.S. Law. However, Section 203 of the -- requires the
8 precedent to consider international obligations if any
9 measure is taken.

10 If this investigations proceeds to the remedy
11 stage I urge the Commission to recommend that the precedent
12 exclude product from Indonesia as required by the agreement
13 on safeguards. The Commission should also be aware that the
14 models that they base on energy in Indonesia sold to the
15 United States were priced higher than the Petition
16 recommended remedy of 0.78 cents per watt minimum price.

17 These models were also sold to the off-grid
18 market for mostly personal use which is very different than
19 Petitioners' chosen markets. For additional information
20 please see the written submission of Sky Energy Indonesia
21 attached to the Government of Indonesia August 8th
22 prehearing injury brief.

23 In summary, I respectfully request that the
24 Commission make a negative determination at the injury phase
25 of these investigations or automatically I respectfully

1 request that the Commission exclude imports from Indonesia
2 from any proposed remedy. Thank you.

3 MR. BISHOP: Our next witness on this panel is
4 Sibylle Zitko, Senior Legal Advisor with the delegation of
5 the European Union to the United States of America.

6 STATEMENT OF SIBYLLE ZITKO

7 MS. ZITKO: Good morning Madam Chairwoman, Mr.
8 Chairman, Commissioners. My name is Sibylle Zitko. I am
9 the senior --

10 MR. BISHOP: Could you pull your mic a little
11 bit closer please.

12 MS. ZITKO: Okay. My name is Sibylle Zitko.
13 I'm the Senior Legal Advisor at the Delegation of the
14 European Union here in Washington. On behalf of the
15 European Commission, I would like to thank the United States
16 International Trade Commission for the opportunity to
17 participate in this hearing today.

18 At the outset, the European Commission would
19 like to recall that because of its very restrictive nature,
20 the safeguard instrument should only be used in exceptional
21 circumstances. After analysis of the public version of the
22 petition and the prehearing report, we believe that the
23 strict criteria required under the WTO Safeguard Agreement
24 for the imposition of safeguard measures are not met in this
25 case.

1 The European Commission has identified a range
2 of concerns in its prehearing submission of 8 August, of
3 which I would like to highlight the following today. First
4 regarding access to data. We recall that Article 3.2 of the
5 WTO Safeguard Agreement requires meaningful,
6 non-confidential summaries of confidential data to be
7 provided, so as to allow interested parties to have a clear
8 understanding of the claims, in order to be able to exercise
9 their rights of defense.

10 In the present case, however, the lack of
11 almost any data on imports or on the prices of domestic
12 products do not allow for a meaningful analysis and make a
13 price comparison in the public version of the petition very
14 difficult to follow. Second regarding increase in imports.
15 Under Article 19 of the GATT, safeguard measures may be
16 taken only if the increase in imports is a result of an
17 unforeseen development.

18 In the present case, however, the increase in
19 import volumes appears to be rather gradual and justified by
20 a considerable increase in U.S. consumption. Moreover, in
21 2012 and 2015, the U.S. imposed anti-dumping measures on
22 China and Taiwan, causing a partial replacement of imports
23 from those two countries by imports from other sources.

24 Third regarding import prices. The Petitioner
25 alleges that import prices decrease and are below the

1 domestic industry's prices. However, it appears that any
2 price decreases are in fact mainly due to the decrease in
3 raw material prices, as confirmed by the majority of U.S.
4 producers in the prehearing report.

5 Fourth, regarding injury and causal link. The
6 injury standard in the safeguard investigation is serious
7 injury, which is a more demanding standard than material
8 injury in anti-dumping or CVD investigations. In the case
9 before us, the domestic industry increased its production
10 sales capacity and capacity utilization over the period of
11 analysis.

12 As regards to its financial situation, the
13 domestic industry was last making already since 2012 and
14 before the increase in imports. The situation improved
15 significantly in 2015, despite the increase in imports of 83
16 percent in the same year. This shows that there is no
17 correlation between the increase in imports and the
18 difficulties experienced by the domestic industry, which we
19 believe must have been caused by other factors such as
20 inefficiency.

21 Information provided shows that the domestic
22 industry has been producing at a capacity utilization rate
23 of less than 50 percent throughout the period of analysis
24 that is even before the increase in imports. Nevertheless,
25 they made new investments to increase capacity, 34 percent

1 in 2016, thus worsening its already precarious situation.

2 Fifth, regarding public interest. Article 3.1
3 of the WTO Safeguard Agreement provides that use of
4 importers and users need to be taken into account in order
5 to assess whether the application of measures would be in
6 the public interest. It is important to recall that any
7 safeguard measure would affect not only low price imports
8 from Asian countries, which account for almost 76 percent of
9 total value of U.S. imports in 2016, and which have been
10 identified by the Petitioners as the main reason for their
11 losses.

12 But a safeguard measure would also cause
13 collateral damage to imports under fair conditions,
14 including from the EU, which are not responsible for any
15 injury suffered by the domestic industry. Since U.S.
16 consumption has increased by almost 400 percent over the
17 period of analysis, and the domestic industry could only
18 cover around ten percent of the demand, any safeguard
19 measure imposed would affect more than 90 percent of the
20 market, unduly increasing prices for U.S. imports, importers
21 and downstream users, limit the product choice and most
22 likely lead to shortages on the U.S. market.

23 In conclusion, the domestic industry does not
24 appear to be suffering any injury caused by an increase in
25 imports. We believe there are other factors responsible for

1 its poor economic performance, some of which may be
2 self-inflicted through inefficiencies, bad investments and
3 other reasons. Thus, the European Commission would like to
4 reiterate that the criteria for the imposition of safeguard
5 measures are clearly not met in this case, and thus the
6 investigation should in our view be terminated.

7 These comments are without prejudice to any
8 further comments that the European Commission may want to
9 submit at a later stage, in particular in response to any
10 new evidence and information which may become available on
11 the record. Thank you very much for your attention.

12 MR. BISHOP: Our next witness is Reynaldo
13 Linhares Colares, Second Secretary with the Embassy of
14 Brazil.

15 STATEMENT OF REYNALDO LINHARES COLARES

16 MR. COLARES: Thank you Madam Chair and
17 distinguished members of the Commission. Thank you for the
18 opportunity given to the Brazilian government to testify in
19 this case. My name is Reynaldo Colares, Second Secretary to
20 Brazilian Embassy, and Brazilian government would like to
21 highlight the relevant aspects that in its view should be
22 considered by the USA investigating authority in the ongoing
23 safeguard investigation.

24 The government of Brazil requests that the
25 contents of this document be presented as statements of the

1 Brazilian government in the process. The Brazilian
2 government would like to underscore that Article 9.1 of the
3 Agreement on Safeguards states that safeguard measures shall
4 not be applied against a product originating in the
5 developing country member, as long as its share of imports
6 of the product concerns an importing member does not exceed
7 three percent, provided that developing country members with
8 less than three percent import share collectively account
9 for not more than nine percent of total imports of the
10 product concerned.

11 Estimates based on the U.S. ITC interactive
12 tariff and trade -- indicate that the Brazilian exports of
13 the product under investigation to the U.S., despite having
14 reached 4,057,566 U.S. dollars in the period from January
15 2012 to December 2016, accounted for only 0.01 percent of
16 the total value imported by the USA in the same period.

17 Considering only the year 2016, imports
18 originating in Brazil accounted for only .004 percent of the
19 total value imported. The notice of initiation does not
20 disclose any statistics of the U.S. imports of the product
21 under investigation by country of origin. Without data in
22 this regard, it is impossible for Brazil to verify the
23 compliance with Article 9.1 of the Agreement on Safeguards.

24 As a way to ensure more transparency in the
25 process, the government of Brazil understands that the

1 investigating authority in the USA should fully disclose the
2 data concerning imports from developing countries, and
3 should explicitly indicate countries that will not be
4 subjected to the possible application of safeguard measures.

5 As I already pointed out, the investigating
6 authority in the USA should disclose the data concerning
7 imports of the product under investigation by country of
8 origin, so as to ensure compliance with Article 9.1 of the
9 Agreement on Safeguards. Therefore, in the case that
10 imports from Brazil represent themselves less than three
11 percent of the total U.S. imports and less than nine percent
12 when added to the imports from other developing countries in
13 the same situation, imports from Brazil should be excluded
14 from any provisional or final duty that may be applied.

15 The Government of Brazil therefore
16 respectfully requests that the arguments here presented be
17 taken into consideration by the U.S. authorities and be
18 fully addressed in the process. Brazil is certain that the
19 U.S. authorities are aware of the high injury standards that
20 should apply in a safeguard investigation, and is confident
21 that these standards, including transparency of data and the
22 rights of participation of interested parties will be
23 observed throughout the investigation. Thank you very much.

24 MR. BISHOP: Our next witness on this panel
25 Aristeo Lopez, Legal Advisor in the Commercial and NAFTA

1 Office of the Secretary of Economy with the Embassy of
2 Mexico.

3 STATEMENT OF ARISTEO LOPEZ

4 MR. LOPEZ: Thank you. Good morning Chairman
5 and members of the Commission. The government of Mexico
6 appreciates the opportunity to express its view on this
7 investigation in relation to Mexico's submission filed on
8 August 8, 2017. I will address the following points.

9 First, as we describe in our prehearing brief, Mexico did
10 not receive a written notice of initial determination of
11 this investigation pursuant to Article 8.024 of the NAFTA.

12 Second, based on the record, in our view the
13 Petitioners should not have been considered as
14 representative of the domestic industry. Third, according
15 to the petition, the initial determination and the ITC
16 prehearing report, the scope of the investigation excludes
17 several different products. However, there is an
18 explanation on the methodology used to exclude imports of
19 those products in order to conduct an analysis on the
20 imports.

21 In the absence of such explanation, it cannot
22 be distinguished the product under consideration from those
23 excluded from the investigation, as can be seen from the
24 entire description of the subheadings under investigation.
25 Fourth, regarding the injury analysis as confirmed by their

1 report, the domestic production capacity and production of
2 cells and models increased from 2012 to 2016.

3 In addition, according with the National Solar
4 Job Census 2016, employment grew 53 percent from 2012 to
5 2016. Therefore, it cannot be concluded that imports
6 injured U.S. production.

7 Fifth, imports of CSPV cells and models are
8 not substantial cause of serious injury. Mexico's import
9 share in terms of volume is less than three percent of total
10 U.S. imports, and Mexican imports are not among the top five
11 suppliers to the U.S. Rather, any such injury could easily
12 be attributed to all the reasons as described in our
13 submission.

14 Sixth, there is no analysis in the record to
15 sustain that as a result of unforeseen developments and the
16 effects of obligation, including tariff concessions, imports
17 of CSPV cells and models into the U.S. have increased in
18 such quantities and under such condition as to cause or
19 threaten to cause serious injury to the domestic industry,
20 as established by Article 19.1(a) of GATT.

21 Finally, as it was mentioned by a Mexican
22 exporter in this investigation, in the event that the
23 Commission makes an affirmative injury determination, it
24 should determine that according with Article 8.02 of NAFTA
25 and 19 U.S. Code Section 3371(a), Mexican exports considered

1 individually did not account for a substantial share of
2 total imports, and did not contribute importantly to the
3 serious injury and threat thereof. Thank you very much.

4 MR. BISHOP: Our next witness on this panel is
5 Carrie Goodge O'Brien, Counselor of Trade Policy with the
6 Embassy of Canada.

7 STATEMENT OF CARRIE GOODGE O'BRIEN

8 MS. O'BRIEN: Good morning Chairwoman, Vice
9 Chairman and Commissioners.

10 MR. BISHOP: Pull your mic a little bit closer
11 if you would please.

12 MS. O'BRIEN: Sure. The Government of Canada
13 appreciates the opportunity to present its views to the
14 Commission in this case. Both the Governments of Canada and
15 Ontario share the concerns of industry and stakeholders on
16 both side of the border and duties that are applied as a
17 result of this investigation. It would have negative
18 commercial implications for the North American solar
19 industry, adversely impacting its ability to compete
20 globally.

21 Trade between Canada and the United States
22 depends on a high degree of cross-border integration, which
23 allows for complex supply chains and industry collaboration
24 supporting a competitive and innovative North American
25 economy. The Canadian and U.S. solar supply chains are

1 integrated and complement one another.

2 For example, when U.S. solar manufacturing
3 plants cannot meet domestic demand, Canada's solar sector
4 has been a supportive supply chain partner to the U.S. solar
5 sector. The imposition of duties on solar products would
6 risk undermining this important relationship, negatively
7 impacting both Canadian and U.S. industry and consumers.

8 Canada would also like to address an important
9 legal issue, that of the special provisions of NAFTA that
10 apply to U.S. safeguard investigations, to ensure that they
11 are fully respected and properly interpreted. Here, we have
12 two main points. The first, that imports from Canada must
13 be excluded from any safeguard measure if they do not
14 account for a substantial share of total subject imports,
15 and they do not in this case.

16 Second, the appropriate NAFTA rules of origin
17 must be applied in order to determine which imports are to
18 be considered originating in Canada. Under U.S. law, the
19 Commission must determine whether imports from a NAFTA
20 country account for a substantial share of total imports.

21 An affirmative determination concerning
22 substantial share with respect to Canada can only be made if
23 Canada ranks among the top five suppliers of the product
24 under investigation. If Canada is not ranked in the top
25 five supplying countries, the Commission must find that

1 imports of solar cells and modules from Canada do not
2 account for a substantial share of total imports, and the
3 President must exclude Canadian imports from any resulting
4 safeguard measure.

5 All available import data show that Canada
6 does not rank within the top five supplying countries.
7 Therefore, under NAFTA rules and U.S. law, imports from
8 Canada cannot be considered to account for a substantial
9 share of total imports.

10 Our second point relates to the applicable
11 rules of origin for Canadian products. Specifically, solar
12 modules manufactured in Canada using imported cells must be
13 considered to be of Canadian origin. Under NAFTA and U.S.
14 law, there are specific rules for determining whether an
15 imported good is considered to originate in a NAFTA country.
16 While the Petitioners point to other rules of origin
17 applicable in the context of anti-dumping investigations,
18 nothing in U.S. law nor in NAFTA provides for their
19 application in global safeguard investigations.

20 Rather, the applicable rules of origin are
21 clear, unambiguous and binding. For solar cells and
22 modules, no change in tariff classification is required for
23 these goods to be considered as originating in Canada. In
24 addition, as indicated in our prehearing brief, U.S. Customs
25 and Border Protection has previously ruled that solar

1 modules manufactured in a NAFTA country from imported cells
2 are correctly designated to be of NAFTA origin.

3 In conclusion, in accordance with U.S. law and
4 NAFTA rules, we respectfully ask the Commission to conclude
5 that there is no justification for including imports from
6 Canada if the Commission makes an affirmative injury
7 determination, and we also ask that the Commission find that
8 solar modules produced in Canada from non-originating cells
9 be considered as originating in Canada for the purposes of
10 this investigation. I thank the Commission for permitting
11 me to testify today.

12 MR. BISHOP: Our final witness on this panel
13 is Chien Chi Chao, Economic Officer with the Taipei Economic
14 and Cultural Representative Office.

15 STATEMENT OF CHIEN CHI CHAO

16 MR. CHAO: Thank you, good morning Madam Chair
17 and Commissioners.

18 MR. BISHOP: Could you pull your mic just a
19 little bit closer please. Thank you.

20 MR. CHAO: Sure. Good morning and
21 distinguished Commissioner. Thank you for the opportunity
22 to testify today. My name is Chien Chi Chao. I am an
23 economic officer with the Taipei Economic and Cultural
24 Representative Office in United States, representing the
25 government of Taiwan with the support of the Taiwan Photovoltaic

1 Industry Association.

2 Taiwan, in support of the brief submitted by
3 the Solar Energy Industry Association, will highlight
4 two issues from our pre-hearing injury brief, and
5 respectfully refers the Commission to that brief for
6 elaboration of these points.

7 First, cell imports have no adverse effect on
8 the domestic industry. The nature of the domestic industry
9 evidences that such imports are necessary. As Petitioners
10 and the Commission recognize, most cells produced in the United
11 States are internally consumed, leaving very few domestically
12 produced cells available for commercial sale. Meanwhile,
13 domestic demand for cells has outgrown domestic supply of
14 the same. Thus, even without imports domestic cell
15 producers would not be able to meet the growing domestic
16 demand for cells.

17 U.S. module producers who do not manufacture
18 their own cells needs imports in order to be competitive.
19 In particular, they need high efficiency cells. The utility
20 segment has driven U.S. demand for solar cells and modules.
21 Yet domestic producers have failed to meet this demand. And
22 irrespective of market segments, U.S. producers and purchasers
23 have indicated that, as with cells more generally, there is
24 an insufficient supply of domestically produced high
25 efficiency cells, to the degree that such supply exists at

1 all. Imports of high efficiency cells cannot be adversely
2 affecting the same producers that need them.

3 Second, Taiwan has provided the U.S. market
4 with its needed supply of CSPV products, especially high
5 efficiency cells. Although the industry produces both cells
6 and modules, most of Taiwan's solar exports to the United
7 States are of cells. As indicated in our brief, direct
8 shipments of modules from Taiwan are negligible, and
9 Taiwanese producers focus on cells because this is what the
10 U.S. downstream module market relies on for the production of
11 their modules or panels.

12 Indeed, in case the Commission rules that
13 the U.S. industry has suffered serious injury, this cannot
14 be attributed to Taiwanese imports. To the contrary,
15 Taiwanese producers, especially cells manufacturers, help the
16 U.S. producers to remain competitive by supplying the high
17 efficiency cells that they need.

18 Moreover, as the data shows, after the
19 imposition of the anti-dumping order in 2015, Taiwanese
20 cell imports to the U.S. have substantially declined. I
21 thank you for your time. Thank you.

22 COMMISSIONER SCHMIDTLEIN: All right. Thank
23 you very much. I'd like to thank all of the witnesses for
24 being here today. We do appreciate your time and you coming
25 to share your views with us. I have one question for the

1 representative from the Mexican Embassy, and that has to do
2 with the identification of Mexican producers of cells.

3 Apparently, we are aware that there is one
4 producer of cells in Mexico, the I-3 group. Are you aware
5 if there are any other producers of cells in Mexico?

6 MR. LOPEZ: Yes. I mean I think there are
7 some other producers. Yes, but I don't have specific detail
8 about that, the specific companies.

9 COMMISSIONER SCHMIDTLEIN: Okay. Would you be
10 willing to provide that information to the Commission
11 post-hearing?

12 MR. LOPEZ: On other Mexican --

13 COMMISSIONER SCHMIDTLEIN: Producers of cells?

14 MR. LOPEZ: Producers. I mean I'll do my best
15 to get that information.

16 COMMISSIONER SCHMIDTLEIN: Okay, okay. We
17 would appreciate it. Of course like the quality of our
18 decision depends on the completeness of the record that we
19 have before us. We also did not receive a questionnaire
20 response from the I-3 group in Mexico. I'm wondering if you
21 would be willing to encourage them to submit and respond to
22 the ITC's request for a questionnaire response.

23 MR. LOPEZ: Yes ma'am, and we'll do our best
24 to get that.

25 COMMISSIONER SCHMIDTLEIN: Okay. I appreciate

1 that. Thank you. Do Commissioners have any questions for
2 this panel? All right. Thank you very much. I will
3 dismiss you now.

4 MR. BISHOP: Madam Chairman, we will now turn to
5 opening remarks. Opening remarks on behalf of Petitioners
6 will be given by Matthew J. McConkey of Mayer Brown.

7 Mr. McConkey, you have five minutes.

8 OPENING REMARKS OF MATTHEW J. MCCONKEY

9 MR. MCCONKEY: So good morning. We are here today
10 to discuss the 201 Global Safeguard Petition filed by
11 Domestic Producers of CSPV Cells and Nodules. But I am
12 going to start with a little short history lesson.

13 So this safeguard concept was recognized back in
14 the early 1930s when the United States acknowledged that if
15 it was going to liberalize its trade policies, that U.S.
16 producers could be harmed by a resulting increase in
17 imports. Indeed, even if foreign exporters did not
18 necessarily unfairly trade their products, as global trade
19 increased the U.S. recognized that domestic companies could
20 need some flexibility to adjust to new levels of imports.

21 Accordingly, the United States began to enter
22 into trade agreements that included escape clause or
23 safeguard mechanisms to provide this type of relief.
24 Thereafter, Article 19 of the GATT included an escape clause
25 provision.

1 In 1974, Section 201 of the Trade Act of '74
2 became U.S. law, the law called Global Safeguards. Since
3 Section 201 has gone into force, there have been relatively
4 few cases, especially when compared to Title 7. Why?
5 Because the need to demonstrate that the increased
6 quantities of imports are a substantial cause of serious
7 injury.

8 Indeed, we recognize that's a fairly high bar,
9 especially when compared to Title 7 cases. However, if
10 there's ever been a 201 case where a finding of serious
11 injury is warranted, it is this one.

12 Of the two co-petitioners in this case, my client
13 Suniva is in Chapter 11. SolarWorld's parent is in
14 bankruptcy. But this is not just about Suniva and
15 SolarWorld. Far from it.

16 The Commission's own prehearing staff report at
17 Table III-3 provides a chart identifying domestic CSPV Cell
18 and module producers that have gone out of business in the
19 last five years.

20 As that table puts into stark relief, the United
21 States is literally strewn with the carcasses of shuttered
22 solar manufacturing facilities. We'll see in those who
23 appear today in opposition to this 201 would like those
24 looking at this case to focus on the Petitioners only. It's
25 not just about those two companies who happen to last the

1 longest. It's about all of those companies and their
2 workers who are out of business.

3 The data set forth in the Commission's staff
4 report reveals a domestic industry that is literally on the
5 precipice of being extinguished. U.S. module manufacturers
6 suffered net losses exceeding a billion dollars over a
7 five-year period.

8 Levels of R&D investments assigned to cell
9 operations declined throughout the period. Ten of thirteen
10 U.S. producers reported imports had undermined investments.

11 Even as U.S. demand for solar products increased
12 from 2012 to 2016, foreign suppliers, including those from
13 China, Korea, Canada, and Malaysia, began capturing an even
14 larger share of the U.S. market.

15 But then we saw module prices drop by a third in
16 the second half of 2016, during a year when all imports
17 increased by 50 percent from the previous year. Again, all
18 of this is against the backdrop of increasing global
19 overcapacity that outstripped growing demand, massive
20 domestic closures and bankruptcies, and nearly a five-fold
21 surge of imports. A five-fold surge of imports is hardly
22 "gradual."

23 If this isn't serious injury, then that concept
24 has no meaning. So this leaves us with causation.

25 Arguments have been raised even earlier this

1 morning and in the last of the prehearing briefs that Suniva
2 and SolarWorld somehow brought their financial problems on
3 themselves. Not only are these arguments factually false,
4 they're offensive. Really?

5 The almost 30 members of the domestic industry
6 who have gone out of business in the last five years, as
7 well as Suniva and SolarWorld, all of them made bad business
8 decisions or substandard product? While the Chinese,
9 Koreans, Canadians, Malaysians were all brilliant business
10 strategists? Please.

11 Finally, before we get into the substantive
12 portion of today's testimony, since the filing of this
13 Petition, those opposed have been frenetic in the media
14 about the impact of the 201 Petition's suggested remedies
15 would have on installers and others in the solar value
16 chain.

17 I urge the Commission, and more importantly those
18 that are here in opposition to this Petition, to remember
19 the only issue present today is that of injury to the
20 domestic manufacturing industry. We will get to remedy
21 later this fall.

22 Thanks.

23 MR. BISHOP: Opening remarks on behalf of
24 Respondents will be given by Matthew R. Nicely of Hughes
25 Hubbard & Reed.

1 Mr. Nicely, you have five minutes.

2 OPENING REMARKS OF MATTHEW R. NICELY

3 MR. NICELY: Good morning. I am Matt Nicely. I
4 represent the Solar Industry Association, an American trade
5 association of over 800 members.

6 SEIA and its members oppose this Petition and urge
7 the Commission to vote negative in the injury phase of this
8 investigation. The broad solar industry that SIA represents
9 is made up of over 260,000 workers, a number of whom are
10 here today because their livelihoods are at stake.

11 One out of every 50 new jobs created last year in
12 the United States was a solar job. Solar is an American
13 success story whose future remains bright. Its continued
14 success could be destroyed by the misguided actions of the
15 two Petitioners and their small group of supporters whose
16 workers represent less than one percent of all those that
17 work for this dynamic American industry.

18 Indeed, this group represents a very small
19 minority of U.S. solar manufacturing jobs. The Petitioners
20 make it seem like this is a simple case. Imports increased.
21 The industry performed poorly. So they think they deserve
22 relief.

23 But of course it's not nearly this simple. The
24 standard for relief under Section 201 is much higher than
25 the Commission faces in ABCD cases like those against the

1 CSVP products from China and Taiwan. In a safeguard case,
2 rather than merely having to find that imports contributed
3 to the industry's material injury, here you must find that
4 the increased imports were the substantial cause of the
5 industry's serious injury.

6 The words that Congress and the members to the
7 WTO used here are critical. You must (a) find that the
8 industry experienced much more severe injury than was
9 required under ABCD law; and (b) the measure--you must
10 measure whether the increase in imports were no less
11 important than any other cause of injury.

12 We do not agree with the Petitioners that this
13 industry is seriously injured. And even if it is so
14 injured, we have demonstrated that increased imports are not
15 among the most important reasons for that injury.

16 Let me highlight a few points for you to consider
17 as you listen to the Petitioners' presentation this morning.

18 In the ABCD solar cases, the record showed that
19 the domestic industry was on the decline during the periods
20 investigated. Here the record shows that the domestic
21 industry was on the rise during the POI.

22 Capacity increased during the POI, as did
23 production, as did commercial shipments. Meanwhile, the
24 industry's costs fell dramatically as everyone in the
25 industry expected them to. This has caused demand for cells

1 and modules to soar. New entrants are building plants in
2 response. Have some companies failed? Yes. But that's the
3 core nature of a high-tech industry.

4 You must innovate to keep up and deliver quality,
5 reliable products at scale. The Petitioners have failed
6 badly and their failure has nothing to do with imports.

7 Listen later today to our witnesses who will tell
8 you about how Suniva's ion implant cell technology was a
9 commercial failure; how Suniva shipped its cells to other
10 countries to assemble into modules because its own module
11 assembling facility in Michigan was poorly designed; how
12 Suniva and SolarWorld both failed to take advantage of
13 opportunities to sell to some of the largest residential
14 solar developers in the country; how both companies failed
15 to meet basic delivery and product quality standards,
16 leading to a loss of repeat business. And, how SolarWorld
17 had the opportunity to sell American-made 72-cell modules to
18 utility-scale developers but filled those orders with
19 imports instead, because they clearly don't have the
20 capacity to meet U.S. demand for those products.

21 Our witnesses will explain how the Commission's
22 questionnaire data and economic modeling also support our
23 position. That imports are not among the most important
24 causes of any injury is proven, among other things, by the
25 following:

1 The domestic producers did not have the capacity
2 to meet booming demand created by cost-reducing technology
3 advances. Most of the increase in imports occurred in the
4 utility-scale segment where domestic producers largely do
5 not participate. And, there is no predominant underselling.

6 That the two Petitioners would even bring this
7 case demonstrates their poor business judgment and their
8 hubris. They seek a public remedy for their own private
9 failings. If successful, they will undermine the hard work
10 and innovation that is making solar a viable alternative to
11 conventional energy sources.

12 The Commission can and should prevent this
13 ill-advised case from proceeding and allow this clean energy
14 source to thrive along with the thousands of jobs it
15 creates.

16 We look forward to spending the day with you.

17 MR. BISHOP: Would the members of the panel in
18 support of the Petition please come forward and be seated.
19 If there are any members in Courtroom A, would you please
20 come over to the main hearing room. Thank you.

21 (Panel is seated.)

22 CHAIRMAN SCHMIDTLEIN: Good morning. Before we
23 get started with Petitioners' panel, I just wanted to
24 acknowledge that we are aware that there are people who were
25 not able to get in to the building this morning, and my

1 understanding is that we are trying to accommodate them with
2 opening our third courtroom upstairs.

3 So I'm not sure exactly what the status of that
4 is, but I do apologize for that. I think there were a
5 number of members of SEIA who were not able to get in, and
6 so we hope that we are able to get courtroom C open with a
7 video feed and get those people inside. So I just wanted to
8 make a note of that.

9 Mr. Secretary, do you have a preliminary matter?

10 MR. BISHOP: Madam Chairman, I would note that the
11 panel in support of the Petition have been seated. All of
12 these witnesses have been sworn.

13 CHAIRMAN SCHMIDTLEIN: Alright, thank you very
14 much. And you all may begin when you're ready.

15 STATEMENT OF TIMOTHY C. BRIGHTBILL

16 MR. BRIGHTBILL: Thank you, Chairman Schmidtlein,
17 Vice Chairman Johanson, Commissioners Williamson and
18 Broadbent, and staff. I am Tim Brightbill for Wiley Rein on
19 behalf of SolarWorld and the domestic industry.

20 Today we will review the standards under
21 safeguards law, the domestic industry, the legal standard we
22 face, the conditions of competition for this industry, and
23 then imports, serious industry, and threat.

24 As the Commission is well aware, the domestic
25 industry in this case has been largely wiped out by the

1 global import surge. And even one of the two Petitioners
2 has been forced out of business. And nearly 30 solar cell
3 and modular producers have been forced to close since 2012.
4 SolarWorld, based in Oregon, more than 40 years of
5 experience, once had 1,300 workers. Today it has only 300
6 workers. Suniva declared bankruptcy and was forced to close
7 earlier this year.

8 You have already heard the preposterous claim
9 that the domestic industry brought this injury on itself;
10 that they, the victims, are responsible. And you'll hear it
11 more this afternoon. So please keep these facts in mind
12 when you hear those unfounded allegations:

13 SolarWorld, most recommended and carried by U.S.
14 installers, highest quality standards, leading sustainable
15 solar manufacturer, A+ rating Better Business Bureau, 2016
16 Manufacturer of The Year.

17 The same is true for Suniva. It has been widely
18 recognized as a leader not only in renewable energy but in
19 manufacturing as a whole. That is, until it was forced into
20 bankruptcy earlier this year. 2016 Georgia Manufacturer of
21 the Year; Renewable Energy Exporter of the Year; and so on.

22 The vast majority of the domestic industry is no
23 longer in existence--closed, bankrupt, shut down. All of
24 these companies, all of these jobs, all of this innovation
25 and R&D and knowhow, is now gone.

1 Did all of these companies somehow bring about
2 their own demise? Of course not. What is the real cause?
3 It is obvious. And this does not capture the negative
4 upstream and downstream effects of all of these closures.

5 The legal standard has already been outlined.
6 You must determine whether imports have increased in such
7 quantities as to be a substantial cause of serious injury to
8 a domestic industry or a threat thereof.

9 All of the factors outlined here are present in
10 this case. We agree that safeguard measures should only be
11 used in extraordinary cases. This is such an extraordinary
12 case. And I would also point out--and everyone in this room
13 should understand--we didn't want to bring this trade case.
14 We were forced to bring this trade case by the conditions in
15 the market.

16 What are those conditions?

17 We'll start with demand conditions. Demand in
18 the United States grew strongly during the Period of
19 Investigation. Solar installations increased by 350 percent
20 during the period. The United States is now the second
21 largest solar market in the world behind only China.

22 U.S. producers, importers, and purchasers all
23 reported increasing demand. Demand in other major markets
24 has been stagnant, even in China is leveling off. The major
25 and defining supply condition is global overcapacity, a

1 situation that this Commission has seen time and time again
2 but rarely to this degree.

3 Global capacity has expanded dramatically. There
4 is massive global overcapacity among many producers. In
5 addition, we would point out that many foreign producers
6 have production operations in multiple countries and are
7 able to shift that production and those exports rapidly from
8 country to country.

9 Here are a few stories confirming what the
10 Commission's data already clearly show. In fact, there is
11 universal agreement in this industry on what happened here.

12 So you have IHS Technology, Solar industry
13 renewed oversupply and shakeout. The first half of 2016 has
14 seen unprecedented levels of PV installations driven by
15 China. It will be China that causes a dramatic slump in
16 global demand in the second half of the year. As China
17 pulls back, prices are expected to plummet. Huge
18 expansions of production capacity will add to the
19 oversupply.

20 Here from Bloomberg: Looming glut eroding panel
21 prices. Solar manufacturers that are ramping up production
22 face a looming glut of panels. Oversupply appears to be
23 business as usual in the solar industry.

24 Here are two charts also from Bloomberg New
25 Energy Finance that show why the injury in the Commission's

1 data is actually under-stated to some degree.

2 First, on the left Total Global Capacity is
3 considerably greater than the Commission's data shows due to
4 many foreign producers who failed to respond to your
5 questions.

6 The second chart on the right. The second half
7 of 2016 was particularly bad as over-capacity and the price
8 collapse crushed the bottom line of U.S. producers. This
9 serious injury continued and accelerated in 2017.

10 One more headline from again Bloomberg: No new
11 China to save the day as solar faces glut. The solar module
12 industry is careening toward one of the worst supply gluts
13 in its history--this was written last September. The sheer
14 scale of the over-supply may still be lost on many in the
15 industry. This will feel familiar to anyone who was in the
16 solar business earlier this decade.

17 Now turning to the Commission's data. Imports
18 increased nearly 500 percent during the period. By
19 quantity, it was 492 percent. Because of the collapse in
20 prices, the value of imports increased by, quote, "only 270
21 percent." There were triple digit increases for several of
22 the largest suppliers. Some countries that had never
23 exported CSPV products to the United States became major
24 suppliers almost overnight.

25 This chart demonstrates that the import surge is

1 not just about China or one or two countries, and it also
2 confirms the rapidity of potential surges. The smallest
3 percentage increase on this chart is over 100 percent for
4 Japan. The percentage increase for imports from Thailand
5 and Vietnam is literally off the charts.

6 As this chart shows, despite amazing growth in
7 U.S. solar installations with solar demand being strong,
8 imports captured practically all of the increase in demand
9 during the POI.

10 The domestic industry's already weak market share
11 also fell during this period. This led to the destruction
12 of the U.S. industry. Nearly 30 production facilities
13 closed. SolarWorld and Suniva both closed facilities.
14 Massive net and operating losses, and layoffs.

15 Across the period, import prices collapsed.
16 Overall, cell prices fell by 60 percent during the period.
17 Module prices declined by almost 60 percent. And this is
18 reflected in the pricing product data as well, as you see.

19 This chart shows how the two antidumping cases
20 brought some stability to pricing in 2014 and 2015. They
21 had an effect for a while. However, despite growing demand,
22 prices for domestic modules plunged again in 2016 as a
23 result of the global import surge.

24 The domestic industry has suffered serious
25 injury. The statutory indicators are all present.

1 Significant idling of facilities, as we've discussed.
2 Inability to make a profit. A total operating loss over the
3 period of \$865 million. That is an abysmal negative -44
4 percent in 2016. Negative forty-four percent.

5 Employment in the industry fell till 2015,
6 increased in 2016, but then when Suniva shut down and with
7 SolarWorld's layoffs, the industry has lost employment from
8 2012 to 2017.

9 As a reminder, the harm was nationwide. And
10 these are all real jobs lost. And for each of these
11 companies, as the Minnesota Senator testified, there are
12 additional upstream and downstream effects as well. And
13 without the manufacturing, you lose the spinoff jobs.
14 That's what you heard earlier today.

15 This is not just a case of innovation and
16 technology destruction. This is real harm. The global
17 import surge captured practically all of increased demand.
18 Imports were a substantial and the substantial cause of
19 serious injury. The domestic industry lost market share, and
20 you have all the other factors as well.

21 The alternative causes do not explain the
22 domestic industry's losses. Grid parity does not explain
23 the sharp decline in prices. The Commission has made all of
24 these causation findings before in Solar One and Solar Two
25 and should do so again here.

1 Again, demand increased sharply over the period.
2 So changes in government incentives cannot explain the
3 industry's poor performance. And prices were decoupled from
4 raw material costs during the period.

5 The Commission must make a separate determination
6 relating to NAFTA countries determining whether they
7 represent a substantial portion of total imports and whether
8 they contributed importantly to serious injury or threat.

9 Mexico was a top five supplier of modules every
10 year since 2012, and producers in both NAFTA countries can
11 quickly and easily shift production to other--from other
12 facilities that they own into Canada and Mexico if they are
13 excluded.

14 Canadian imports are up 86 percent since 2012.
15 Mexican imports are up 77 percent. Both of these are faster
16 than the global rate of increase.

17 With regard to Free Trade Agreement countries,
18 particularly Korea and Singapore, again there is a need for
19 a separate finding on these countries which can be reported
20 to the President, and the President can then decide whether
21 to include these or not.

22 Korea was the third largest source of imports in
23 2016. The public data shows Singapore imports up 400
24 percent, Korean imports up 800 percent during the Period,
25 and the business proprietary data is even greater.

1 value-based company that makes great solar products, creates
2 American jobs and advances American innovation. We believe
3 in our products, our employees, our customers, intellectual
4 property rights and fair trade. SolarWorld is proud to be a
5 pioneer in this industry, producing products that protect
6 our environment under conditions which are safe for
7 employees and for the planet.

8 Until this month, I was also a member of the
9 management board of our corporate parent, SolarWorld AG, one
10 of the world's oldest producers of solar products. I
11 appreciate the opportunity to appear before you today to
12 discuss the dangerous situation in our industry. Quite
13 simply, we need the Commission's help to save solar
14 manufacturing in the United States.

15 This isn't the first time SolarWorld has come
16 before the Commission. Since 2012, SolarWorld has twice
17 sought relief from dumped and subsidized imports from China
18 and Taiwan. Both times the Commission made an affirmative
19 determination and we greatly appreciate the hard work of the
20 Commission and its staff on these cases. Both times we
21 expected the relief to give us the breathing space we needed
22 to respond to unfair import competition. In fact, they did
23 have a positive impact and helped us to survive to today.

24 But here we are again. Rather than the
25 long-lasting and meaningful relief we expected, global

1 exports continued to increase. So, what happened? The
2 answer is, in brief, the continued build-up of global
3 overcapacity, combined with Chinese producers' efforts to
4 evade the previous anti-dumping and countervailing duty
5 orders. This has resulted in an overwhelming surge of
6 global imports into the United States, and with it, the
7 collapse in prices. As a result, the domestic solar
8 manufacturing industry has been driven to the brink. Relief
9 under Section 201 is our last hope.

10 This should be boom times for the domestic
11 industry. The United States is installing solar energy at
12 an impressive and even breathtaking rate. Between 2012 and
13 2016, solar installations in the United States increased by
14 nearly 350% from 3.4 gigawatt to 14.8 gigawatt. In fact,
15 installation has nearly doubled just from 2015 to '16. Last
16 year, solar facilities were the single largest source of
17 additions to U.S. electrical generating capacity.

18 We are in the midst of a solar green technology
19 revolution. And this is the situation that those of us in
20 the solar industry dreamed about for years. SolarWorld
21 Americas had prepared carefully for this explosion in
22 demand, spending in total more than one billion dollars to
23 establish and regularly expand and upgrade our production
24 facilities, and we were posed to take advantage of the
25 growth in the U.S. market.

1 Two of the Commissioners and several of the
2 staff have had the opportunity to tour our facilities in
3 Hillsboro, Oregon, and have seen these investments in
4 action. Among other steps, we added a new 72-cell module
5 production line, set up an extensive installer program and
6 invested in cutting-edge mono-crystalline capability. To
7 assure consumers that solar power is an intelligent,
8 sustainable and safe investment, we were the first company
9 in the industry to offer a 25-year, and then a 30-year
10 warranty on our products.

11 We have done everything possible to establish
12 ourselves as the industry leader in the United States. As a
13 member of SolarWorld Americas board, I helped drive this
14 positive development for years. And when I was offered the
15 opportunity to become the CEO and President of SolarWorld
16 Americas, I didn't hesitate to accept the position and move
17 my family from Germany to Oregon earlier this year.

18 Of course, imports have been present in the U.S.
19 market for years. SolarWorld and the rest of the American
20 industry were fully prepared to compete with fairly traded
21 imports, as well as other domestic sources. But we could
22 have never prepared ourselves for the surge of cheap imports
23 that have resulted from global overcapacity.

24 Since 2012, global manufacturing capacity for
25 cells and modules has almost doubled. This expansion was

1 far beyond the increase in global demand. While some of
2 this new capacity is the result of market forces, much of it
3 represents investment both in China and in other countries
4 by Chinese producers which are heavily subsidized by the
5 Chinese government. The purpose of these investments was
6 not to respond to new local demand, but to add production in
7 other countries to avoid paying the duties on Chinese
8 imports in the United States, as well as minimum prices in
9 Europe.

10 While many investments were made to expand cell
11 and module capacity in Vietnam, Thailand, Malaysia, Korea
12 and Singapore, by some of the world's largest solar
13 producers, none were made in the United States. As you've
14 seen in many other industries, whenever there is a global
15 overcapacity, the United States becomes the market of first
16 and last resort. The same is true with solar products.

17 Between 2012 and 2016, while U.S. installations
18 increased by 350%, imports by quantity great by 500%.
19 Countries that have shipped almost no products to the United
20 States in the past, became major suppliers virtually
21 overnight. As a result, the domestic industry, despite
22 modest increases in production, did not benefit from growing
23 U.S. demand and saw its market share fall sharply.

24 Global overcapacity and the surge in U.S.
25 imports led to a total collapse in U.S. solar prices,

1 particularly starting in the middle of last year. Because
2 of the extreme overcapacity, global prices became totally
3 decoupled from raw material costs, as producers tried
4 desperately to keep all their new capacities in production.
5 Solar cell and module prices fell in 2016, even as the
6 price of polysilicon, the most valuable raw material within
7 a cell, were rising.

8 This is an unsustainable situation and what I
9 would call the circle of death. Prices fall and then
10 companies must fill their capacity and even expand to lower
11 their cost of production. And this additional production
12 must then be sold at an increasingly lower price to compete,
13 resulting in staggering losses.

14 The impact of the American solar industry has
15 been severe. I don't have time to read the list of nearly
16 thirty American solar producers who have gone out of
17 business. At a time when demand for our product is booming,
18 there's exactly one currently active producer of both solar
19 cells and modules left in the United States, SolarWorld. We
20 are one supplier with a capacity of 2% to 3% of the U.S.
21 demand.

22 And even we are operating well below our
23 capacity. We have had to lay off hundreds of employees
24 since mid-last year, including 360 workers just last month.
25 This has been by far the hardest thing that I have had to do

1 as SolarWorld's CEO. We had to let go many workers who had
2 been with the company for many years. These job losses
3 should not be happening in an industry where demand is so
4 strong and good profit margins are a given in the overall
5 value chain.

6 Of course, SolarWorld's current financial
7 situation is distressing. I should note that the damage
8 isn't limited to the United States. Our corporate parents,
9 SolarWorld AG, filed for bankruptcy in May, 2017.
10 Unfortunately, even one of the oldest and most respected
11 solar producers in the world can't compete with the Chinese
12 government and the global race to the bottom.

13 The United States is the second largest market
14 for solar products in the world. We are already seeing the
15 enormous benefits solar power can bring in terms of
16 environmental protection and energy independence. The
17 American solar industry is technologically advanced with the
18 most productive workers in the world, yet because of the
19 over-expansion of global capacity, and with that, the surge
20 of imports, our industry has been pushed to the brink.

21 Unless you act promptly and decisively, the
22 United States may find itself with no solar manufacturing
23 sector left at all. I am sure that our industry survival is
24 key to U.S. competitiveness in high technology industries.

25 The sun is the cheapest source of energy. It's

1 for free. And it is expected to shine for the next 100
2 million years. The United States led the solar revolution.
3 By allowing our manufacturing sector to disappear, we are
4 giving away our knowledge on how to use this source and our
5 technology to other countries. The next generations of
6 renewable energy products should not just be installed here
7 in the United States. They should be invented and made here
8 as well. Thank you.

9 STATEMENT OF MATT CARD

10 MR. CARD: Good morning. My name is Matt Card
11 and I'm the Executive Vice President of Commercial
12 Operations for Suniva, the Georgia and Michigan-based
13 manufacturer of solar cells and modules and one of the two
14 co-petitioners in this investigation. I'm one of Suniva's
15 first twenty employees and have been with the company nine
16 years this month.

17 Over the last nine years, I've been responsible
18 for the sales, marketing and government affairs functions of
19 the company. I appear before the Commission today to
20 provide insight into the dramatic challenges that U.S. solar
21 manufacturers have faced as our domestic industry has come
22 under intense assault from imports over the last several
23 years. Today's solar technology traces its roots to
24 research and development that originated in the United
25 States.

1 The U.S. blazed the path forward for this
2 important generation of energy technology, and yet, as we
3 sit here today, the U.S. manufacturing industry is in a
4 fight for our very existence. The irony of these
5 proceedings is not lost on me. In October, 1955, the first
6 successful trial of a solar panel developed and made by Bell
7 Laboratories in the United States, was conducted in
8 Georgia. And now, sixty-two years later, a Georgia
9 manufacturer asks for your help in saving a beleaguered U.S.
10 industry.

11 It's not an understatement to say that the
12 actions of this Commission will determine whether or not the
13 U.S. solar manufacturing industry becomes extinct. Another
14 victim of an intentional strategy by foreign entities to rob
15 the United States of its manufacturing expertise, and with
16 it, the important research and development work that has for
17 so long made the United States the world's leader in
18 emerging technologies. What you see here by the
19 co-petitioners represents effectively 90%+ of the remaining
20 U.S. solar manufacturing industry. We speak with a unified
21 voice about the grave damage that has befallen and continues
22 to befall U.S. manufacturers.

23 Of the group that you will hear from the
24 petitioners today, you'll hear from Suniva. Suniva's
25 currently in Chapter 11 bankruptcy and has had to lay off

1 the majority of our workforce. SolarWorld's parent has
2 filed for insolvency and the company now stands alone in the
3 U.S. and have had to lay off roughly 40% of its U.S. staff.

4 Beam Reach, who you'll also hear from, filed
5 bankruptcy in late 2016 and is currently under liquidation.
6 Itek Energy, who still survives, will share with you the
7 intense pressure and damage being caused to its business by
8 imports.

9 Sadly though, the stories of these companies
10 mirrors the stories of over thirty U.S. solar module, cell
11 and materials manufacturers over the last five years. Over
12 thirty companies that represent well over a billion dollars
13 of capital investment and thousands of jobs, all now gone
14 from the U.S. manufacturing landscape.

15 We all believe it is vital to American interests
16 that this manufacturing industry survives. If, as a
17 country, we lose this industry, then we lose much more than
18 the jobs associated with manufacturing. We also lose the
19 R&D leadership that allowed this technology to be birthed in
20 the first place. As a country, we will have ceded
21 manufacturing of what everyone agrees that's a meaningful
22 source of electrical generation to China and its proxies in
23 Southeast Asia and other global outposts.

24 The implications of this are significant. As we
25 continue to stress the needs of energy independence as a

1 country, the U.S. in fact will have no control over its own
2 destiny when it comes to power generation from the sun. How
3 much or how little solar energy the United States produces
4 and at what price will be completely in the hands of foreign
5 governments.

6 Over the course of its ten-year life, Suniva's
7 been a true American success story and sadly now a
8 cautionary tale, which has become the norm in U.S. solar
9 manufacturing. Suniva was founded in 2007 as a result of
10 private investment, license and technology first developed
11 at one of the country's leading photovoltaic research
12 universities, the Georgia Institute of Technology, Georgia
13 Tech.

14 However, today, global overcapacity continues to
15 grow and with more and more product being pushed into the
16 United States at lower and lower prices. Indeed, price has
17 now become the dominant driver of purchasing decisions. No
18 matter what else you hear today, price has become the
19 dominant driver. At wildly distorted prices that have
20 distorted the U.S. market due to massive and growing global
21 overcapacity.

22 It's important to note, even those that oppose
23 this action, acknowledge this point. For example, in a June
24 30th, 2017, New York Times article, SEIA, the installers and
25 developers trade association, who you will hear from quite a

1 bit today, stated, "We are competing on price and price
2 alone. If you change the underpinnings of that, it
3 undermines what we're doing." Well, price competitiveness
4 is certainly an element of a free and fair market.

5 The intentional continued growing of oversupply
6 is a clear indicator of the market distortion that results.
7 Credit Suisse has noted that in 2017, the global demand for
8 these products is between 63 and 72 gigawatts, while global
9 manufacturing capacity exceeds 100 gigawatts. That's the
10 conservative estimate. Other estimates, as you saw earlier
11 today in our openings, put this number above 140 gigawatts.

12 30% to 100% more supply than demand. 30% to
13 100% more supply than demand. And under this backdrop of
14 capacity, amazingly, it's been reported by Reuters that this
15 year, China will increase by 25% its manufacturing capacity
16 to 60 gigawatts, almost equaling alone the world's demand.
17 And that's not all, it's not just China. PV Tech has
18 reported that Q1 2017 was the third highest quarter for
19 global capacity expansion since 2014. 30% to 100% over
20 capacity and yet we have the third fastest growth of
21 expansion around the world.

22 In 2016, within the United States, this
23 overcapacity and the related price collapse, resulted in a
24 clear distortion of the U.S. market. Module prices in the
25 United States fell an astonishing 33% in the second half of

1 the year, even as the prices of the dominant raw material,
2 silicon, rose almost 20%. The culmination of the distortion
3 that occurred, resulted from this overwhelming influx of
4 oversupplied imports, was inevitable. It became
5 economically impossible for a U.S. manufacturing counting on
6 rational market behavior, to compete.

7 In late 2016, the manufacturing bloodbath
8 continued in the United States and grew even significantly.
9 Bankruptcies and mass layoffs continued and in April 2017,
10 Suniva's succumbed to the relentless onslaught of these
11 imports. We filed for Chapter 11 bankruptcy. Our
12 co-petitioners' parents followed several weeks later. As a
13 company, when we reached this dark day, it was not for a
14 lack of trying to overcome a heavily tilted playing field.

15 Over the previous five years, we invested
16 heavily to grow our capacity and lower our operating costs
17 as an attempt to compete. Over the course of our life,
18 we've raised over \$200 billion in private investment and
19 grew our cell manufacturing operations in our birthplace,
20 Norcross, Georgia.

21 In 2014, we expanded our operations to include a
22 new module manufacturing facility in Saginaw Township,
23 Michigan, bringing hundreds of new, fulltime, well-paying,
24 benefited jobs to a community with a rich history in
25 manufacturing. In 2015, we made the strategic decision to

1 expand our cell manufacturing operations in Georgia again to
2 lower operating costs and to provide more products to serve
3 our primary markets here in the United States.

4 As part of this effort, we also looked to expand
5 our investment team, reaching out to investors globally to
6 invest in the growth of U.S. manufacturing. We secured
7 additional investment from SFC International Clean Energy,
8 who joined our primary U.S.-based investors, New Enterprise
9 Associates, Goldman Sachs and Warburg Pincus. The U.S. is,
10 and will continue to be, a vital market for global solar,
11 and we have always believed that the global industry should
12 be investing in the United States manufacturing worker as a
13 key part of a healthy ecosystem, rather than doing nothing
14 more than siphoning revenue off the U.S. installation growth
15 while destroying our manufacturing base.

16 Adding additional investors allowed us to begin
17 an expansion early 2016, late 2015, that would triple our
18 U.S. cell capacity to 450 megawatts, again to serve our home
19 market. This was projected to add hundreds of new research,
20 engineering and manufacturing jobs in our Georgia community.
21 Beyond our efforts to grow and invest, we also attempted to
22 be smart about the markets we prioritized. Customers would
23 pay a premium for our products, and they bought repeatedly.

24 Our major distribution partners, including two
25 of the largest electrical distributors in the world, placed

1 literally thousands of purchase orders for our products.
2 Our commercial partners bought substantial quantities of our
3 72-cell product over multiple contracts for periods of over
4 five-plus years. 45% of our overall cell manufacturing
5 capacity went into 72-cell modules to serve the growing
6 commercial and even small utility market.

7 It was never a question of being able to find
8 willing buyers. An overwhelming percentage of our customers
9 signed multiple purchase contracts over multiple years,
10 validating their support for our product. But the comments
11 that SEIA made about price in the June 30th New York Times
12 article were deadly accurate. It became all about price,
13 period. Being inundated with offers from Asian suppliers at
14 prices that on more than one occasion would drop 5% in a
15 week. Customers attempted to renegotiate or cancel signed
16 supply contracts.

17 A frequently-used technique of these
18 competitors, the 'Last Look.' Buyers were told to call them
19 after they got Suniva's best and final offer, and these
20 suppliers would beat it, no matter what. It became an
21 insane race to the bottom. Prices reached such irrational
22 lows that it was literally more cost-effective to not
23 produce at all, rather than figuratively tape dollar bills
24 to each module that goes out the door.

25 Buyers were still offering us projects the weeks

1 before and after our bankruptcy with the caveat, as long as
2 we could be within range of the price offers they got for
3 Southeast Asian products. But of all the tremendous
4 successes and challenges we faced, both victories and
5 losses, it's not the projects that mean the most to me, it's
6 the people. We take tremendous pride in our people and how
7 we can contribute through them to the communities that they
8 live and work in full-time.

9 About 20% to 25% of our workforce were veterans,
10 men and women that learned valuable technical skills in our
11 military and wanted to continue building on those skills
12 when they left the service. Another 25% to 30% of our
13 workforce came from other manufacturing segments as they
14 downsized. When other manufacturers closed or scaled back,
15 we were thrilled to provide full-time high-tech
16 manufacturing work so that these workers could continue
17 developing their careers.

18 I recall when literally hundreds of people
19 showed up to apply for manufacturing jobs at our
20 still-under-construction factory in Michigan, months before
21 it opened, because they were thrilled to see full-time
22 manufacturing growth, after years of debilitating
23 manufacturing job losses in that region. These were the
24 victories that made all the challenges most worthwhile.

25 And even this year, as the toll of the drum-beat

1 of global overcapacity continued to depress prices beyond
2 rational levels, and it became growingly obvious that Suniva
3 could not sustain in these conditions, the words of
4 encouragement I received from the very workers we were
5 forced to lay off were huge sources of strength.

6 Rather than dwell on loss, these same workers
7 time and again told me, "Please fight for our jobs. Make
8 people understand, making things in America matters. We
9 want to come back." As an American manufacturer, we always
10 took pride in being the best at what we did. In innovating,
11 our founder was one of the top five research scientists on
12 the planet. He held over forty individual patents. As a
13 company, we developed a patent portfolio of over 150
14 patents.

15 In building a quality product, our history
16 warranty claim rate was below 0.05%, 5/100ths of 1% of
17 warranty claims in a quality issue. We believe that in a
18 rational market, that these values would allow us to
19 compete. But our story was not unique, nor was our fate.

20 Over the last five years, almost thirty other
21 U.S. cell module and materials manufacturers aspired to the
22 same vision and sadly, thousands of U.S. manufacturer
23 workers found out that this market is distorted, and lost
24 their jobs. It's been tilted by foreign entities and
25 governments that have invested over \$40 billion to create a

1 subsidized, overcapacitized and still growing manufacturing
2 base that's continually distorted this market here at home.

3 This process is not fun for me. There is
4 nothing enjoyable about engaging in this. People have
5 accused this of being an action of first resort. This is an
6 action of last resort. I would much rather be working with
7 Suniva's sales force actively pursuing new business. I
8 would much rather be discussing the next phase of our
9 expansion plan to grow manufacturing and create more jobs in
10 Georgia and in Michigan.

11 I'm not a lawyer. I'm not a politician. I'm
12 not a banker. I'm a business professional. My instinct is
13 to build, to grow, to create. With that said, I'm reminded
14 daily that this is a discussion that matters. This is not,
15 as some would have you believe, an isolated example of an
16 incompetent, failed company out to bring down an industry.
17 We feel our families in this space, too. We need installers
18 and developers to build. But we still fail. No one wants
19 that.

20 But the notion that the U.S. should abandon
21 manufacturing is absolutely misguided. A healthy U.S.
22 ecosystem must include cell and module manufacturing. And
23 today we are nearly extinct. Thirty manufacturers.
24 Thousands and thousands of U.S. workers. This is not
25 hypothetical. This is not a wild-eyed projection as a scare

1 tactic of what might happen. This is fact. Over thirty
2 companies in twenty-two states in five years. Thousands of
3 U.S. manufacturing workers. Over a billion and a half
4 dollars of capital investment. All gone.

5 Our co-petitioner walks this road with us now.
6 The others testifying today have walked this road, or see it
7 coming. We're all that's left. We're not the only two.
8 We're the last two. And we are in grave danger of
9 extinction. Clearly an issue in front of you guys as a
10 Commission is historic. And it will shape the face of U.S.
11 manufacturing and also our nation's energy security for
12 years to come.

13 You have an opportunity to make a real
14 difference in the face of American manufacturing, and I ask
15 that you find for the injury caused by imports that has
16 decimated American manufacturing jobs in this industry. I
17 thank you very much for the seriousness with which you're
18 pursuing this investigation.

19 STATEMENT OF SHANE MESSER

20 MR. MESSER: Good morning. I am Shane, Vice
21 President of Sales and Marketing of Solar World Americas,
22 Inc. I have served in this capacity since 2016, but have
23 worked in the solar industry for more than decade now.

24 Given my background, I will focus my comments on
25 Solar World's commitment to producing the highest quality

1 products at the most competitive prices and its record of
2 high customer satisfaction. I will also discuss how imports
3 and not any other alleged alternative causes are responsible
4 for the harm to our industry over the past five years.

5 Solar World is widely recognized as America's
6 solar leader. While other companies build overseas, Solar
7 World carries out the manufacturing process right here at
8 home from sourcing and manufacturing to assembling and
9 hiring. We source only the highest quality components and
10 materials from reputable and proven suppliers. Because of
11 this commitment to excellence our solar panels and our
12 operations consistently meet or exceed the most stringent
13 performance and environmental standards.

14 Solar World was one of only several global solar
15 producers to be recently named a top performer in the DNV
16 GL's 2017 PV modular reliability scorecard report. This
17 recognition by the world's largest classification society is
18 only given to solar producers with the highest PV modular
19 quality and long-term reliability.

20 Our warranty rate is so low as to be negligible.
21 Last year, for example, we shipped nearly three million
22 modules. Of those modules, merely .01 percent were
23 rejected. In fact, at no point in the last five years has
24 Solar World's rejection rate exceeded .01 percent. Just for
25 comparison sake, many Chinese companies carry warranty

1 reserves on 1 percent of all sales. It takes gall, to
2 say the least, for anyone to claim that Solar World produces
3 a poor product.

4 Similarly, there is no merit to a claim that
5 Solar World has poor customer services or marketing. In
6 fact, this is one of our strengths. Solar World works with
7 nearly 5,000 U.S. solar installers across the country. Of
8 those 349 are authorized installers and 36 have been
9 designated as platinum installers. These installers work
10 with Solar World because we are committed to excellence in
11 everything that we do from product quality to customer
12 service to prices.

13 Because of this commitment, Solar World's list of
14 awards and accolades is extensive. In June 2016, a
15 comprehensive survey by independent research firm, EUPD
16 Research, found that more U.S. solar system installers
17 choose to carry Solar World's solar panels than those of any
18 other brand. Solar World has earned an A+ rating from the
19 Better Business Bureau, its top ranking, which demonstrates
20 that Solar World's customer service department in Oregon is
21 second to none.

22 How can anyone reasonably claim that Solar World
23 has suffered severe financial losses and layoffs because of
24 poor customer service or quality? Clearly this is not the
25 case. Before I joined Solar World in 2016, I worked at Sun

1 Power and then Bosch until they ceased their solar
2 operations due to unfairly traded imports. I then joined
3 Sun Edison. I tell you this for two reasons. First, I've
4 seen firsthand how quickly imports can come in and destroy
5 U.S. market share companies and jobs. Second, I wouldn't
6 have joined Solar World if it provided substandard
7 merchandise and service. The opposite is actually true. I
8 came to Solar World because I knew it was the best.

9 Our competitors have also falsely claimed that
10 the domestic industry is unable to supply the 72 cell to the utility
11 sector. The Commission has rejected these claims in the
12 past and should do so again. Solar World produces 72 cell
13 modules and would be producing even more if not for surging
14 solar cell and module imports. In fact, Solar World added a
15 brand new 72 cell line in 2016 in order to serve growing
16 demand in the utility sector.

17 However, this line, like many of Solar World's
18 other investment, never got a chance to succeed. Our
19 investment was immediately undercut when imports rapidly
20 accelerated into the U.S. market last year. Similarly,
21 Solar World's focus on mono-crystalline products is not a
22 cause of its harm.

23 As the Commission found in the last solar
24 investigation, purchasers often do not specify mono versus
25 multi-products in their RFP. The Commission, therefore

1 rightly found that the record does not show that the
2 domestic industry's product mix explains its poor
3 performance. In fact, we see the market now moving strongly
4 to mono and PERC products. Solar World led and now Asian
5 manufacturers are following our technology roadmap.

6 The substantial cause of the dramatic decline in
7 the domestic industry's condition is direct and undeniable
8 - imports. Since 2012, the domestic industry has suffered
9 serious industry due to a surge of solar imports in the U.S.
10 market, including massive layoffs, closures and severe
11 production cutbacks. The domestic industry's condition,
12 however, worsened as imports spiked into the U.S. market in
13 2016. And it is not only the domestic producers that are
14 hurting. The entire U.S. supply chain is being harmed.

15 Just last week, Solar World's component
16 supplier, Ulbrich Solar Technologies Oregon shut its
17 Hillsboro plant after six years of operation, laying off 35
18 employees. I could give you many other examples of how our
19 supply chain has been hollowed out by imports further
20 harming U.S. manufacturing. Solar World has experienced
21 hard times recently and faces an urgent and dire situation
22 without trade relief. I've seen hundreds of my colleagues
23 laid off and it pains me to think that many more could be
24 let go if market conditions persist.

25 Solar World is one of the most competitive solar

1 producers in the world and for this reason many of our loyal
2 customers have stuck by us. We can compete among the best,
3 but not against surging volumes of low priced imports. On
4 behalf of Solar World and our employees, we urge you to make
5 an affirmative finding. Thank you.

6 STATEMENT OF EDWARD HARNER

7 MR. HARNER: Good morning and thank you for the
8 opportunity to appear here today. I'm Edward Harner, Chief
9 Operating Officer of Green Solar Technologies, a leader in
10 the U.S. solar installation industry. Green Solar has been
11 installing the highest quality American-made solar panels
12 for our highly valued customers for many years. We are
13 pioneers in our field and have cultivated longstanding
14 relationships with a number of U.S. solar module producers
15 to provide our customers with the best products at the most
16 competitive prices.

17 Although based in California, we sell or operate
18 in 19 states and growing and have worked on projects
19 throughout the U.S. from Los Angeles, California to Raleigh,
20 North Carolina. Green Solar and its roughly 120 employees
21 take pride in being the best in the business. In fact,
22 earlier this year we were named the platinum installer by
23 Solar World for our superior installation quality, business
24 operations, and customer service.

25 At Green Solar, we believe in American-made

1 solar energy products. Since opening our doors, Green
2 Solar's preference has been to install U.S. produced solar
3 modules on our residential and commercial projects.
4 Unfortunately, this choice is no longer ours if we want to
5 stay competitive. Because of the rapid rise in global cell
6 and modular imports and their crushing impact on U.S. solar
7 producers, we have had no choice but to supply increasing
8 amounts of foreign-made panels.

9 In the past five years, we have seen solar
10 system prices artificially drop 50 percent in all U.S.
11 markets. As low priced imports continue to enter the U.S.
12 in increasing volumes, it has become progressively harder to
13 find markets not overrun by solar cell and modular
14 distributors and installers whose business models are based
15 on foreign imports.

16 All too often, these companies do not even
17 identify the specific module manufacturer. Instead, they
18 wait to get the lowest possible price on the date of
19 installation. While these and other installers have
20 business models that depend on the use of low-priced
21 imports, others are gradually turning to imports out of
22 necessity. For instance, Green Solar has a network of
23 trusted installers that we work with to provide our
24 customers with the best products and services possible;
25 however, many of them are now resorting to imports to stay

1 competitive.

2 As the Commission is aware from its prior
3 investigations, solar cells and modules are overwhelmingly
4 purchased on the basis of price. This means that if Sun Run
5 and Solar City are offering solar modules from countries
6 like China, Malaysia and elsewhere at bargain basement
7 prices, they will get the business almost every time. We
8 compete with these companies every single day and try to
9 respond to the constant and increasing price pressures;
10 however, as import volumes are rising and import prices are
11 falling, it is becoming much more difficult to do so.

12 Modules produced by Trina, Hanwha, C-Sun, Yingli,
13 and other foreign producers are being used on solar projects
14 across the U.S. with increasing frequency. While it is
15 undeniable that Chinese, Taiwanese, Vietnam, and Malaysian
16 exports to the U.S. market have skyrocketed in the past five
17 years, they're not the only problem. Other countries are
18 also contributing to the solar import crisis. As one
19 example, we are seeing growing volumes of solar modules from
20 Korea, which is not surprising, given that these modules are
21 being offered in the U.S. market for significantly less
22 than their U.S. produced counterparts.

23 Put simply, absent much needed trade relief,
24 these imports trends will only worsen. On behalf of myself,
25 my family, and Green Solar's employees, I would like to

1 thank the Commission for its time. Without relief, I am
2 concerned that foreign producers will complete their goal of
3 eliminating U.S. competition and we will be forced to
4 abandon U.S. solar modules altogether to stay in business.

5 We respectfully ask the Commission to help us
6 prevent this from happening. Thank you for time and
7 attention.

8 STATEMENT OF STEVEN SHEA

9 MR. SHEA: Good morning. My name is Steven
10 Shea. Until recently, I was vice president at Beamreach
11 Solar, a U.S. producers of crystalline silicon photovoltaic
12 cells and modules located in California. Beamreach Solar
13 did not file a response to the ITC's domestic producer
14 questionnaire in this investigation because in February of
15 this year Beachreach was forced into Chapter 7 bankruptcy,
16 in large part, because the surge in low-cost imports.
17 Consequently, I am not here as a representative of Beamreach
18 itself, but as an industry veteran with personal insight
19 into the Beamreach situation.

20 Prior to working at Beamreach, I held a variety
21 of positions in the CSPV solar cell and module industry for
22 over 40 years, including positions with Solar X, BP Solar,
23 and Suniva, and involving manufacturing on five continents,
24 so I'm very well acquainted with the dynamics of the CSPV
25 industry.

1 I joined Beamreach Solar in June of 2016 as Vice
2 President of Manufacturing and Engineering and I held that
3 position, which later expanded to cover all of Beamreach
4 operations as well, until I was let go in late January as
5 part of the bankruptcy. At that time, Beachreach was
6 focused on scaling the company's manufacturing capabilities
7 to meet growing demand for the company's new, lightweight
8 sprint solar systems and to support the launch and
9 commercialization of other company products in the future,
10 including the development of an advanced, cost-effective,
11 high efficiency solar cell to be synchronized with the
12 second generation of the sprint product for introduction in
13 2018.

14 Beamreach itself was formed in 2005 as Soltaics
15 with a goal of developing solar products that could break
16 various technological and cost barriers then hindering the
17 growth of the clean industry market as a whole -- clean
18 energy market. In 2007, the company changed its name to
19 Solexel and continued to develop and manufacture innovative
20 PV products, including thin silicon wafer panels, next
21 generation back contact cell technology, including high
22 voltage, high efficiency cells and solar panel technologies
23 and manufacturing processes, including what we called
24 "Smart Onboard Module Electronics" for control of these
25 devices.

1 The company developed a very strong, worldwide
2 portfolio of more than 245 patent assets protecting these
3 products and innovations. In 2016, the company rebranded
4 itself as Beam Reach Solar and introduced Sprint, a highly
5 innovative, high weight, fast-to-install integrated solar
6 panel and racking system for low-slope rooftops primarily
7 used for commercial and industrial installations.

8 In its first six months after introduction, the
9 company signed master supply agreements for substantial
10 amounts of this product over multiple years going forward.
11 At the time of the bankruptcy, in February of this year,
12 Beam Reach had a 7800 square foot facility in Milpitas,
13 California, employing nearly a hundred workers in early 2016
14 and actively planning for expansion on this site before the
15 impact of rapidly falling import prices began to be felt
16 more urgently. However, of the year as prices continued to
17 fall, Beam Reach reduced staff in order to conserve cash,
18 but ultimately was forced into Chapter 7.

19 In short, Beamreach was an innovative American
20 company with strategic ideas, forward thinking aspirations,
21 strong IP portfolio and yet it is gone, as are all of its
22 manufacturing jobs and the potential jobs for the future
23 with it. Beam Reach, as it went to market with the new
24 Sprint product could not keep pace with the rapid reduction
25 in market prices driven by imports, first, from China, then

1 from countries like Taiwan, Vietnam, Malaysia, Korea, and
2 others and the resulting glut of product quickly destroyed
3 the profit margins on this product.

4 A second generation of the product was through
5 the design phase, but the company ran out of cash before the
6 update could be qualified and fully deployed. In short,
7 Beam Reach was well established company with a truly
8 differentiated and well designed product, strong patent
9 portfolio; however, this flood of imports and the resulting
10 price collapse starting in 2016 eroded Beam Reach's
11 competitiveness in a matter of merely months.

12 I've spent most of my adult life developing
13 solar technology and building solar manufacturing facilities
14 that have created jobs throughout the world. All the jobs I
15 helped create in the U.S. over the past 40 years are now
16 gone. I'm an expert on manufacturing costs for these
17 products and I'm convinced that on a level or even a nearly
18 level playing field U.S. manufacturing in crystalline
19 photovoltaic can be competitive with products made anywhere
20 else in the world.

21 Unfortunately, I'm also convinced that without
22 relief, the few remaining U.S. producers will go the way of
23 Beam Reach and those jobs and potential future growth of
24 manufacturing in this industry in this country will simply
25 disappear. Thank you for your time.

1 STATEMENT OF DAVID MCCARTY

2 MR. MCCARTY: Good morning. I'm Dave McCarty,
3 COO of Itek Energy, LLC, a U.S. manufacturer of CSPV
4 modules. While Itek Energy is not a formal Petitioner in
5 this 201 action, I wish to state publicly that Itek Energy
6 fully supports this 201 action.

7 As I will discuss in more detail later, Itek
8 Energy has suffered and continues to suffer economic injury
9 due to imports of CSPV modules and without relief from those
10 imports our position as a manufacture of U.S. made solar
11 modules is threatened.

12 Some background on me, I started working on a
13 manufacturing line straight out of the U.S. Navy 27 years
14 ago. Since then, I've held a variety of positions in the
15 U.S. manufacturing industry, so I'm well acquainted with the
16 dynamics of the U.S. marketplace and challenges faced by
17 high tech U.S. manufacturers.

18 During the course of my career, I've seen
19 negative impacts that low-cost imports can have on U.S.
20 manufacturing. I also know that U.S. high tech
21 manufacturing can compete with imports given a level playing
22 field.

23 Our goal and indeed our vision at Itek Energy is
24 to develop a robust, renewable energy manufacturing base in
25 the United States, while providing living wage jobs and

1 leaving the world with renewable energy manufacturing. We
2 were founded in the U.S. We are U.S. funded and owned and
3 we manufacture in the United States. Are model is lean,
4 nimble facilities strategically placed to service regional
5 markets.

6 We know that with a highly trained staff,
7 industry-leading equipment, and well placed facilities, we
8 can and will compete, head-to-head, with imports if import
9 levels are rational. Our flagship module manufacturing
10 facility is located less than 90 minutes north of Seattle in
11 Bellingham, Washington where we pride ourselves on providing
12 the world with high quality, assembled America solar
13 modules.

14 We conduct a rigorous quality control process,
15 including stringent material assessment, reoccurring
16 electro-luminous and imaging of each module and 100 percent
17 visual inspection at every stage of production to ensure top
18 quality end product ready for deployment. All of our
19 modules are completely assembled in our Bellingham or
20 Minneapolis based facilities and we source
21 domestically-produced components whenever possible.

22 Unfortunately, the reduction of U.S. PV
23 manufacturing in the past couple of years has also severely
24 impacted our domestic supply chain. We are losing U.S.
25 jobs, not only in PV module manufacturing, but in all the

1 high tech industries that support the U.S. solar industry.
2 With only a few U.S. PV manufacturers still operating the
3 incapsulate suppliers, the solar glass suppliers, backsheet
4 suppliers, and cell suppliers are also ceasing operations,
5 making it impossible for Itek to source U.S. made
6 materials. This chain reaction reduces our access to
7 domestic technology and materials, ultimately reduces our
8 long-range ability to compete with imports.

9 Itek started module production just about five
10 years ago because we firmly believe that the demand for
11 solar power in this country will continue to grow and we
12 still believe this is true. We are committed to producing
13 our products in the United States and there's absolutely no
14 reason we cannot efficiently and reasonably produce
15 excellent quality CSPV product here in the United States.
16 However, in just a few years, we started production and
17 marketplace dynamic here in the U.S. began to change.

18 Specifically, what has previously been
19 manageable competition from imports became a flood, which
20 quickly created artificially low pricing levels that are
21 wholly unsustainable. Indeed, starting in the second
22 quarter of 2016, due to import prices for modules in the
23 United States plummeted. We had to cut prices drastically in
24 response. As an innovative company positioned on the front
25 lines to make U.S. manufacturing successful on the global

1 stage, we at Itek embrace fair competition. Indeed, growth
2 in the industry requires continuous improvement in our
3 production facilities, technologies, and practices. And at
4 Itek Energy, we are second to none against any company
5 anywhere in the world.

6 In fact, in 2017, we expanded our current
7 manufacturing facilities to roughly 200 megawatts. This
8 increased capacity is important to improve efficiencies and
9 to cut costs, but the oversupply of modules globally and
10 resulting influx into the United States has caused prices to
11 plummet. We are committed to providing high quality U.S.
12 jobs. We continue to invest in staff training and R&D with
13 the goal of leading the industry with high efficiency
14 modules.

15 So what has been the impact of imports on our
16 company? Our production output dropped dramatically in 2016
17 compared to 2015. Our commercial shipments also dropped
18 dramatically in 2016 compared to 2015. Our sales value in
19 2016 was almost half that of 2015 and our profit was
20 two-thirds less for the same period. Because of the strain
21 on our supply chain, we are no longer able to source enough
22 of our components domestically to be able to claim that our
23 product is made in America.

24 It has been very, very difficult to expand
25 outside of our foundational Washington and Minnesota markets

1 because the price of imported modules are artificially low
2 across the country.

3 In sum, Itek Energy voluntarily appears here
4 today to represent the interest of U.S. manufacturers
5 seeking a rational market. This will benefit not only our
6 workers, but the workers in the entire raw material supply
7 chain. Without relief, the harsh reality is that the few
8 remaining companies in the U.S. solar industry will simply
9 disappear and with us, our nation's opportunity to compete
10 in this essential area. Thank you.

11 STATEMENT OF ANDREW SZAMOSSZEGI

12 MR. SZAMOSSZEGI: Good afternoon. My name is
13 Andrew Szamosszegi. I'm a principal with Capital Trade.
14 I'll discuss serious injury and threat. Dr. Seth Kaplan will
15 cover causation.

16 The domestic market for CSPV cells and modules
17 has grown rapidly. Every year saw increasing in record
18 installations. From 2012 to 2015, demand increased by an
19 average of 1.4 gigawatts annually. In 2016, it increased by
20 more than 7 gigawatts.

21 Slide 4 contains the statutory factors for
22 safeguard investigations. I'll start with imports. Imports
23 of CSPV modules rose in absolute terms in both the value and
24 volume basis, as you can see. These numbers are staggering.
25 The volume of imports rose by 492.4 percent over the POI.

1 The value of imports rose by more than 270 percent. The
2 increase in 2015 and 2016 was driven by countries not under
3 order. Imports also increased as a share of domestic
4 production.

5 Slide 7 lists the serious injury factors:
6 significant idling of productive facilities; inability of a
7 significant number of firms to carry out domestic production
8 operations at a reasonable level of profit; and significant
9 unemployment or underemployment.

10 Slide 8 shows the cumulative number of closures
11 that occurred during the POI and through July 2017. You can
12 see that there were many closures due to the unfair trade
13 associated with the two solar anti-dumping cases. Closures
14 picked up in 2016 despite the record increase in demand that
15 you saw earlier.

16 Slide 9 shows that the number of productive
17 facilities declined from 33 in 2012 down to 21 facilities in
18 July of 2017. In all, 28 facilities have closed or are in
19 bankruptcy. In addition to closures, the remaining firms in
20 the domestic industry are suffering from excess capacity.
21 This prevents them from spreading their fixed costs over more
22 products and harms their profitability. These dozens of
23 closures and large excess capacity constitute the
24 significant idling of productive facilities.

25 The second serious injury factor is inability of

1 a significant number of firms to carry out domestic
2 production operations at a reasonable level of profit. The
3 data indicate that domestic producers have generated only
4 losses. The companies' specific data on cells in Table E-2
5 of the confidential staff report show U.S. producers of
6 cells were unable to operate at a reasonable level of
7 profitability during the entire POI.

8 The public data on modules are shown in this
9 slide. Operating income and net income were negative in
10 each year. The data show a significant deterioration in
11 2016. These losses occurred even as domestic production
12 costs experienced significant declines. The industry's
13 operating losses were widespread as shown in Table E-3 of
14 the staff report.

15 Over the POI, there were 49 firm-specific
16 observations for operating income, 38 of them were negative.
17 Four different firms share the dubious distinction of
18 achieving the lowest annual operating income. The median
19 operating margin for domestic module producers was negative
20 in all five years and worse than negative 40 percent in four
21 of those years. It is not an exaggeration to call this
22 financial performance catastrophic. This type of thing is
23 the type of thing that one might see in a single year during
24 the great recession. The fact that it happened when U.S.
25 demand was achieving annual records is remarkable.

1 The next two slides examine unemployment.
2 Incorporating the PRWs from solar two for 2012, the data
3 show that the number of production workers declined from
4 1572 in 2012 to a trough of 963 in 2014. The number of
5 workers increased in both 2015 and '16, but at the end, were
6 below 2012 levels. And you can see that where it followed
7 the same general pattern.

8 So to summarize, all the factors indicative of
9 serious injury are present. Imports have increased
10 absolutely and relative to domestic production. There has
11 been a significant idling of productive facilities. A
12 significant number of producers have been unable to carry
13 out domestic operations profitably, let alone at a
14 reasonable level of profit, and there is significant
15 unemployment and underemployment, especially in view of
16 record demand.

17 The domestic industry also faces the threat of
18 serious injury due to a persistent decline in market share,
19 growing inventories, downward trends in profitability,
20 increasing unemployment, the inability to maintain existing
21 levels of capital expenditures in R&D and the continued
22 attractiveness of the U.S. market as a focal point for the
23 diversion of trade.

24 The market shares are confidential, but as you
25 see from this graph from the prehearing report, the decline

1 in market share has been persistent and frankly that's
2 depressing. Inventories increased in absolute terms in 2015
3 and 2016. Importer inventories of CSPV products increased
4 11.8 percent year-on-year in 2016 and at the outset of 2017
5 were significantly higher than they were in 2014.

6 In fact, importer inventories were 85 percent
7 greater than U.S. module production in 2016. Domestic
8 inventories have also increased in absolute terms and
9 relative to sales. The profitability and employment trends
10 have already been discussed. As you've heard, there have
11 been additional closures and large employment reductions in
12 2017. Company-specific asset trends indicate that domestic
13 producers have been unable to maintain capital expenditures.

14 In 2016, 12 of 18 cell and module operations had
15 lower asset values relative to their peak. For firms with
16 assets above peak, asset values had increased by \$100
17 million. For firms with assets below peak, asset values had
18 declined significantly more, thus, a large majority of firms
19 in the industry are currently not growing.

20 The industry's persistent net losses have also
21 hampered its cell expenditures in R&D, its capital
22 expenditures in R&D. This slide illustrates the cumulative
23 shortfall in net income given the domestic industry's asset
24 values, assuming that the industry had achieved a reasonable
25 rate of return on assets during the POI.

1 The U.S. has been a focal point of global
2 exports in recent years. This slide shows that worldwide
3 installations were relatively flat over the POI when U.S.
4 and Chinese installations are excluded, thus, the U.S.
5 market has been a focus of exports during the POI. And as
6 shown in Suniva's brief, a very large share of the increase
7 in capacity in countries not subject to the orders has been
8 directed at the U.S. market. The speed at which these
9 capacity additions can occur and recently announced
10 expansions in the first quarter of 2017 exacerbate the
11 threat faced by what is left of the domestic industry. For
12 these reasons, the domestic industry is also threatened with
13 serious injury. Thank you very much.

14 STATEMENT OF SETH KAPLAN

15 MR. KAPLAN: Good morning, Seth Kaplan,
16 president of International Economic Research LLC, to talk
17 about causation. To summarize, the injury suffered by U.S.
18 producers was caused by low-priced imports, significant
19 global overcapacity, depressed prices, which were
20 transmitted to the U.S. market through imports.

21 The overcapacity stems primarily from massive
22 expansions in China and by Chinese-owned and related
23 companies in Malaysia, Thailand and Vietnam, but also from
24 imports from Korea, Mexico and Canada. The new capacity is
25 focused on exports to the United States. So how has it

1 worked? Well, this is a story you've seen many times at the
2 Commission.

3 Massive global overcapacity, caused by
4 subsidization or not, global price declines due to this
5 capacity and a race to the bottom in prices. These global
6 low prices, below cost, quite often transmitted through
7 increased exports to the United States causing prices to
8 decline in the United States, and resulting in the injury
9 that was suffered as demonstrated by Mr. Szamosszegi in the
10 earlier slides.

11 Let's take a look. The Commission well
12 understands what happened here, because the relief period
13 identified is the period after the Commission afforded
14 relief from imports from China and Taiwan. That is the best
15 evidence you have of what caused injury. Who's the driver
16 of injury? You provided relief. The industry did better.
17 The foreign producers relocated or new production facilities
18 occurred, and now we're back to where we are again.

19 This is a natural experiment. You don't need
20 a lot of theoretical work. No scientific but for analysis,
21 although that is very useful to identify how this works as
22 an economist. But you see here what happened after you
23 provided relief, and after that relief was no longer
24 effective due to the relocation of facilities.

25 It is obvious that imports have driven this

1 market. The chronic overcapacity has been documented in
2 many different guru reports and in the Commission's own
3 report. Some of the numbers vary, but every analyst agrees,
4 as to do all the 10(k) producers everywhere, that there's
5 massive global capacity.

6 Take a look. Here's unused global capacity
7 from the calculations I made, and there's global
8 installations. Two-thirds of total global installations are
9 now sitting with excess capacity. I'll restate again,
10 excess capacity accounts for two-thirds of the
11 installations. Where is this production coming from? Part
12 of it is coming from East Asia. Let's take a look in 2012.
13 This is what happened in 2016.

14 '12, '16, '12, '16, massive capacity
15 increases. '12, '16. You notice the U.S. has increased
16 capacity slightly, but nothing compared to the new entrants
17 and the increase in capacity of existing players and new
18 players. Who are these people? Let's take a look. The red
19 circles in the new capacity show that these -- many of these
20 companies are either Chinese-owned or Chinese-related,
21 having most of their facilities in China.

22 They relocated or built new facilities outside
23 of China in these other countries, to bypass the dumping
24 orders and CVD orders that you put in place to protect the
25 domestic industry. There is admissions to this. The second

1 quote from a -- this is not overheard somewhere. These are
2 financial filings. Some of our key competitors, including
3 Trina Solar Limited, Jinko Solar and Canadian Solar have
4 expanded their manufacturing facilities outside of China as
5 a means to circumvent potentially adverse effects from
6 anti-dumping and countervailing duties.

7 They were successful. There's two producers
8 left. The rest of -- some of the remaining slides also
9 report financial statements showing that the additional
10 capacity is targeted to the U.S. market. Press releases say
11 the same thing. Third party reports say the same thing.
12 Imports are increasing and capacity was built, and that capacity was
13 targeted to the United States, and the targeting to the
14 United States and the overcapacity combine to produce the
15 wreckage and devastation you see to the domestic industry
16 today.

17 Let me turn to the two reports that were put
18 in by the other economists briefly. First, Dr. Balistreri
19 put in a report using standard ITC techniques to measure the
20 effect of the surge in imports. What it showed is that the
21 subject imports cost the domestic industry revenues of
22 between 500 and 775 million dollars from 2013 to 2016. You
23 took 2012 as the base year, a year in which the industry was
24 actually already devastated by dumped imports, and said no,
25 my model only looks at the increase in imports.

1 It's very explicit about that, very
2 professional in stating it. But that increase from '12 to
3 '13 through '16 cost \$500 million to \$775 million in
4 domestic industry revenue, and depressed it by 45 to 70
5 percent. Now Dr. Balistreri was very careful in saying what
6 his model and it didn't do. I want to point out several
7 things it did not do that I think caused it to
8 underestimate the effects of these imports.

9 First, the model talks about no losses. It
10 was about an increase from 2012. But that was the year in
11 which seven domestic firms already had gone bankrupt, and
12 the industry was operating losses with \$337 million, with an
13 unheard of at the Commission negative 62 percent margin. A
14 negative 62 percent margin.

15 He doesn't count the injury in that year
16 because he's looking at growth in imports from that year.
17 But that's kind of arbitrary, because we have a five year
18 POI. That injury, I think, is something that the Commission
19 should look at and the cause of that injury was the imports
20 from the dumping cases. The models assume in one version
21 the domestic producers chose to leave the utility sector
22 rather than being forced out.

23 I ask that you ask the representatives here.
24 They have been active participants in the utility sector.
25 It is the most price-sensitive sector, the sector that was

1 dominated by import pricing, and that we were forced out of
2 that. The model assumes, fails to explicitly capture firm
3 exit due to price suppression and depression. The model
4 fails to recognize that the investment in the industry is
5 lumpy, driven by increased optimal size.

6 So you're in a situation now where the
7 industry is a semi-conductor industry and needs large
8 facility installations. They can't add a little more
9 capacity so much as to be effective to add it in large
10 chunks. The type of barriers created by the imports have
11 caused injury because of this lumpy investment pattern.

12 Finally, let me turn to Dr. Prusa, whose
13 report mildly is a mystery. First, he fails to address
14 profits and concentrates on prices, but injury is caused by
15 lost profits and the accompanying decline in capacity and
16 injury and unemployment. He fails to incorporate import
17 prices into the analysis, when plainly import prices are the
18 clear driver of what's going on in this market along with
19 their volumes.

20 And finally he fails to do what every
21 economist does when they show up at a litigation, which is to
22 provide their data, provide their code. The Commission
23 staff, the economic professionals in the Research Division,
24 myself and any of your personal staff cannot replicate what
25 Dr. Prusa did. So I think the weight of that should be

1 afforded to something that cannot be examined carefully.

2 Thank you.

3 MR. GALLAS: Good afternoon Madam Chairman,
4 members of the Commission. I'm Philip Gallas, a partner at
5 the law firm of FisherBroyles, appearing today with my
6 client, SKC, Inc., a Covington, Georgia manufacturer of
7 ethylene vinyl acetate EVA sheets used to make CSPB modules.
8 SKC, which was established in 1998, continues to be a
9 leading producer of PET films.

10 SKC appears today as a supporter of the
11 safeguard trade remedy action. Ms. Emmarine Byerson, SKC's
12 Senior Accounting and Risk Manager, will testify, and SKC's
13 business manager, Mr. Aiden Oh and I will available for
14 Commission and staff questions. I'll turn it over now to
15 Ms. Byerson.

16 STATEMENT OF EMMARINE BYERSON

17 MS. BYERSON: Good afternoon. SKC appreciates
18 the opportunity to voice our support for Suniva and Solar
19 World, Section 201 action, and help explain our position
20 that the U.S. PB industry has been injured by substantially
21 increased imports for CSPB cells. Until stopping production
22 in May of this year, SKC provided EVA sheets and back sheets
23 used by domestic PB module makers, including Petitioners
24 Suniva, Solar World and other U.S. companies.

25 Solar cell encapsulant film protects the solar

1 cell from outside air and moisture, gives strong adhesion to
2 glass or back sheet, and protect the solar light module from
3 the environment. SKC's production of EVA sheets satisfied
4 these demands, as does back sheets.

5 EVA produced in this Georgia plant typically
6 comprised around six percent of a CSPB module total
7 manufacturing cost, which was not an insignificant amount.
8 SKC's experience as a supplier of EVA to the U.S. domestic
9 industry illustrates the devastating impact of increased
10 import competition.

11 In 2010, to support the growing U.S. solar
12 panel industry, SKC Incorporated invested \$50 million in a
13 new manufacturing plant to produce the EVA film used in the
14 CSPB modules. From 2011 to 2017, SKC produced the EVA film
15 in its Covington plant and imported back sheet material from
16 its parent company in Seoul, South Korea.

17 During this period, SKC sales of those
18 products increased from about 600,000 to over 22 million
19 before dropping to 2.5 million in 2017. We were the last
20 remaining U.S. producer of EVA since the STR Solar shut down
21 its solar film and panels factory in 2015 here in
22 Connecticut I believe it was. Domestic manufacturers facing
23 heavy import competition have sought to decrease the price
24 of their own inputs in order to save their market share from
25 products made with low cost foreign source material.

1 After the imposition of the AV/CVD duties, SKC
2 received repeated inquiries from Suniva and other U.S.
3 customers requesting whether we could possibly decrease our
4 prices for EVA and back sheets, but at that time SKC was
5 unable to reduce its manufacturing costs and lowered the
6 prices enough to pass on the savings to our U.S. customers
7 and continue to remain competitive.

8 Some of SKC's major customers included Suniva,
9 Solar World, Mission Solar, Stion and other smaller PB
10 customers in the U.S. SKC also made EVA and exported EVA to
11 other countries, facilitated and supported by the Ex-Im
12 Bank. In 2017, after reduction in orders from our major
13 U.S. customers, including Mission Solar, who also had a
14 major reduction in their labor force, SKC was finally forced
15 to stop EVA production.

16 At its height, SKC's Covington facility
17 employed between 25 and 30 employees in the production of
18 the EVA film. The production of the EVA film in Covington's
19 plant was supported by other U.S. suppliers and producers.
20 For example, SKC purchased resin from a domestic
21 manufacturer in the amount of ten million at their peak
22 production period. Since closing the production line, SKC
23 had to significantly reduce our payroll, reduce purchases
24 from other local businesses. The plant shutdown has had a
25 ripple effect on the local economy.

1 Companies that supplied SKC have lost
2 business, and added in addition to the resin supplier, those
3 supplying wooden pallets, coolers, other packaging material
4 in order for us to assemble and ship the EVA to our
5 customers have also shut down. Today we're urging the
6 Commission to recognize the heavy toll that the increased
7 import competition has already taken on the U.S. solar panel
8 manufacturing industry.

9 For these reasons, it is critical that the
10 Commission find injury and recommend a sufficient remedy
11 that protects the U.S. domestic industry and allows
12 suppliers like SKC and others to re-enter the market,
13 supplying CSPB components made by U.S. workers. This will
14 restore the entire market ecosystems, consisting of the
15 cells, the modules, the EVA, the back sheets and other
16 products that comprise the entire supply chain. Thank you
17 and we will be happy to answer any questions if you have
18 any.

19 STATEMENT OF FRANK YANG

20 MR. YANG: Good afternoon. My name is Frank
21 Yang, and I'm the VP of Business Development and Marketing
22 for Stion. We're a U.S. solar panel manufacturer based in
23 Hattiesburg, Mississippi, and I helped found the company in
24 2006. Stion is one of two companies producing thin film
25 solar panels in the U.S. along with First Solar, which has a

1 facility in Perrysburg, Ohio.

2 Thin film panels are made using a fully
3 automated high volume process that is similar to flat panel
4 TV manufacturing. Our panels are largely interchangeable
5 with silicon panels in solar installations, and like the
6 companies discussed earlier, we've suffered significant
7 impact in our business from the anti-competitive measures
8 from China and other countries.

9 Stion does 100 percent of its manufacturing in
10 Mississippi, and has 170 employees with an average wage of
11 \$67,000 per year. That's over 20 percent higher than the
12 average wage at all companies in Mississippi, and over 50
13 percent of our workers, including over 70 percent of our
14 production workers are minorities. Since the company's
15 founding in 2006, we've invested over \$400 million total in
16 the technology development, manufacturing and sales and
17 marketing here in the U.S.

18 We are today I believe the only company that's
19 building 100 percent of its product in the U.S., and we're
20 actually 100 percent U.S. owned as well, including a
21 significant portion by our employees. We have total
22 production capacity of 150 megawatts and enough space on
23 site to expand to nearly one gigawatt of production and
24 employ greater than 1,000 people.

25 Of course our projected growth has been slowed

1 by some of the conditions discussed here earlier today. I'd
2 like to reiterate the point brought up earlier, that U.S.
3 manufacturing adds high skilled, high wage jobs to the U.S.
4 economy which are very difficult to replace, especially in
5 regions like Mississippi which are among the poorest in the
6 nation.

7 The United States today has three and half
8 million skilled manufacturing jobs versus seven million
9 construction jobs. Many of the solar jobs you'll hear about
10 later are in fact construction jobs which involve solar, as
11 well as other trades and are in fact seasonal and temporary
12 in nature.

13 Chinese manufacturing has of course caused
14 severe injury to all crystalline silicon and thin film
15 producers, as our products are largely interchangeable in
16 projects and have become a commodity that are largely sold
17 on price. Over 90 percent of the panels as you know are
18 used in the U.S. are imported, and the vast majority are by
19 Chinese and Chinese-owned companies.

20 I think it's worth reiterating that despite
21 very large manufacturing scales, most of the Chinese
22 manufacturers are unprofitable as well. They continue to
23 underprice and incur losses using generous government
24 backing to eliminate foreign competition. Furthermore, the
25 restrictions on Chinese cells and their geographic

1 manipulation of production capacity have actually created
2 stricter import/export requirements globally, making it more
3 difficult for us to do business all over the world, not just
4 in the U.S.

5 Today, solar panels and inverters represent
6 greater than 50 percent of the cost of any solar
7 installation, as well as the most technologically advanced
8 components. So I'd like to reiterate the point earlier that
9 full elimination of U.S. manufacturing would cause
10 significant energy independence and energy security
11 concerns.

12 The Chinese government, of course, has
13 provided hundreds of billions of dollars in manufacturing
14 loans, and now downstream project assistance to consume
15 excess panel inventory as well, and again allow
16 manufacturers to continue to operate at losses and eliminate
17 competition from other countries including the U.S.

18 So we would encourage ITC to consider this
19 information as part of the injury judgment, and I'd also
20 like to emphasize that similar to auto assembly and other
21 manufacturing industries here, or electronics manufacturing
22 in many of the Asian countries that have presented earlier
23 today, a healthy domestic solar industry needs to
24 incorporate viable local players in all parts of the value
25 chain, including panel manufacturing.

1 So we look forward to providing further
2 information and working with you on this case. Thank you.

3 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein.
4 That concludes the testimony of this panel. Thank you for
5 your time and attention. We'll hold what little time we
6 have left for rebuttal and ready to answer your questions.
7 Thank you.

8 CHAIRMAN SCHMIDTLEIN: All right, thank you
9 very much. I think we will break for lunch at this point,
10 given that it's 12:30, and we'll come back because I'm not
11 sure how long the questioning is going to last for this
12 first panel. So rather than take us to three o'clock in the
13 afternoon potentially, I'd rather go to lunch now, and then
14 after we finish the questioning with this panel, we'll take
15 a short break before the presentation by the Respondents.

16 So that break will not be long enough, I
17 think, for people to leave the building. So I would suggest
18 you buy that extra snack now and bring it with you, since
19 we're not sure we're going to go tonight. We're going to
20 finish this hearing today though. So with that, let me
21 remind you that the hearing room is not secure, so please
22 take your papers with you, including your business
23 confidential information, and we will reconvene at 1:30.
24 So we stand in recess until then.

25 (Whereupon, at 12:30 p.m., a luncheon recess

1 was taken.)

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

1 A F T E R N O O N S E S S I O N

2 MR. BISHOP: Would everyone please begin to take a
3 seat.

4 (Pause.)

5 Will the room please come to order.

6 CHAIRMAN SCHMIDTLEIN: Alright. Good afternoon.

7 Mr. Secretary, are there any preliminary matters?

8 MR. BISHOP: Madam Chairman, I would note that the
9 panel in support of the Petition have been reseated. I
10 would remind all witnesses that you are still under oath.

11 CHAIRMAN SCHMIDTLEIN: Thank you. I would like to
12 thank all the witnesses on the panel for your testimony this
13 morning and for your time in being here.

14 We will start the questioning with Commissioner
15 Williamson this afternoon.

16 COMMISSIONER WILLIAMSON: Good afternoon. And I
17 too want to thank all the witnesses for their testimony this
18 afternoon.

19 I want to start right off with a question that I
20 guess the Respondents have raised. And I guess I'll start
21 off with SolarWorld.

22 Mr. Stein, could you address this question of
23 what effect the bankruptcy of your parent has had on your
24 operations? And also could you please, to the extent that
25 you can in this public forum, address the implications of

1 the adverse judgment for breach of contract with Hemlock
2 Semiconductor. What effect is that having on your
3 operation? And what does that have to do with your
4 profitability in a sense, since the Respondents have, you
5 know, questioned whether or not the domestic producers are
6 really good business people?

7 MR. STEIN: Commissioner, thanks for that
8 question. Maybe to explain a little bit the situation of
9 SolarWorld AG--

10 MR. BISHOP: Could you pull your mic a little
11 closer, please? Thank you.

12 MR. STEIN: Sure. And what happened to SolarWorld
13 AG. It's more or less the same situation we see here in the
14 United States.

15 The European market does not behave very
16 differently. It was a healthy market over years with up to
17 20 gigawatt. Now it's down to 10 gigawatt at the moment,
18 but this is--

19 COMMISSIONER WILLIAMSON: Of production?

20 MR. STEIN: Production is much less.

21 COMMISSIONER WILLIAMSON: Okay.

22 MR. STEIN: So the same as we see here in the
23 United States that we have seen many, many competitors going
24 out simply because the European market was flooded. Even it
25 was one of the starting markets as the United States, we have

1 seen many of our competitors left the market, had stepped
2 out, very, very famous names are on that list. So it's more
3 or less the same we see here in the United States.

4 SolarWorld AG faced the same situation. A strong
5 restructuring plan to focus on the right technology, on the
6 prep technology. SolarWorld has been the first company
7 focusing on mono and mono PERC.

8 We were the largest producer of mono PERC in the
9 world. SolarWorld AG and SolarWorld Americas. And now we
10 see that the industry is following on that path. So this
11 market was flooded, same as here, and we have seen that in
12 the last year, 2016, even with the right restructuring
13 program in place for SolarWorld AG, the prices were falling
14 and falling. And there was a time the beginning of this
15 year in May when SolarWorld AG had to file insolvency.

16 COMMISSIONER WILLIAMSON: Okay.

17 MR. STEIN: It's a very parallel development, we
18 have to say, we see in Europe and we face the situation in
19 the United States.

20 COMMISSIONER WILLIAMSON: Could you also address
21 this question of Hemlock Semiconductor, which sounds like a
22 supplier, a dispute between a supplier and its customer, but
23 I'm not sure.

24 MR. STEIN: I'm sorry? Juergen Stein from
25 SolarWorld, I forgot that the other time. Sorry, Hemlock

1 Semiconductor was one of the suppliers to a subsidiary of
2 SolarWorld AG in Germany, SolarWorld Industry Saxon, with a
3 long-term contract of polysilicon, long-term contracts which
4 were done in years 2010 around several contracts on several
5 years.

6 Like many other customers did with Hemlock, like
7 many other suppliers did also with SolarWorld, so that is
8 not one isolated contract. It was to that time, 2010, the
9 industry made long-term contracts with poly suppliers the
10 same, Hemlock and SolarWorld did.

11 The situation is that the contract was not any
12 longer in place. SolarWorld AG could not use up all the
13 demand, which was in the contract and so on--don't want to
14 go into details of that contract--and SolarWorld business.
15 At the end of the day, this dispute was between Hemlock and
16 SolarWorld Industries Saxon, a subsidiary of SolarWorld AG.
17 Nothing to do with SolarWorld Americas.

18 COMMISSIONER WILLIAMSON: Okay, and nothing in a
19 sense to do with the profitability of the SolarWorld US
20 operations?

21 MR. STEIN: No.

22 COMMISSIONER WILLIAMSON: Okay. That's the
23 clarity I wanted.

24 MR. STEIN: Thank you.

25 COMMISSIONER WILLIAMSON: Okay, and it's not

1 affecting the operations, per se?

2 MR. STEIN: It's not affecting the operations of
3 SolarWorld Americas.

4 COMMISSIONER WILLIAMSON: Good. Okay, thanks. I
5 just wanted to clarify all that.

6 MR. BRIGHTBILL: Mr. Commissioner, Tim Brightbill,
7 Wiley Rein. There was an insinuation that the parent
8 company's bankruptcy was the only reason why SolarWorld
9 joined this Petition. I can verify, and Juergen can as
10 well, that that's incorrect. And SolarWorld Americas
11 reached that decision after assessing the market and the
12 damage to the industry. So it was not related to what the
13 parent did or didn't do.

14 COMMISSIONER WILLIAMSON: Okay, thank you for that
15 clarification because I should have asked that question,
16 too.

17 Let's turn to Suniva, because I guess there were
18 kind of similar questions raised as regards Suniva's
19 bankruptcy and what role the arguments that I guess
20 Respondents have made that certain hedge funds have said
21 this is way for them to sort of make money out of the
22 situation.

23 So I'm wondering if you could address that?

24 MR. CARD: Absolutely. Matt Card, Suniva. Sorry,
25 I'll probably do that a few times, too. I appreciate that

1 question. There's been a tremendous amount, and quite
2 honestly it's been quite frustrating, in the press about
3 this. And our opponents have continued to bring that issue
4 up, ignoring of course the first responsibility that any
5 business has, the fiduciary responsibility to their own
6 company.

7 So the notion that an investor would like to
8 continue efforts to recoup their investment is relatively
9 fundamental to the American economic system, and I'm a bit
10 surprised that we continue to hear that investor is doing
11 everything possible to recoup and grow their investment is
12 suddenly a crime in this country. But our opponents have
13 made that out to be.

14 What I do want to say is this. And I'm not going
15 to speak for the investor SQN. They are fully capable of
16 speaking for themselves.

17 Having not been a direct party to the
18 interchange, I can only go on what others have told me. But
19 I don't believe that, as has been portrayed by our
20 opponents, is the exact way that that situation has rolled
21 out.

22 They did in fact communicate a letter in response
23 to a question to that very thing. And they went from there.
24 We've had nothing but support from this process from all of
25 our investors. And so I've been very, very pleased with the

1 response they've given us. This has not been a situation of
2 hostage taking or trying to extort anybody. It's been
3 trying to rebuild an American company, and they've been
4 very, very supportive of that.

5 COMMISSIONER WILLIAMSON: Thank you.

6 MR. McCONKEY: If I may--this is Mack McConkey,
7 representing Suniva from Mayer Brown. This issue is a
8 little silly. And you know what? We were hired well before
9 Suniva went into Chapter 11 to bring this 201. It's
10 completely disconnected. This is not that issue.

11 COMMISSIONER WILLIAMSON: Okay. What about--has
12 Suniva ever--what is the relationship, or has it ever had a
13 relationship with a producer, exporter or importer of CSPV
14 cells or modules from China? And I guess related to that,
15 what is the current relationship between Suniva and its
16 parent Shunfeng?

17 MR. CARD: Fair enough. We had common investors
18 with Suntech of China, but there was no direct relationship
19 or actually even commercial relationship between Suntech or
20 Suniva. Shunfeng Wind Energy International had a
21 investment into Wu Shi Suntech, a Chinese manufacturer. They
22 also had an investment into Suniva. They also had an
23 investment into 13 other, I believe is the correct number,
24 13 to 15 other renewable energy assets around the globe.

25 So in the broadest sense we are cousins,

1 siblings, something of that nature, but we're distant
2 cousins. We've not collaborated on product, not with
3 design. It's not been a factor in that.

4 You asked the question specifically about what is
5 Shunfeng's role in this process now. Suniva right now is
6 under control of the U.S. Bankruptcy Court. Our share
7 structure is well known. About 60 percent of our shares are
8 owned by Shunfeng. The rest are owned by others. But
9 what's important to note in the bankruptcy documentation is
10 that now a full 70 percent of Suniva's ownership is
11 controlled in warrants, executable at any time, by our
12 financiers, the combination which we just talked about, but
13 others as well.

14 So Shun Fang has largely washed their hands of
15 this. As my counsel mentioned, it's ludicrous as it's been
16 proposed in the press that suddenly eight days after
17 bankruptcy a 550-page petition suddenly magically makes its
18 way into the Commission.

19 I think my counsel was incredibly good, but
20 they're not that good. This was started well in advance of
21 that process, and it was started obviously with direct
22 knowledge of our ownership.

23 COMMISSIONER WILLIAMSON: Okay, thank you. All my
24 ten minutes have been used up, but I wanted to get these
25 things out of the way and I'll have more questions later.

1 Thank you.

2 CHAIRMAN SCHMIDTLEIN: I'm sorry. Commissioner
3 Broadbent.

4 COMMISSIONER BROADBENT: So, Mr. Card, Shunfeng
5 supports the Petition?

6 MR. CARD: We've had no effective contact with
7 Shunfeng since not long after the Petition was filed. Shunfeng
8 was in control. Shunfeng's acting president was in
9 control on the day the Petition was filed. But as our
10 bankruptcy representatives will tell you, the board of
11 directors or Shunfeng's management have had, I believe, no
12 contact, though I can't speak with 100 percent certainty of
13 that, with the bankruptcy court or our bankruptcy officials
14 in any matter, whether it be the 201 or the bankruptcy
15 since early April.

16 COMMISSIONER BROADBENT: But during the time when
17 all the deliberations were going on on whether the Petition
18 was to be filed, Shunfeng was supportive? They have 60
19 percent ownership, right?

20 MR. CARD: Yes, ma'am.

21 COMMISSIONER BROADBENT: And it's just you haven't
22 talked to them since the bankruptcy--

23 MR. CARD: Yes, ma'am.

24 COMMISSIONER BROADBENT: --proceeding kicked in.
25 Okay.

1 Alright, Mr. Stein, I was sort of intrigued by
2 the European Commission testimony on the first panel. I
3 don't know if you were here to hear them, but they were kind
4 of admonishing the U.S. not to take particular safeguard
5 actions and so forth.

6 Can you explain to us how the Europeans handle
7 their price undertaking with the Chinese to alleviate what
8 you think are similar problems in both markets?

9 MR. STEIN: Juergen Stein, SolarWorld. I'm not
10 sure if I'm the expert to explain how the European works,
11 and what the intent of the European Union at the moment is
12 for--on their reaction on their undertaking--

13 COMMISSIONER BROADBENT: Okay.

14 MR. STEIN: --which is a place we can of course
15 provide some more informations after that, and add that.
16 But I'm not the expert to speak about that one.

17 COMMISSIONER BROADBENT: Mr. Brightbill, did you
18 have any comments?

19 MR. BRIGHTBILL: Just generally. The European
20 Union faced the same--faced unfair trade behavior from
21 China, imposed minimum import price which was unfortunately--
22 --had some issues with it and was not largely successful.

23 Many EU manufacturers have continued to face
24 pressure from that. There have been active circumvention
25 cases filed by the domestic producers there concerned about

1 circumvention of the minimum import price. And a number of
2 Chinese companies have dropped out of the minimum price
3 agreement and they're no longer subject to it.

4 So there were trade measures taken there similar
5 to the ones taken here for solar trade case one and two.
6 They've been not terribly effective, and certainly that is
7 part of a main contributor to the bankruptcy of SolarWorld
8 AG.

9 COMMISSIONER BROADBENT: Okay. Did their
10 experience sort of inform your remedy recommendation?

11 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein. We
12 have not--SolarWorld has not yet recommended a remedy. We
13 will do so at the appropriate time. And we're talking to a
14 lot of parties about that. We'll also put forward an
15 adjustment plan and consult with USTR on it. So right now
16 we're considering the full range of remedies, and we will
17 work with our co-petitioners on that, and we'll work with
18 others in the industry to ensure that the remedy is
19 effective for domestic producers, and also effective for the
20 broader solar industry as a whole.

21 COMMISSIONER BROADBENT: Well that's interesting.
22 What would you recommend might help the broader solar
23 industry?

24 MR. BRIGHTBILL: Well today you've heard a lot of
25 concerns about solar industry, writ large, solar installers

1 and so forth. Our goal is to put a remedy in place that
2 assists U.S. manufacturing. Helps them adjust to this
3 temporary import surge, or--it's been long lasting, but
4 import surge from around the world. And one that is
5 responsible and continues to encourage solar growth in the
6 United States.

7 Demand is strong here. We value manufacturing
8 jobs. We value all jobs in the solar industry. We're the
9 leaders of this industry. So when we recommend a remedy in
10 an adjustment plan, we'll take all of that into place.

11 Certainly part of what we'll be doing is looking
12 for a way to rebuild manufacturing here in the United States
13 and the entire supply chain.

14 COMMISSIONER BROADBENT: Mr. Card, do you agree
15 with those comments?

16 MR. CARD: What I would agree with, and obviously
17 a tremendous amount has been made of the remedy suggestions
18 that Suniva has made--I'm sorry, Matt Card, Suniva--a
19 tremendous amount has been made about the remedies that have
20 been suggested.

21 The remedies that were developed were under
22 careful consideration both with our board of directors, our
23 management team, other advisors from our own law firm, and
24 in cooperation with our co-petitioner.

25 One of the statements I made in my opening

1 remarks was that our co-petitioner and ourselves speak with
2 a unified voice. We represent 90-plus percent of the
3 remaining industry, and we've developed I think a
4 tremendously productive and transparent relationship.

5 I am interested in a solution that solves the
6 U.S. manufacturing issue and allows the U.S. installation
7 market to continue to grow. Like I also said, we're not out
8 to kill the industry. Our families get fed the same way the
9 install community's families get fed, with all of us
10 growing.

11 And so we are very open to a solution that works
12 for all parties. I can only speak from the lens through
13 which we view the world, and we view the world as a
14 manufacturer. So far there's been a tremendous amount of
15 dialogue openly about the grave injury, but so far no other
16 party on any side of this issue has come forward with any
17 remedy suggestion other than ours.

18 For me to speculate on others is effectively just
19 a discussion with myself. No other party has suggested
20 anything at this point.

21 COMMISSIONER BROADBENT: Okay. This is for Mayer
22 Brown. In our fact sheet on the impact of Section 201
23 remedy on employment in U.S. Solar Industry, you estimate
24 that U.S. solar cells and module manufacturing employment
25 would increase between 3700 and 4500 workers--thousands,

1 excuse me, 45,500 workers.

2 These job increases are substantial compared to
3 just general employment levels and the employment we're
4 trying to encourage. What would occur on the ground that
5 would result in this job growth? I know the model is
6 getting you there, but I'm just trying to envision what's
7 going to happen.

8 MR. PAYNE: Warren Payne, Mayer Brown. Thank you
9 for the question. The assumptions that go into those job
10 estimates are that there is new investment in cell and
11 module production capacity that would raise U.S. cell
12 capacity to 3 gigawatts per year, and module capacity to 2.6
13 gigawatts per year.

14 The model does get us there. As I said, it's a
15 relatively straightforward application of the Department of
16 Commerce model. So we use their parameter estimates, and
17 use their data, and the results are that the U.S. industry
18 scaling up to that level results in that rate and quantity
19 of jobs.

20 COMMISSIONER BROADBENT: And that could happen in
21 four years? That number of jobs in four years?

22 MR. PAYNE: Warren Payne, Mayer Brown. Yeah. I
23 think what you heard in the earlier presentation today is
24 that the industry has the ability to scale up rapidly. And
25 I think it would be instructive for Mr. Card to talk about

1 their experience in standing up new facilities.

2 MR. CARD: Matt Card, Suniva. We do have fairly
3 significant experience in bringing up primarily cell
4 manufacturing facilities. We did it initially in 2008, if
5 I'm doing my math correctly. We then expanded shortly
6 thereafter that. And then last year in two thousand--
7 starting at the end of 2015 through 2016, we expanded
8 again.

9 All of those facilities were brought up in less
10 than 11 months. What's notable is the last expansion we did
11 we also did while maintaining operations. Not to say that's
12 a perfect process, but it's certainly a much more complex
13 process to keep a factory running while you even expand upon
14 it.

15 So in a pure greenfield development, we're very
16 confident that cell manufacturing can be brought up, and
17 we've seen the same thing written in other trade press, in
18 aggressively six months and, you know, maybe less
19 aggressively, under a year.

20 COMMISSIONER BROADBENT: Okay. Back to Mr. Payne.
21 Are you saying that these employment increases would be just
22 an integrated cell and module producers, or independent
23 module assemblers?

24 MR. PAYNE: Warren Payne, Mayer Brown. Those job
25 estimates are based on the full value stream of the

1 manufacturing process. So it's cell. It's module. And
2 it's all the upstream suppliers, silicon, glass, aluminum,
3 et cetera. All those estimates and assumptions about what
4 the upstream impact is come directly out of the Department
5 of Commerce model. They're not ours. They're actually
6 hardwired into the Department of Commerce analysis.

7 COMMISSIONER BROADBENT: Say that again about the
8 DOC analysis?

9 MR. PAYNE: The estimates about the impact on the
10 upstream industry, how many jobs would come from the
11 upstream industry, glass, aluminum, et cetera, those are all
12 taken--those are all parameter estimates and assumptions
13 that come out of the Department of Commerce model. They're
14 not ours. So we just take them as the Department of
15 Commerce provides them.

16 COMMISSIONER BROADBENT: Okay, so these are jobs
17 beyond the solar--the solar industry writ large, really.
18 These are aluminum--

19 MR. PAYNE: The full value chain of the solar
20 industry.

21 COMMISSIONER BROADBENT: Okay. Alright--

22 MR. BRIGHTBILL: Commissioner, Tim Brightbill,
23 Wiley Rein. You asked how quickly things could ramp up and
24 could it be done in four years. I think the evidence, or
25 the best evidence is what's happened in Asia and so many

1 other countries where they've ramped up in year or less.
2 And certainly SolarWorld and others would have the same
3 ability here in the United States.

4 And bringing their existing capacity back online
5 would happen even faster.

6 COMMISSIONER BROADBENT: Okay, thank you. My time
7 has expired.

8 CHAIRMAN SCHMIDTLEIN: Okay, thank you.

9 I want to start with a question about the theory
10 of the case for the Petitioners, I guess. And you point
11 back to the Solar 2 decision, I think you quoted a couple of
12 times in your briefs with regard to the arguments in grid
13 parity and incentives.

14 But I want to focus on the fact that in that
15 decision the Commission did not find significant price
16 depression or suppression. The basis of that decision was
17 that there was significant under-selling and a lack of
18 market share that led to material injury.

19 So my question to you in this case, and
20 recognizing that a safeguard case is different. Obviously
21 the standards are different, but there's also no requirement
22 that the Commission look at those pricing factors that are
23 in Title 7. But of course in trying to establish whether or
24 not there's causation, we're looking at are imports causing
25 prices to go down and so forth. So my question is:

1 Are you arguing that imports are causing prices
2 to drop in the United States? And if you are, how do you
3 distinguish--what has happened, I guess, since the decision
4 in February of 2015 where we did not find that imports were
5 causing prices to be depressed in the United States? What
6 has changed? And are you arguing that something has changed
7 in the last two-and-a-half years, or year-and-a-half I
8 guess?

9 MR. BRIGHTBILL: So, Chairman, Tim Brightbill,
10 Wiley Rein. I can start and others can join in.

11 Under Section 201 we're not required to show this
12 as part of the legal standard to find serious injury, and
13 that global imports are a substantial cause of that.
14 However, price effects are obviously extremely important to
15 injury and threat and to understand what's going on in the
16 market. That's why the Commission and the staff gathered
17 under-selling data which showed the very compelling majority
18 of under-selling in the market even more when you measure it
19 by volume.

20 We think that the combination of events that
21 happened since Solar 2, the additional over-capacity that
22 came on, the fact that the U.S. industry started to recover
23 and then fell off when there was a complete price collapse
24 in the second half of 2016, is something that the Commission
25 should look at and factor in as a condition of competition.

1 So we made quite clear what happened in this
2 market: additional over-capacity, added in third countries,
3 and that combined with China's reduction of its feed-in
4 tariff right around June of 2016, led directly to a price
5 collapse, including a price collapse here in the United
6 States. Here again, and Matt can testify to the severity of
7 that. So there was price depression as a result of the
8 over-capacity and the import surge which intensified in
9 2016.

10 Imports have to surge in a way that's rapid,
11 sharp, sudden, and significant. We have that. And it did
12 cause price effects even though we don't have to prove that
13 to win this case.

14 CHAIRMAN SCHMIDTLEIN: Um-hmm.

15 MR. STEIN: Juergen Stein, SolarWorld. To
16 underline the view of the SolarWorld Company, what we have
17 seen, Trade Case One was not very successful just against
18 the Chinese cells because it was very easy to build up a new
19 supply chain with all the cells coming out of Taiwan.

20 But after the Trade Case Two, it took much longer
21 that we saw any kind of work-around solutions there. It
22 took much longer, that additional capacity from China would
23 build up in other countries outside of China and Taiwan. So
24 it was more than the 12 months to get everything started.

25 And that resulted for us in recovery 2014 and

1 being positive in 2015, and also being positive in 2016.
2 But then all the volume came to the market mainly because we
3 have seen that before the feed-in tariff policy in China
4 was changed in the second half of 2016, the demand in China
5 went down. And all that volume came on the global market,
6 and all that volume came into Europe and the United States.

7 So it's clear for me that this is the
8 over-capacity which led to the falling prices in the second
9 half of 2016, nothing else.

10 MR. McCONKEY: Matthew McConkey from Mayer Brown.
11 I just want to echo that. Some things did change after 2015.
12 I think after the second Order went into place you saw the
13 Chinese open up facilities throughout other parts of the
14 world, which Seth Kaplan's chart showed with his dots, and
15 that increased capacity flooded into the United States.

16 So there was a huge increase in imports five
17 times we saw in the second part of 2016. And that drove
18 down prices. The impact of that has been the significant
19 cause of the injury suffered by these guys.

20 And so I'd like to turn it over to Matt Card of
21 Suniva here for a minute to explain how the price
22 depressions worked in the POI.

23 MR. CARD: Matt Card, Suniva. As fortune would
24 have it, I have a very specific example for you and it
25 tracks basically from January of 2016 through February of

1 2017 on the same actual project.

2 In late 2015, a large customer of ours, repeat
3 customer of ours, approached us about a utility-scale
4 project, 13 megawatts of, actually between 13 and 14
5 megawatts of project in the Upper Midwest. Without boring
6 you with all the details, we largely got to a verbal--to a
7 point of verbal agreement, at which point the partner asked
8 for a contract on roughly January 26.

9 The agreed-upon price was 66.5 cents per watt.
10 In that same time, and evidence would indicate, they asked
11 for help in discussing with the state in which the project
12 was located because they saw some value obviously in having
13 an American manufacturer for this, and they said that they
14 would do the deal. And I believe I quote. "At that price
15 no matter if there is a downturn."

16 Now I've been in sales a long, long time, and the
17 only deal that's a true deal is actually if it's a payment.
18 A signed contract just needs--it could be a litigated deal,
19 but nonetheless we don't take that for granted that that's a
20 deal, but we had moved to a contract discussion.

21 As utility-scale projects tend to go, there's a
22 high degree of variability and other outputs that affect
23 those. And so what was a 'we need to move immediately
24 project' continued to go through the various issues of
25 permitting, and financing, and things that happen.

1 Fastforward that process from a 'we'd like to
2 discuss a contract' in early February of '16 at 66.5 cents,
3 to roughly November 30th of '16 where we heard again from
4 the customer, the same customer that said you have the
5 product at that price no matter the downturn, and I quote,
6 "we have a tier one lined up at 48 cents. Would you like to
7 renegotiate?"

8 We worked very, very hard and got to the very
9 limits of where we could be, but that deal was not done.
10 Then on 2/16 of 2017 after we were close enough for process
11 at 48 cents, we heard again from the customer. They had a
12 supplier from Southeast Asia now lined up at 38 cents.

13 They said, we'll recognize the work you put in
14 over the last year and we'll give you the project at 40
15 cents. Forty cents at that point was well below our ability
16 to operate. The best we could do was actually operating at
17 what I would call an acceptable loss was a price of 41.5
18 cents per watt.

19 On February 22nd, I got a note from my sales rep
20 that we lost the project at 41.5. They took the lower
21 price. So in the course of 12 months, we saw prices go from
22 66-1/2 cents to 38 cents. We were retraded twice by a
23 partner that offered, by their own words, that price no
24 matter the downturn. Words don't mean what they used to, I
25 guess, but nonetheless there's an example.

1 Also, much has been made out of, I heard in the
2 opening comments again, and frankly it offends me. I don't
3 mean to make this emotional, but it absolutely offends me
4 when I hear statements about Suniva or SolarWorld abandoning
5 a market. They didn't make a product for a market? This
6 was a utility sale product and we fought completely
7 aggressively for a year, with a good partner, a partner we
8 had done business with before.

9 CHAIRMAN SCHMIDTLEIN: Well I appreciate that.
10 That actually leads into another question I had, which was
11 the participation by U.S. producers in the utility segment,
12 which has obviously been made a big point of the
13 Respondents' argument, and I guess if you want to go ahead
14 and address that I was going to ask that question:

15 To what extent does Suniva and SolarWorld and any
16 of the other producers that have since gone out of business,
17 participate in the utility market. And if you could talk
18 about in particular the types of modules that you're
19 supplying, if you do participate in that market.

20 MR. CARD: Thank you. Matt Card, Suniva.

21 CHAIRMAN SCHMIDTLEIN: Well --

22 MR. CARD: Yeah.

23 CHAIRMAN SCHMIDTLEIN: -- and if you could make
24 it relatively brief?

25 MR. CARD: Sure.

1 CHAIRMAN SCHMIDTLEIN: It will come back to us.

2 MR. CARD: Yes, ma'am. We --

3 CHAIRMAN SCHMIDTLEIN: Sorry, we'll come back to
4 it, don't worry.

5 MR. CARD: I'm sure you will.

6 CHAIRMAN SCHMIDTLEIN: Yeah.

7 MR. CARD: We focused on all three markets:
8 commercial, residential, and utility. Now that's true. As
9 a capacity order level, we're not a qualified player to go
10 after a 200 megawatt project. As a business, you have to be
11 smart about the markets you pursue. There's issues such as
12 concentration risk. How much do you -- how many eggs do you
13 want all in one basket? And project size plays into that.

14 We have a long history of participating in all
15 those markets. I mentioned the 13.5 megawatt project. At
16 the same time, we did do another project with that customer
17 at 7 megawatts. The year and a half before, we did 14
18 megawatts with Solar City on the island of Kauai. So there
19 were utility scale projects that had variables that were
20 favorable to a manufacturer of our size and our product
21 capabilities and power that we absolutely pursued.

22 Much has been made of this notion of a 72 cell
23 product and we didn't play in that space. About 40 to 45
24 percent of our overall production of our cells went into 72
25 cell products. Another 40 to 45 percent of those products

1 went into a residential product, basically a black product
2 with a black back sheet that looks nicer on roofs.

3 So I vigorously dispute the notion that there
4 were markets we chose not to play in. I would absolutely
5 support a comment that there were markets we were pushed out
6 of. And I just gave you a -- an example of that.

7 CHAIRMAN SCHMIDTLEIN: Okay, all right, I will
8 stop there and go for Vice Chairman Johanson. Thank you.

9 VICE CHAIRMAN JOHANSON: Thank you, Chairman
10 Schmidtlein. And I would like to begin by thanking today's
11 witnesses and their counsel for being here. The Commission
12 benefits significantly from your testimony.

13 I would like to begin by discussing briefly the
14 Section 201 statute. The last safeguard investigations were
15 initiated in 2001. I was nominated to the International
16 Trade Commission a decade later in 2011. I was excited
17 about my nomination and decided to spend the anticipated
18 several months between my nomination and confirmation
19 preparing for my possible new job.

20 Back in 2011, I made it a point to spend
21 portions of my evenings and weekends studying the U.S. laws
22 that pertained to the ITC. And there are lots of them, more
23 than you may think. I spent a fairly significant amount of
24 time reading the statutes, underlining portions of them,
25 highlighting sections, and writing notes in the margins. I

1 was pretty diligent in 2011.

2 But my diligence only went so far. The only
3 statute that I didn't read was Section 201. And don't
4 worry, I've read it since that time. From what I recall, my
5 thinking in 2011 was that while Section 201 is still on the
6 books, the chance of it being used again was slim at best.

7 I don't think that I was alone in thinking this.
8 This appeared to be the conventional thinking of the trade
9 bar. Moreover for some 16 years, no Section 201 petitions
10 were filed with the exception of one in 2016, which was
11 promptly withdrawn. The 16 year gap demonstrates that at
12 least for a while, the conventional thinking was correct.

13 I'm not contesting the ability of the domestic
14 industry to use this law, but I'm curious, what inspired
15 Suniva and then Solar World to revive the use of the dormant
16 Section 201 global safeguard law?

17 MR. MCCONKEY: Matthew McConkey for Mayer Brown.
18 I'll take the first statement here. And I don't want to be
19 a smart Alec. Whack-a-mole, right? Client came to us and
20 said we're getting killed, right, by imports of this product
21 coming into the United States. What do we do? They didn't
22 know about 201, right? They came to us and said these are
23 the facts. Let's look into it.

24 We pulled up the books and we're looking where
25 is this product coming from? We started seeing the import

1 increases. And they're dramatic from a variety of different
2 countries. And obviously, and I'll let, you know, I'm a --
3 you know, if you're a hammer, nail or whatever. I'm
4 thinking, yes, let's look at dumping cases. Well, we're
5 gone through this country and we add this country, and then
6 we say this country. But you know what? That's been done.
7 That was done.

8 And we saw how quickly that companies and
9 countries and were able to circumvent that. And we did
10 another ADCVD case, we would get through that case. And you
11 would see us a year and a half later with another slew of
12 countries. We'd be chasing this product all around the
13 world.

14 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein. A
15 couple of things. First of all, I think the steel 201,
16 while successful for the domestic industry in the limited
17 amount of time it was in place, took a beating at the World
18 Trade Organization. And so I think there was some hesitancy
19 for a while to return to that until the United States could
20 demonstrate that it could meet those tests and explain its
21 rationale to the World Trade Organization, which has been
22 done now in the China safeguard context, the 421, which was
23 upheld by the appellate body. So I think that that's one
24 reason for renewed confidence.

25 And then I think the other point is the same one

1 that Matthew just made, that Solar World is an example of
2 how the dumping laws were not working to address this
3 problem, even as the first trade case was played out,
4 Solar I, production was being shifted. And the first trade
5 case was being circumvented. And Chinese producers were
6 openly boasting about they had -- how they were able to
7 shift and avoid the dumping and countervailing duties.

8 It took a little longer after trade case 2.
9 Solar World was profitable for a time, but then we saw the
10 spread to so many different countries of overcapacity and
11 pricing pressures, that we had no choice but to look at this
12 as a viable remedy and the one that will work.

13 I'd also point out that many other countries,
14 even though the United States has not made use of it, other
15 countries do use the safeguards law and often because of the
16 same kinds of concerns of imports coming from many different
17 sources. Thank you.

18 VICE CHAIRMAN JOHANSON: Yes, Mr. Kaplan?

19 MR. KAPLAN: Yes, I'd like to refer you to a
20 couple slides to look at the economic side of it. The first
21 one would be slide 25 on my presentation with Mr.
22 Szamosszegi. It's on there twice and it's both in the
23 injury and causation side.

24 And you could see what happened during the
25 relief period. And then the surge again or there was some

1 temporary relief from the orders and how severe things were
2 during the dumping period. And given the fact that these
3 facilities could relocate in months, not years. And the
4 witnesses will answer questions about building a new
5 facility or modules or cells in such a short period of time.
6 The dumping actions didn't seem to work well.

7 There were sequential cases in steel, where you
8 had big facilities and you didn't have imports and you had
9 bring two or three cases, but then the world was covered.
10 It wasn't a matter of the facilities moving.

11 The other slide is slide 18 on Mr. Brightbill's
12 presentation. And that's -- that slide shows what happens
13 to prices. And it also addresses a bit of what Commissioner
14 Schmidtlein had discussed in an earlier question. But if
15 you have 18 before you, you could see how prices fell, then
16 stabilized for a while, and then collapsed again.

17 And so, it shows what happens when capacity
18 moves from one place to another, why the dumping laws don't
19 work. And I also I think for Commissioner Schmidtlein, why
20 you would find price depression in the context of this
21 investigation, given the recent period compared to
22 potentially a difference in facts from the previous
23 investigation.

24 So I hope I wrapped all those things -- three
25 things around in the economics of this is that the 201 seems

1 to address this problem that the dumping did not over the
2 long-term.

3 VICE CHAIRMAN JOHANSON: Thank you for your
4 responses. I appreciate them.

5 Could you please respond to SEIA's assertion at
6 page 41 of their pre-hearing brief that as the increase in
7 imports was largely due to petitioner's own imports and did
8 not interfere with U.S. producers' utilization of their
9 production capacity, imports cannot have been in such
10 increased quantities as to cause or threaten to cause
11 serious injury to the domestic industry?

12 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein. If
13 the assertion is that the imports were due to petitioner's
14 own imports, that makes no sense whatsoever. The global
15 import surge we saw, it's true petitioners did import and
16 did import some quantities, but that pales in comparison to
17 what we saw come in from around the world during the period
18 of investigation. So there's no support for that premise
19 that somehow petitioner's imports are responsible for this.
20 The substantial cause of serious injury is the imports from
21 all of the countries we've named, the global imports.

22 VICE CHAIRMAN JOHANSON: Thank you, Mr.
23 Brightbill. Could you all please respond to the arguments
24 of the China Chamber of Commerce for Import and Export of
25 Machinery and Electronic Products at page 17 in which they

1 state that increased production and capacity in China is
2 reasonable given strong and growing demand in China and in
3 third countries. You all of course in your brief have
4 something to the opposite of that. I just wonder if you
5 could discuss this a bit further because you all seem to
6 have diametrically opposed views of this situation?

7 MR. STEIN: Juergen Stein from Solar World.
8 Maybe I start after that. I mean, what we have seen on the
9 global market, start with that, it's a growing market. It's
10 up to 80 gigawatt, but there are two engines, two engine at
11 the end of the day who really made that. One is Chinese,
12 which grew up to 35 gigawatt. The other market is the U.S.,
13 the United States, which grew up to 15 gigawatt.

14 Yes, there is market in the meantime in the last
15 two to three years the Chinese market was developed. And
16 there is a market. But if we see which companies at the end
17 of the day really succeeded out of that was not the U.S.
18 manufacturing sector, because that was shrinking. The
19 Chinese manufacturing sector was growing, but growing way
20 above the demand this country has, way above the 35
21 gigawatt. They are now going, as we heard before, towards
22 the 60 gigawatt. We see that on other countries, which are
23 here of interests like Malaysia, Korea, Singapore, Thailand,
24 Philippines. All these markets are very small. A lot of
25 this volume all smaller than market of Georgia, the demand.

1 So therefore, they have huge capacities, but no demand of
2 the country behind that.

3 MR. SZAMOSSZEGI: If I can just hop in. My name
4 is Andrew Szamosszegi from Capital Trade. Demand, and you
5 saw from our slide, increased from 2012 to 2016 globally.
6 And that demand increase was strong, but that was largely
7 caused by increases in the United States and China, which
8 grew strongly especially in 2016.

9 In other markets, you had some that were rising,
10 and then some that were falling during the 2012 to 2016
11 period. So in the rest of the world, you actually saw an
12 increase and a decline, an increase and a decline, slight
13 increase overall. But the large increase in global demand
14 was demand in the U.S. and in China.

15 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein.
16 Just briefly, there's no better evidence of the overcapacity
17 than your own pre-hearing report, both for China and for all
18 countries which shows that overcapacity is well in excess of
19 demand. It's just a question of how much. And as I said
20 earlier, the Commission's data is understated because you
21 didn't get full responses from many countries around the
22 world.

23 VICE CHAIRMAN JOHANSON: Thank you, Mr.
24 Brightbill and others. My time has expired.

25 CHAIRMAN SCHMIDTLEIN: Commissioner Williamson?

1

2

COMMISSIONER WILLIAMSON: Thank you.

3

4

5

Mr. Stein, I'll let you go back to finishing the question about the efforts to sell to the utilities. I think you had some things you wanted to say on that?

6

7

8

9

10

11

12

13

14

15

16

17

18

19

MR. STEIN: Oh, yeah, thank you very much that I have the chance to respond to that. Juergen Stein from Solar World. On the utility part, I want to make it very short on that one. We want to be in that market. We always wanted to be in that market. And you see it that we made a big investment in our new module line for 72 cell product, which is a product mainly for the utility market. So put a double digit million dollars into that to expand our capacity exactly for that market. So we were bidding in that market. We were bidding on the projects. We were bankable to the time 2016, first half of 2017, but we were always priced out. We were always put out of that market. Even we addressed it. We wanted to be there and we made commitments to that market.

20

MR. MESSER: Shane Messer --

21

COMMISSIONER WILLIAMSON: Sure.

22

23

24

25

MR. MESSER: -- Solar World here, Commissioner Williams and -- Williamson, I'm sorry. And Commissioner Schmidtleiners (sic), earlier you asked about the same conversation.

1 72 cell is the predominant module in the U.S.
2 for utility scale. And so just in 2016, we had multiple
3 projects in utility. We had one customer that bought over
4 100 megawatts for us for several different projects. And
5 more than half of our volume in 2016 was 72 cell product.

6 So the assertion by the opponents that we were
7 not playing in the 72 cell game, the utility scale game, is
8 absolutely false. By the end -- second half, then we had
9 been forced out just based on volume that was coming into
10 the U.S. and what it did to pricing.

11 COMMISSIONER WILLIAMSON: Okay. I -- the
12 respondents might say you were late to the game, but so I
13 guess the question, how long has this 72 cell been sort of
14 the standard for the utilities versus maybe 60 cell for the
15 residential market. And was there -- early on, did you make
16 a choice or you see what I'm -- in other words, the
17 respondents are kind of saying you're -- if the 72 cell was
18 the market of the utilities you weren't in that game
19 originally, but I'm not sure that's correct, but --

20 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein.
21 Without giving too much away, Solar World's own
22 questionnaire response shows that it was active in the
23 utility market throughout the period and trying to sell even
24 more.

25 So which is why it went to this -- out of the 72

1 cell capability. So it's -- I'd also say the utility market
2 is the most price sensitive. And so, most susceptible to
3 dumping and subsidies from the Solar 1, Solar 2 period or
4 just from a surge of imports.

5 COMMISSIONER WILLIAMSON: Okay. Thanks.

6 MR. CARD: Commissioner, Matt Card, Suniva.

7 COMMISSIONER WILLIAMSON: Sure.

8 MR. CARD: Suniva's making at various volumes a
9 72 cell product for five years. So I'm not sure late to the
10 game would be a characterization. We've been at it longer
11 than many of the installers in this industry have been
12 building solar farms. They were still building houses and
13 restaurants and shopping centers as part of the construction
14 when we were building 72 cell modules. So I'm not sure I
15 would agree with the assertion that we're late to the game.

16 COMMISSIONER WILLIAMSON: Okay. All right.
17 Fair. Is there much difference between -- in terms of
18 building a 60 cell versus a 72 cell module in terms of
19 either capability or appointment or stuff like that or?

20 MR. STEIN: Juergen Stein from Solar World.
21 It's not a big difference at the end of the day if you look
22 at the product. We have at the end of the day two more
23 lines with cells. And it looks very similar. And if you
24 have a very flexible production line, you could probably
25 adjust that very easily. If you have a lot of manual steps,

1 it's even easier, which is not the case in the United
2 States. We want to produce competitive level, we have to
3 have a high degree of automization. We have to get the
4 productivity out of that through the automization, we have
5 to have the higher yields which also is done by the
6 automization. So therefore, once you have automatized the
7 production equipment to one product, it's a bigger thing to
8 change it to 72. So if you already get the competitive cost
9 position, you should have dedicated lines for 60 and 72
10 lines. But in general, as I said, not that much difference
11 of the product itself.

12 COMMISSIONER WILLIAMSON: Okay.

13 MR. CARD: Matt Card, Suniva. What I would add
14 to that, and everything Juergen just said is correct, but I
15 would emphasize to the Commission that the fundamental input
16 to those products, and we characterized the market really by
17 three products, a 72 cell product, a 60 cell product, and
18 what I would call a 60 cell black product, a residential
19 product that's black framed and looks better on houses. The
20 fundamental input to all three of products is the same solar
21 cell. You can make a decision to scale or descale anyone of
22 those products based on what -- what's most effective for
23 your market at the time.

24 COMMISSIONER WILLIAMSON: Okay, okay thank you.
25 Let me turn to a different line of questioning. I'm sorry.

1 Ms. Byerson, could you -- well, I didn't get the -- I
2 wouldn't sure. How long has your company been in business?
3 And did it always -- was it always in the EVA business or
4 was it -- it moved from something else into that and --

5 MS. BYERSON: No. Excuse me, we have been in
6 business since 1998 --

7 COMMISSIONER WILLIAMSON: Uh-huh.

8 MS. BYERSON: -- in Covington, Georgia,
9 producing PET films for the U.S. and domestic market.

10 We have about 300 people, employees there. In
11 2011, 2010, 2011 time frame, we wanted to expand. And we
12 did the additional \$50 million investment in our EVA plant
13 to support the solar industry. And as I explained, we did
14 recently as of May of this year decide to shut it down
15 completely because of the overall industry.

16 COMMISSIONER WILLIAMSON: Okay. Are there any
17 other industries you might say that really kind of -- and
18 the supplier side that got started because the solar
19 industry sort of ramped up?

20 MS. BYERSON: I can't say indirectly. And maybe
21 Mr. Oh can help us. I know we purchased quite a bit of
22 resin, which was a different type of resin that we used to
23 make the film that we normally purchase for our PET. Those
24 are different type of resin that we had to purchase. But
25 coming, you know, package and cores and pallets, we already

1 purchased those material for our PET. But other than that
2 supply chain, I can't say whether it was other industries
3 impact it.

4 COMMISSIONER WILLIAMSON: Okay. Okay. Thank
5 you.

6 MS. BYERSON: Uh-huh.

7 COMMISSIONER WILLIAMSON: Good.

8 MS. BYERSON: Thank you.

9 COMMISSIONER WILLIAMSON: Let me -- Mr. Harner,
10 Green Solar Technologies. As an installer, you sort of
11 hinted that there wasn't -- there was a reason to want to
12 have domestic suppliers. And I was wondering if you might
13 want to expand on that. Now couldn't the installation
14 industry exist with all imported components? Is there
15 something wrong with that?

16 MR. HARNER: Thank you, Edward Harner, Green
17 Solar Technologies. Well, first of all, we're proud of
18 supporting American manufacturing. And it's really a
19 question of quality and warranties, because the length of
20 the warranties in solar is about 25 years. And we found
21 that when we use panels that might becoming from Thailand,
22 Vietnam, to be able to exercise those warranties becomes
23 more difficult. And customers, if one panel goes out and
24 we don't really have panels to replace them very quickly,
25 then the customers will come and blame us because we're the

1 ones who installed them, even if the warranties are with the
2 manufacturer.

3 That's why we feel more comfortable with
4 American products. You know, they're easier to get on the
5 phone. And both of these companies we've installed. And
6 whenever there's a warranty issue, it gets taken care of
7 immediately. So it's a business decision as well.

8 COMMISSIONER WILLIAMSON: Okay. Okay. Thank
9 you.

10 MR. MCCARTY: Excuse me, David McCarty.

11 COMMISSIONER WILLIAMSON: Sure.

12 MR. MCCARTY: Itek Energy.

13 COMMISSIONER WILLIAMSON: Sure.

14 MR. MCCARTY: Our experience with suppliers in
15 both the U.S. and abroad is that on the material supply
16 chain. SKC is one of our former suppliers out of the U.S.
17 And we find the quality to be equal or better with what we
18 could source domestically. And that's why we chose the same
19 strategy that Mr. Harner has.

20 COMMISSIONER WILLIAMSON: Okay. Okay. Thank
21 you for those answers. Go to the next round.

22 CHAIRMAN SCHMIDTLEIN: Thank you. Commissioner
23 Broadbent?

24 COMMISSIONER BROADBENT: Thanks. I need to sort
25 of understand a little bit more of the dynamics of the

1 residential, commercial versus the utility market. Can
2 someone describe to me the procurement process, how it's
3 different for utilities as compared to the residential and
4 commercial projects?

5 MR. CARD: Matt Card, Suniva. I'll take a first
6 attempt at this.

7 COMMISSIONER BROADBENT: Thanks.

8 MR. CARD: It's a function of latency and time
9 and volume. The utility scale market, while a certainly
10 very large segment of the market, is characterized by
11 comparatively fewer number of developers doing comparatively
12 much larger numbers of projects. As with the example I
13 mentioned, the volatility and variability in the selection
14 process can vary greatly. The notion of latency can
15 sometimes be measured in months and years as opposed to days
16 and weeks.

17 Residential would be the other end of that
18 spectrum, which is a very, very large numbers of suppliers.
19 I mean, excuse me of ultimately installers, literally
20 thousands down to where I'm not sure we even know how many
21 there are in the country. It come down to literally guys
22 and a truck who also do roofing, who also do whatever. A
23 huge portion of that market is served through traditional
24 distributors that have traditionally supported for decades
25 small construction. So electrical distributors like

1 GexPro, like Sonepar, like CED, they've become very, very
2 big in solar distribution. They are experts at what I would
3 call breaking and kitting and preparing all the other items
4 that go into these sort of installations.

5 A substantial amount of products of the
6 residential space are ultimately sold to independent firms
7 that are serviced via distributors. Suniva's sales strategy
8 for residential was to work through the distributors because
9 the cost of acquiring all those individually is huge. The
10 customer acquisition costs of those guys are fantastic and
11 are large. And working with the distributor is -- was a
12 very cost effective method of reaching a very, very large
13 number of customers.

14 Commercial and industrial is kind of a middle
15 ground. Not as many individual installers as potentially
16 residential. More installers than say utility. Bigger
17 projects than residential. Smaller projects than utility
18 and commercial industrial can be both what I would call a
19 rooftop project. Or it could be a limited scope ground
20 mount project near a facility or something of that nature.

21 So the way you sell and service those markets
22 are three very different approaches. One, it has to be
23 generated around very high transaction volume, i.e.
24 residential. The other's characterized by a very long sales
25 cycle at the other end utility.

1 MR. MESSER: Commissioner Broadbent, Shane
2 Messer, Solar World. You asked specifically about utility
3 scale in terms of procurement.

4 COMMISSIONER BROADBENT: Yeah.

5 MR. MESSER: So it varies depending on --
6 there are some members of CA that are here that are large
7 manufacturers and also developers. So they can develop a
8 project combined with a utility. There are also developers
9 that just go and develop projects in order to sell product,
10 sell electricity into the utility. So there's developers
11 involved, then a construction company becomes involved.

12 So the construction company, -- for example,
13 is a large scale construction company that gets hired to
14 then go build the utility-scale project. Depending on where
15 the developer sits in their preference of module if they
16 have one will depend on where the module, the equipment
17 becomes a part of the deal. Typically, the general
18 contractor then will source the product, unless it was
19 spec'd when the system was designed.

20 We have, for instance, Petua project in
21 Nevada, 14.2 megawatts, which has been finished recently,
22 where Circ Energy was the developer. Hunt Electric out of
23 Utah was the general contractor and we supplied modules for
24 the product. Does that help?

25 COMMISSIONER BROADBENT: Which of the three

1 folks that procures modules are the most price sensitive? I
2 mean are we talking commercial, utility, residential? Where
3 are they most price-sensitive?

4 MR. MESSER: Utility scale.

5 COMMISSIONER BROADBENT: Utility scale.

6 MR. MESSER: Yes ma'am.

7 COMMISSIONER BROADBENT: Even though -- and
8 then when you said "latency," tell me what you meant by
9 latency?

10 MR. CARD: When I said latency, the time
11 between when a project is first envisioned, the time modules
12 are actually procured or developed. It could be a very
13 sophisticated process that runs months.

14 COMMISSIONER BROADBENT: Okay, it takes a long
15 time. But then the pricing that the utilities are looking,
16 a long latency utility project would -- when would they lock
17 down the price for their modules?

18 MR. CARD: I think that's a very appropriate
19 question to ask some of the people you'll hear from this
20 afternoon, because frankly it depends. There have been a
21 tremendous amount of situations where the end customer buys,
22 the utility that's ultimately buying the power, may
23 renegotiate that up until the very last moment.

24 There are quite a few other situations where
25 that price is locked down well in advance. So when there's

1 still the attempt to drive the module price down, even
2 though the PPA, the power purchase agreement may have
3 already been signed, that's profit straight to the
4 developer's pocket. It doesn't affect their bottom line.

5 COMMISSIONER BROADBENT: Okay.

6 MR. STEIN: Juergen Stein from Solar World.
7 Maybe I can add something that I said before.

8 COMMISSIONER BROADBENT: Please.

9 MR. STEIN: At the end of the day, we talk
10 about three different markets with different
11 characteristics. But the product going into these three
12 markets is exactly the same, maybe a differentiation of 60
13 or 72. But it's exactly the same. So all the three
14 segments are in the same situation. The result we're
15 discussing here today for all three segments are the same.

16 There is overcapacity. They are flooding more
17 volume into these markets than the demand is, and with that
18 in all three markets the pricing is going down and it's
19 quite transparent, the pricing in our industry. So there is
20 no big difference between those three marks. At the end of
21 the day, they suffer all because of the same situation of
22 the overcapacity.

23 COMMISSIONER BROADBENT: So they're all buying
24 roughly at the same price, as that price goes down?

25 MR. STEIN: More or less it's a quite open

1 market to see pricing in the world, and there are statistics
2 about pricing. So yes, at the end of the day all looking on
3 the same product and working with the same pricing.

4 COMMISSIONER BROADBENT: Okay. I had one
5 question. Are most of these products, I mean most of these
6 projects connected to the grid or are they off or are some
7 of them off grid?

8 MR. CARD: Matt Card, Suniva. I can't say
9 with 100 percent certainty, but I can say to the best of my
10 recollection near 100 percent or virtually 100 percent of
11 our projects over the life of our country have been on grid
12 projects. They've ultimately been connected to the grid,
13 either behind the meter or on a roof feeding into the grid.
14 But they're not a stand-alone off grid project. That's
15 typically a different sort of panel.

16 COMMISSIONER BROADBENT: And who supplies
17 those panels?

18 MR. CARD: Many of the same manufacturers.
19 They also will have those product offerings. We have not
20 historically participated in an off grid project.

21 COMMISSIONER BROADBENT: How about Solar
22 World?

23 MR. MESSER: We've made off grid product, yes,
24 but it's been a fraction. It is such a very small niche of
25 the solar industry.

1 COMMISSIONER BROADBENT: So sorry. But for
2 the overall installed solar capacity, how much is off grid
3 roughly?

4 MR. MESSER: I wouldn't want to begin to quote
5 numbers. I would just be making them up. We can get that
6 to you.

7 COMMISSIONER BROADBENT: But just it's very
8 small, okay.

9 MR. MESSER: Very, very.

10 COMMISSIONER BROADBENT: Okay, and with all
11 the worries about the grid, that's not going up at all?

12 MR. CARD: Matt Card, Suniva. Off grid is
13 more characterized by developing markets than it is
14 necessarily the U.S. As soon as I said we haven't done one,
15 one of our very first projects in 2008 were off grid
16 projects for cell towers in India. They happened to use a
17 standard panel, but we powered 2,000 I believe is the number
18 of cell towers to replace a diesel generation set.

19 So they put in solar panels to power the
20 actual working cell towers. You see a lot of applications
21 like that. But the dominant application in the U.S.
22 connects to the grid.

23 COMMISSIONER BROADBENT: Okay, great. Did you
24 --

25 MR. MESSER: No. I was going to say there are

1 places inside the U.S. that do focus on the off the grid.
2 But again, it's a very, very small percentage and mostly I
3 would lovingly refer to them as preppers, where that's their
4 mind-set is to become independent from the grid. But it is
5 a very small portion.

6 COMMISSIONER BROADBENT: Okay, all right.
7 Let's see. This is on another topic, in addition to a
8 number of exits from the industry, there have been a number
9 of new entrants to CSPV product industry over the past five
10 years. What factors are causing these new entrants into the
11 industry?

12 MR. SZAMOSSZEGI: Andrew Szamosszegi, Capital
13 Trade. I think demand has been growing. There were orders
14 in place. There's excitement in the United States about
15 manufacturing in the green space. So I think that there are
16 also a lot of scientists who have backgrounds in this area,
17 who want to try starting a firm and helping to build the
18 firm.

19 I think there's been some access to capital.
20 People want to invest in it, and so companies have
21 gotten into the space, other companies have gotten out of
22 the space. Some companies have gotten in and not done so
23 well. So it's been tough because they face the same
24 problems that the firms here today have faced, which is
25 rising import volumes, declining prices in the market and

1 then they've had trouble earning money as well.

2 COMMISSIONER BROADBENT: Okay, thank you. My
3 time has expired, unless anyone else wants to --

4 CHAIRMAN SCHMIDTLEIN: Okay, thank you. Mr.
5 Stein, coming back to the question about the participation
6 in the utility segment, and I know you answered -- you gave
7 a fuller answer to Commissioner Williamson as well as you,
8 Mr. Card. Could you put on the record evidence of bids that
9 you've submitted for utility projects post-hearing?

10 MR. STEIN: Yes, we can. Juergen Stein, Solar
11 World. Yes, we can do that absolutely post-hearing.

12 CHAIRMAN SCHMIDTLEIN: Okay, and Mr. Card,
13 would that be possible for you?

14 MR. CARD: I believe so, but I'll be happy to
15 share the documentation behind the example I gave you.

16 CHAIRMAN SCHMIDTLEIN: Okay, that would be
17 great. All right. So I want to understand a little bit
18 more about how prices are set in this market, and what
19 impacts them. This is I think a large point for the
20 Respondents, that here, you know, they make the argument
21 about grid parity, raw materials and the incentive programs
22 at the federal, state and local level, which I mentioned.

23 So what I want to understand, and I'm not sure
24 if this is first a question for the lawyers is -- and maybe
25 somebody, a witness on the panel can answer this. Absent

1 imports, in your view do these other factors impact the
2 price of modules in the U.S.? In other words, I know you're
3 making the argument right now and I've read the brief that
4 when you look at the price of polysilicon it fluctuates, and
5 you don't see a correlation with the price of modules in the
6 United States, so forth and so on.

7 So my question for you is are you saying that
8 those factors never impact the price of modules here in the
9 United States, and I'm focused on those three?

10 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein.
11 I can start. No. I mean certainly these other factors play
12 some limited role. If raw material prices come crashing
13 down, that will have an impact. If there are federal
14 incentives or state incentives, that will have an impact,
15 and I would say there's very limited effect given the
16 interest in solar of other energy sources.

17 Our main point is that if you track the trends
18 in these three areas, there's no correlation between what's
19 happened with solar pricing and what's happened with natural
20 gas prices, what's happened with raw material and
21 polysilicon prices, and what's happened with government
22 incentives. The Commission and the staff looked very
23 carefully, gathered a great deal of evidence which is in the
24 prehearing report, to support all of those points and they
25 did in the prior investigations too.

1 They found polysilicon costs were increasing
2 and other raw material costs steady to increasing, while
3 solar prices were crashing in 2016, and the same for the
4 other factors as well.

5 CHAIRMAN SCHMIDTLEIN: So maybe one of the
6 witnesses can speak to this. Are purchasers aware of the
7 price of polysilicon? How is it that raw material costs are
8 translated in this -- into the price of modules when you're
9 negotiating sales?

10 MR. STEIN: For sure in a healthy market
11 environment, raw material costs have to have an impact on
12 the prices of the finished goods. Aluminum frames on the
13 module are fluctuating with aluminum on the stock market, on
14 the materials stock exchange.

15 So the same for silver paste. You're not
16 getting it cheaper because everything is different. It's
17 just following that market. But it's totally decoupled at
18 the moment from the module prices. That doesn't work with
19 polysilicon indexes. This doesn't work with silver indices.
20 This doesn't work with aluminum or name it.

21 So there is -- the buyers, our customers,
22 understand that there are raw materials in which are maybe
23 -- which are definitely not showing the trend we have seen
24 of pricing in 2016, but the pricing of cells and modules in
25 other raw materials is decoupled. That's the situation.

1 MR. SHEA: Steve Shea. Yeah, the buyers are
2 certainly aware of the prices of raw materials. For example
3 some of the commodities such as silver paste for screen
4 printing is priced according to the commodity price of
5 silver. But fluctuations in those values, particularly over
6 the last 18 months, have been trivial compared with the
7 variation in pricing at the product level.

8 So the price of the product has gone down in
9 2016 in some cases by 50 percent, whereas the underlying
10 cost to produce the product has either not gone down as much
11 or in fact has gone up. As Juergen says, the price of the
12 raw material, silicon particularly, stabilized in 2015 and
13 actually went up probably 20 percent in 2016 without really
14 impacting the overall cost of the product at all.

15 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein.
16 Yeah. Polysilicon prices are very transparent, and I would
17 just ask Shane whether he has any ability to increase prices
18 20 percent because polysilicon prices go up.

19 MR. MESSER: Shane Messer, Solar World. So
20 yes, the buyers are becoming very sophisticated. So all of
21 the data that is now available in the solar industry, we see
22 that polysilicon prices go up.

23 However, the pricing is reported by Greentech
24 Media, Bloomberg, a number of different sources inside the
25 industry and utility scale, large commercial, they are all

1 in receipt of that information as their project is getting
2 closer. So the pricing in the market does inform their
3 direction to try to renegotiate all the way to the very end.

4 CHAIRMAN SCHMIDTLEIN: Okay. Dr. Kaplan.

5 DR. KAPLAN: I just want to point out that the
6 decoupling has had the effect of causing so many firms in
7 the United States to go bankrupt and close. But this just
8 isn't a U.S. phenomenon. The record will show all the foreign
9 firms that have also gone bankrupt or closed because of this
10 decoupling, and the inability to operate without some kind
11 of permanent source of financing or refinancing.

12 Some of the firms that you see survived that
13 are in Asia, and have appeared before you have gone bankrupt
14 and then have been recapitalized again by state banks in
15 China. So I think the decoupling, you know, is a worldwide
16 phenomenon, and given the large amount of excess capacity
17 and the large amount of imports, it's the decoupling of
18 prices abroad that's forced the decoupling in the United
19 States, and particularly in the utilities sector.

20 That project that was just discussed is a
21 great example. The U.S. has to respond to foreign prices.
22 The foreign prices are decoupled, and the consumer just
23 cares about getting the lowest price irregardless of what
24 the costs of production are.

25 CHAIRMAN SCHMIDTLEIN: And how long has that

1 been occurring, that there has been a decoupling?

2 MR. KAPLAN: Well, the overcapacity and the
3 fact that firms have been going bankrupt has been going on
4 for years. There was some stabilization in the United
5 States that prevented the transmission of these foreign
6 prices and overcapacity by the dumping orders you put in
7 place, and you can see that in your pricing series and the
8 profitability of the domestic industry.

9 But once these new facilities were built or
10 firms relocated, then the overcapacity and the prices that
11 it caused were again transmitted to the United States, and
12 that's why we're here. The reason we're here has been
13 said in a dumping context and in a 201 context, is the speed
14 at which these facilities could be relocated.

15 As the witnesses have testified, it's a matter
16 of months, not a matter of years to relocate or build a new
17 facility.

18 CHAIRMAN SCHMIDTLEIN: Thank you. That raises
19 another question I had. You referred to the firms that have
20 gone out of business, and you have a slide in your slide
21 deck, Slide No. 8, which is the cumulative number on a year
22 by year basis. This is your slide deck, Dr. Kaplan. My
23 question is since we've been focused on the sharp surge in
24 imports in 2015, how should we consider these firms that
25 have gone out of business prior to that? Are they relevant?

1 MR. KAPLAN: I would say yes for two reasons.
2 One is they indicate that -- how competition occurs over the
3 Period of Investigation, what low prices and import surges
4 do. So both for your injury over the recent surge and your
5 information about threat into the future, the past is a
6 prelude to the future, and those closures.

7 They're from a legal perspective I'll let the
8 lawyers talk, about what counts as injury and what time
9 period you could look at. But as was said in the opening
10 statement, it's not about these two firms. It's about an
11 industry and you could look over a period, and in fact that
12 list is -- I don't know if it's just the ITC list, but we'll
13 be in touch with the staff because there were two more firms
14 that you didn't have in there that also closed. That's how
15 bad it's been. It's just you can't keep track of them all.

16 CHAIRMAN SCHMIDTLEIN: Do you all have any
17 specific information about any of these individual firms and
18 why they closed that you could put on the record?

19 MR. SHEA: Steve Shea. One of those firms was
20 Beamreach, the one I testified to earlier.

21 CHAIRMAN SCHMIDTLEIN: That's correct.

22 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein.
23 We probably have some of that information. We'd be happy to
24 do it in the post-hearing brief.

25 CHAIRMAN SCHMIDTLEIN: Okay.

1 MR. BRIGHTBILL: And I would say as a legal
2 matter, the Commission should consider the shutdowns from
3 any point in the period. That's certainly what U.S. law
4 requires. There's just this WTO gloss of recent, sharp,
5 sudden significance on the imports, and of course a need to
6 find that we are seriously -- presently seriously injured,
7 which is why we've highlighted the particular damage from
8 2016 and 2017.

9 So it's all relevant, but end of the period
10 and even post-period, what's happened in 2017 is also
11 extremely important to your decision.

12 CHAIRMAN SCHMIDTLEIN: Okay, thank you. I'm
13 sorry. Vice Chairman Johanson.

14 VICE CHAIRMAN JOHANSON: Thank you Chairman
15 Schmidtlein. I'd like to turn to the NAFTA arguments that
16 have been presented today.

17 There's been -- there's quite a bit in the
18 briefs about what the Commission should do with regard to
19 the NAFTA countries if it goes affirmative in at least the
20 first phase. Suniva argued in its prehearing brief at page
21 11 that the conversion of non-NAFTA cells into modules in
22 Canada or Mexico is not sufficient to confer NAFTA origins
23 to the modules.

24 Please respond -- hold on a second here.
25 Please respond to the position of Respondents that modules

1 assembled in Canada or Mexico from non-NAFTA cells are
2 deemed to originate from the NAFTA country where they were
3 assembled?

4 MR. PAYNE: Warren Payne, Mayer Brown. We'll
5 get into the back and forth of the changes in the NAFTA
6 proclamation since the implementation of NAFTA in detail in
7 our post-hearing. But I think for purposes of an immediate
8 answer to your question, I think there is some debate around
9 what the original rules in NAFTA permitted and required.

10 I think that's probably most important for
11 purposes of the Commission's analysis is what the statute
12 says. The statute in the 201 section "article." Article as
13 it -- our argument would be that article in the context of
14 the 201 statute means the like product and the like product
15 in this particular case is a module and cell, based on the
16 origin of the cell.

17 And as you heard discussion earlier, there is
18 no cell production in Canada and there is questions as to
19 the extent there is cell production in Mexico.

20 MR. McCONKEY: So Matthew McConkey, Mayer
21 Brown. Let me jump in with my colleague here. So that
22 means this product coming in from Canada for sure, and most
23 likely from Mexico. They're modules containing cells built
24 in other countries. Were the Commission not to cover those,
25 there's no question it would blow a hole wide open in any

1 type of relief we would get, because there's no question
2 that then Canada and Mexico would become conduits for every
3 cell manufacturer around the world.

4 MR. BRIGHTBILL: And just Tim Brightbill,
5 Wiley Rein. To put that in practical terms, perhaps Solar
6 World or Suniva could talk about the producers in Canada and
7 Mexico and their links to other countries, and how they
8 could circumvent.

9 MR. STEIN: What we see -- Juergen Stein,
10 Solar World. What we see out of Canada is the largest
11 supplier there, Canadian Solar, is not a Canadian company. It's
12 a Chinese company behind that. So at the end of the day, you
13 can bring imports to Canada and the same to Mexico. At the end of
14 the day, what I fear is what we have seen is that the supply
15 chain and the productions are moving around the globe.

16 So if we stop it from China, it moved to
17 Taiwan. If we stop it from Taiwan, it moved somewhere else.
18 If we have any places left, these production will move there
19 before we have not stopped any of these holes. This would
20 be ongoing and that is my biggest concern, that this
21 situation will not stop if we are not closing all these
22 loopholes.

23 VICE CHAIRMAN JOHANSON: Thank you for your
24 responses, and I look forward to reading whatever you all
25 have in the post-hearing, because this was, as you know,

1 discussed at length by the Respondents in their briefs, and
2 I was kind of left scratching my head. So any further
3 guidance would be appreciated.

4 What role does cost competitiveness with
5 substitute energy sources play in solar purchasing
6 decisions, and how important is grid parity in driving
7 demand in this market? What other factors drive demand?
8 One reason I'm asking this is this is just from my own
9 personal experience, from folks I know who impose let's say
10 solar panels on our homes.

11 It's not solely cost that drives their
12 decision to do that. They want to try to do their part to
13 improve in the environment. Could you all discuss this
14 whole issue for a second please?

15 MR. STEIN: Maybe I start. Juergen Stein from
16 Solar World and then everybody feel free to jump in. Grid
17 parity doesn't explain what happened to our industry. This
18 is decoupled. We are not seeing any relation to that one.
19 Grid parity, first of all, is different to different times
20 at different locations.

21 What we could not see is that there is any
22 correlation of volume or prices of solar compared maybe to
23 gas or oil. If we look at 2016, the year 2016 their lowest
24 price ever, of record installations solar, there is no
25 correlation if we compare that to other years before. So we

1 do not really see that correlation.

2 If we go on the incentive piece you said, I
3 mean at the end of the day the federal, mainly the ITC,
4 takes credit. It's the most important. That stays flat.
5 That stayed flat over the last month and years. But the
6 volume increased dramatically. All of the other incentives
7 on a state level was rather small up and down, so we cannot
8 explain it with that. So solar panel incentives and grid
9 parity do not really influence or create the demand that has
10 been strong in the last couple of months and years.

11 MR. SHEA: Yeah. Just on the subject of grid
12 parity, you know, recognize that grid parity is not the same
13 in all markets and in all parts of the world, right. It
14 varies tremendously geographically, and according to
15 regulatory issues and incentives. So for example what
16 constitutes grid parity in Hawaii is very different than
17 what constitutes grid parity in say New York State.

18 The actual motion of the module price over the
19 last 18 to 24 months really hasn't impacted the ability of
20 this product to achieve grid parity in those places where it
21 was already at grid parity. So that's not a factor really
22 in this discussion.

23 MR. SZAMOSSZEGI: Andrew Szamosszegi from
24 Capital Trade. The notion that grid parity in the United
25 States is affecting prices of solar panels worldwide does

1 not make any sense. So if prices are declining in the rest
2 of the world, it can't be because of grid parity in the
3 United States. It must be for some other reason.

4 Now I'm going to read from Sunpower's 10(k)
5 for 2016 to see what they put in their financial documents,
6 about what caused price declines in the latter half of 2016.
7 "Global solar cell and panel production capacity has been
8 materially increasing overall, and solar cell and solar
9 panel manufacturers currently have excess capacity,
10 particularly in China.

11 "Excess capacity and industry competition have
12 resulted in the past and may continue to result in
13 substantial downward pressure on the price of solar cells
14 and panels." So that's what is driving the price, not grid
15 parity in the United States. What about fossil fuel prices?
16 This is what J.A. Solar Holding had to say in its 20(f) from
17 2016 at page 12:

18 "Historically, high oil prices is one of the
19 key drivers for renewable energy." That makes sense, right,
20 I mean in the long term. "With the decline of oil prices,
21 the deployment of renewable energy may be affected, and
22 projects in the renewable energy space may be delayed or
23 even derailed. There are different voices on whether
24 renewable energy will have -- will be affected and the
25 extent of such impact, although companies in the renewable

1 energy sector, including us, have not, have not been
2 materially affect, and the extent of such impact of the
3 decline in oil prices we cannot assure you that renewable
4 energy will not be" in the future. I'm adding in the
5 future, "adversely affected."

6 So I don't think the companies and the
7 industry that produce solar panels really believe their own
8 argument.

9 VICE CHAIRMAN JOHANSON: Anyone else?

10 MR. BRIGHTBILL: Hi. Tim Brightbill, Wiley
11 Rein. Your question gets at, you know, there are a lot of
12 reasons why demand is strong. The fact is demand is strong
13 and growing, and that's why we think relief can be provided
14 to this industry and without harming that continued demand
15 in the future for solar, which has made the United States
16 the second largest market in the world.

17 VICE CHAIRMAN JOHANSON: Thank you for your
18 responses. My time's about to expire, so I will end there.

19 COMMISSIONER WILLIAMSON: Thank you. It's
20 been several years since Solar I and Solar II. Just
21 briefly, grid parity. We talked about it a lot last time.
22 But what is the definition real quick?

23 MR. SHEA: Yeah, just real quickly. Grid
24 parity is the notion -- Steve Shea -- grid parity is the
25 notion that the energy cost from renewable sources reaches

1 the energy cost of electricity from conventional sources.

2 COMMISSIONER WILLIAMSON: Thanks, I just --
3 another term that was used earlier, the feed in tariff from
4 China. What exactly is that and what role does it play
5 here?

6 MR. BRIGHTBILL: Tim Brighthbill, Wiley Rein.
7 China, it's basically the incentive that the government of
8 China has to incentivize solar installation in connection to
9 the grid in China. In other words, the price at which it
10 will pay or support for electricity and China made a
11 dramatic change to what it would support and the amount it
12 would support in the middle of last year, which as all the
13 analysts' reports showed was a key, had an immediate impact
14 in throwing additional capacity from China or that was going
15 to be installed in China into the rest of the global market
16 and into the United States.

17 COMMISSIONER WILLIAMSON: So it cut the rate as
18 to how much support they were going to give?

19 MR. BRIGHTBILL: Exactly.

20 COMMISSIONER WILLIAMSON: Okay. Thanks. First
21 was a report that the suppliers must meet certain
22 bankability requirements. Can you describe those
23 requirements? Do you agree that there are specific tiers of
24 suppliers in the U.S.?

25 MR. CARD: This is Matt Card from Suniva. First,

1 thank you very much for asking that question. There has
2 been a tremendous amount of very insulting coverage
3 particularly in the weeks leading up to this, over issues of
4 quality and bankability and the illusions or the inferences
5 that Suniva and SolarWorld don't build quality products,
6 don't build bankable products. The notion of bankability is
7 a term that was defined by Bloomberg New Energy Finance
8 several years ago.

9 I happen to have that document because I thought
10 that question might come up and I will read to you their
11 definition of bankability. Bankability -- where the project
12 using the solar products are likely to be offered,
13 non-recourse debt financing by bank, the key criteria for
14 tiering. Bloomberg has a set of criteria that says show me
15 a certain number of projects of a certain size, all financed
16 with non-recourse debt, meaning debt that's not backed up
17 with any assets.

18 They then go on to say, Bloomberg says, "this
19 classification is purely a measure of acceptance and there
20 are many documented examples of quality issues or bankruptcy
21 of tier I manufacturers." They follow that up with this
22 statement, again these are not my words, these are
23 Bloomberg's. "Since a tier I ranking is not a
24 recommendation we advise manufacturers against spending much
25 energy pursuing it."

1 So the notion is, what Bloomberg has done is
2 they've said for projects that require on-recourse debt and
3 non-recourse debt is a favorite technique of developers that
4 have essentially no assets. The project itself becomes the
5 debt mechanism. The argument is from Bloomberg's standards
6 which you had to produce a list of I believe six one and a
7 half megawatt projects of over a two year period that were
8 financed by five/six different banks with non-recourse debt.

9 The customers we chose to pursue as a business
10 growing we like to have credit-worthy customers, so we
11 looked at customers that were doing balance-sheet financing.
12 We looked at customers like the U.S. Government. We looked
13 at customers that were doing asset-based debt. We presented
14 a list to Bloomberg of forty-five projects all satisfying
15 the technical regulations and all being provided by
16 customers financed off of balance sheet, financed off of
17 their own, assume their own risk, weren't borrowing someone
18 else's money and let it default if it goes away and none of
19 those qualified because it wasn't a bank lending.

20 The notion of bankability is not actually a
21 statement about quality. It is a statement about whether
22 you can get a bank to loan you money and not have it backed
23 up. I would argue that borrowing someone else's money and
24 them having the risk of losing it is a little bit different
25 than putting your own money on the table. That is just me,

1 but I'm a bit believer in doing what you say.

2 Now going to the quality issue because I think
3 that's the heart of bankability, again I don't need to use
4 such polarizing words but I'm flat out offended by some of
5 the comments I read in some of the Respondents' briefs. I
6 see a brief I believe quotes a company by the name of
7 Depcom, to be very blunt and to try to be polite I'm sure
8 Depcom is a nice business. I'd never heard of them until I
9 read about them in SolarWorld and SEIA's brief.

10 They talk about Suniva not being a bankable
11 product, how they have never used Suniva products. They're
12 right. I don't know who they are and I have never sold to
13 them. I've similarly read products or comments in the press
14 over the last couple of weeks from Sunpower who disparages
15 Suniva's quality. Sunpower is a competitor. They make a
16 100 percent product outside of this country.

17 We've had fairly good success selling against
18 Sunpower. I actually should take it personally and I guess
19 in a negative way I probably should take it as a statement
20 of pride that they are so worried about our ability to sell
21 against them that they choose to insult us in that manner.
22 They are competitors I don't sell against. So we'll be
23 happy to provide the full document.

24 I just read you a couple highlights of the
25 Bloomberg standard. I think it does great job of explaining

1 this notion of a tier. It also does a fantastic job in
2 Bloomberg's own words at telling module manufacturers don't
3 spend a significant amount of effort getting on this list.
4 It does not really mean anything.

5 COMMISSIONER WILLIAMSON: Okay.

6 MR. MESSER: Shane Messer for SolarWorld. The
7 list he is speaking of, the Bloomberg bankability. If you
8 check back in history we've actually been included in that
9 quite regularly over the last couple of years. I mentioned
10 earlier one several different utility scale projects but one
11 particular developer we did over a 100 megawatts with so
12 they obviously thought we were quite bankable.

13 COMMISSIONER WILLIAMSON: Okay.

14 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein, and
15 to the extent that SolarWorld is no longer on that list it's
16 clearly evidence of the serious injury that is caused by the
17 surge of injurious reports.

18 COMMISSIONER WILLIAMSON: That was going to be my
19 question. One, whether or not Suniva and SolarWorld were on
20 the list, were they tier I or tier II and what has the
21 bankruptcy affected being off the list?

22 MR. BRIGHTBILL: Tim Brightbill. It's not the
23 bankruptcy. It's the harm that has been caused to them so
24 that has caused them to again, SolarWorld has been bankable
25 throughout the vast majority of this period and the fact

1 that whether it's not on the list anymore is just a sign of
2 serious injury.

3 COMMISSIONER WILLIAMSON: Because you're not
4 getting the projects that would get you onto this? Is that
5 basically what it is? Is that a correct characterization?

6 MR. BRIGHTBILL: That's it. There are some that
7 would choose not to make that offer. Yes.

8 COMMISSIONER WILLIAMSON: Okay.

9 MR. CARD: I'm going to follow up with that with
10 the reason why we aren't getting those projects that would
11 qualify for the list is we are not currently manufacturing.
12 As the example I used for you earlier, prices have driven to
13 a level where it is not economically responsible to produce.

14 COMMISSIONER WILLIAMSON: Okay, thanks. That's
15 all. I wanted to clarify that. The thing that would be
16 helpful I guess that would be in post-hearing, how much
17 domestic production do we have say this quarter and next
18 quarter. Our Staff Report for the U.S. Energy goes to 2016.
19 A lot's happened this year and I'm curious how much
20 production is there for the year? How much production has
21 there been in this quarter or the next quarter? Third and
22 fourth quarter. So post-hearing this might be helpful, just
23 sort of give us a picture of where we are right now. Thank
24 you.

25 MR. BRIGHTBILL: Tim Brightbill. We will do that

1 in the post-hearing brief but obviously SolarWorld still is
2 producing and could quickly ramp up and produce back up to
3 its full capacity.

4 COMMISSIONER WILLIAMSON: Okay, thank you. Which
5 would be of the legal significance of any of the existing
6 dumping and countervailing duty orders in this safeguarding
7 investigation? I guess the Taiwanese, do you agree with
8 their statement that the Taiwanese are making that Taiwan
9 cannot be contributing to any threat of injury to the U.S.
10 because it is important to the subjects of the AD/CVD order,
11 or the AD order?

12 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein. I
13 will address that in the post-hearing brief but again you're
14 considering a global import surge and whether that global
15 surge is a substantial cause of serious injury so we will
16 address it with respect to individual countries in the
17 brief. I think as Dr. Kaplan pointed out the other
18 significance of the trade case is it shows the natural
19 experiment that this industry was improving. When it had a
20 respite from the dumping and the subsidies it came back.
21 SolarWorld was profitable and then things fell apart again
22 in 2016.

23 COMMISSIONER WILLIAMSON: You just can't play
24 whack-a-mole fast enough?

25 MR. BRIGHTBILL: It's difficult to do. This is a

1 very competitive industry, production is extremely mobile
2 and SolarWorld has brought and won two dumping cases and
3 subsidy cases but a different solution is needed absolutely.

4 COMMISSIONER WILLIAMSON: Okay, thank you.
5 Commissioner Broadbent?

6 COMMISSIONER BROADBENT: Mr. Brightbill, what do
7 we do long-term about the overcapacity in China? What would
8 you advise the government?

9 MR. BRIGHTBILL: Commissioner Broadbent. That's
10 a great question. I know you have asked similar questions
11 with regards to other major industries where capacity is
12 dominant such as steel. There is no short-term answer to
13 that issue. I think the precedent in a remedy phase is
14 empowered to take a variety of actions that could help
15 address the issue just as there have been a variety of
16 multilateral actions on the steel front to try and address
17 steel overcapacity from China and elsewhere.

18 But because that will be a long-term process and
19 because of this race to the bottom or death spiral that Mr.
20 Stein mentioned there has to be something in place to
21 preserve domestic manufacturing while we figure out what to
22 do about the broader problem. Unfortunately it's a problem
23 that is getting worse. The overcapacity is getting greater
24 not lesser in the major market. China is flattening out and
25 as you saw from the headlines there are no other countries

1 coming in to absorb that overcapacity in the short or
2 near-term, or long-term.

3 COMMISSIONER BROADBENT: I'm not sure you
4 answered my question.

5 MR. BRIGHTBILL: I'm not sure I have an answer as
6 how to address overcapacity in this market or in the steel
7 market but --

8 COMMISSIONER BROADBENT: You described another
9 problem.

10 MR. BRIGHTBILL: Yes. Again I think we're going
11 to put forward an adjustment plan and we will put forward
12 remedy recommendations and some of those will include we
13 would like to include ways to try and address this broader
14 problem. So we need relief while the broader problem is
15 fixed.

16 COMMISSIONER BROADBENT: Was China's move to
17 reduce their feed-in tariff in any way trying to help cool
18 things down there and reduce some of the overcapacity?

19 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein. I
20 don't think it was tied to overcapacity. We could try and
21 provide some information in the post-hearing brief or unless
22 anyone else has any information on what the government. I
23 don't really want to speculate on what the Government of
24 China was doing with that change in its feed-in tariff.

25 COMMISSIONER BROADBENT: Mr. Card?

1 MR. CARD: Matt Card, Suniva. Certainly the
2 Chinese should speak for themselves. I would argue that if
3 their intention were to rein in overcapacity they would not
4 have reinitiated the feed-in tariff in 2017. In 2017 the
5 feed-in tariff developed again but even still, even during
6 the reduction of feed-in tariff if that was the message to
7 the Chinese Government to their manufacturers, their
8 manufacturers weren't listening.

9 We've heard the numbers this morning. This year
10 China will grow their internal capacity 25 percent, 60
11 gigawatts. We can debate whether China's 30 or 32 or 35 but
12 we can't debate China's not 60 gigawatts of capacity and
13 that's where this will be. Likewise we can look at the
14 numbers in Vietnam, Thailand, Malaysia, Singapore. Vietnam,
15 Thailand, countries the size of Nebraska now have more solar
16 manufacturing capacity in the United States. Their demand
17 profile is not that and that product is coming here.

18 COMMISSIONER BROADBENT: Okay, so just remind me
19 again what the Chinese did. They reduced their feed-in
20 tariff in mid-2016 and then raised it again to the same
21 amount?

22 MR. BRIGHTBILL: I'll speak in generalities
23 because I'm not an expert in their law but I don't know
24 whether it was reduced or suspended for the second half of
25 2016 but then it started over in basically a new plan year

1 would be the way I think about it in 2017.

2 COMMISSIONER BROADBENT: Okay.

3 MR. BRIGHTBILL: So they are re-incenting the
4 implementation.

5 MR. SHEA: If I may, Steve Shea. My
6 understanding is that they capped the feed-in tariff in 2016
7 in response to some internal conditions that I'm not aware
8 of and then reinstated it in 2017.

9 COMMISSIONER BROADBENT: Okay, so they haven't
10 made any public statements about trying to reduce
11 overcapacity?

12 MR. BRIGHTBILL: Not that I'm aware of and may I
13 say too that this end of the PV industry in general
14 worldwide, although we're now in the billion dollar range is
15 still a new and fairly small industry with an enormous
16 growth potential through the remainder of this century
17 that's grown typically, you know, double digits
18 year-over-year growth for the last 35 or 40 years so if
19 people just stop building at the pace they're building the
20 industry will grow into their capacity in a fairly short
21 period of time.

22 MR. STEIN: Maybe one addition --

23 COMMISSIONER BROADBENT: Yes.

24 MR. STEIN: I'll add that at the end of the day
25 it's the central government decision to say that we're going

1 to have that 30 gigawatts in the next year 33 and what we
2 have seen was the plan in 2016, which should be in the range
3 of 25 to 28 gigawatts because of the decentral state systems
4 at the first half of 2016, China was already at 20 gigawatts
5 so even it was central plan to have the 25 to 28 we have
6 seen that this didn't work out in 2016 so the first half was
7 much stronger. Then there was a decision to
8 say okay and now we are not allowing new projects except
9 then less than 10, which were coming in the second half.
10 That has the influence and that was my understanding of how
11 that works in China.

12 COMMISSIONER BROADBENT: Okay, alright.

13 Back on the earlier of the decoupling of
14 the raw material prices to pricing of the cells
15 and modules, I guess I am not looking at the Staff
16 Report. I'm looking at Figures 5-9 and 5-3 and
17 in 5-3 you see the price of Poly-6 silicon and custom wafers
18 falling substantially over the POI and the same happening to
19 the cells and the modules. I didn't know what you meant by
20 the decoupling. I was just not following that.

21 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein. As
22 we said raw material costs do play a role but there are
23 clear periods within the Period of Investigation and even
24 shown on this chart where I mean this is just poly and
25 wafers but where module prices and cell prices do not move

1 in the same direction or with the same trends as
2 polysilicon prices. We put those in our brief. Suniva put
3 those in their brief so the two were not related and it
4 became increasingly not related toward the end of the Period
5 of Investigation.

6 MR. STEIN: Juergen Stein from SolarWorld. Maybe
7 to explain what we see on the markets, here we have seen I
8 think the chart of monowafers, there we talk about two
9 different technologies. Mainly the one is a poly and the
10 other is a mono technology, all uses the same polysilicon.

11 COMMISSIONER BROADBENT: Right.

12 MR. STEIN: But these are two different
13 technologies, monowafer and this is here the chart is on
14 wafer, monowafer and polywafer are decoupled from the
15 polysilicon pricing so while monowafers are still on the
16 high, high level and were rising polywafers because of the
17 overcapacity in China and China was mainly coming out of
18 poly products going down more or less every quarter.

19 So even if the same raw material goes into the
20 wafer, these two products developed over different times and
21 totally differently just depending on the demand and the
22 oversupply. So on the mono side, we don't have that strong
23 oversupply in the wafers, while poly there is so
24 this I'm not sure if I could read that out of that chart but
25 as an explanation between the different production steps and

1 the different technologies from polysilicon to the modules
2 there is also decoupling between these different steps and
3 technologies.

4 COMMISSIONER BROADBENT: Okay. Can you guys
5 discuss sort of the independent module producers and this
6 whole, their whole role in the supply chain and in the U.S.
7 Industry? My understanding is based on the availability of
8 cells domestically they are having a really hard time. Most
9 of the cells that you all produce when you are producing are
10 consumed internally. Basically independent module producers
11 are forced to rely on the international market to survive.

12 MR. CARD: Matt Card, Suniva. I'll answer this
13 first and then I think probably Dave McCarty would want to
14 answer as well since he is one of those. One of the driving
15 reasons why we expanded our cell manufacturing capacity in
16 Atlanta, you're correct. Many of our cells were going into
17 our own modules. We went through a tripling of our capacity
18 and part of that was to address the needs of the IPPs, the
19 independent module producers IMPs in the U.S. Market.

20 For instance, Dave's company has qualified Suniva
21 Cell and was prepared to start buying Suniva cells for its
22 modules as opposed to foreign supply until I called him and
23 said "Dave, we're bankrupt." There are other conversations
24 that I am certainly not at liberty to share in this room of
25 other independent module producers in the states where we

1 have done the same thing.

2 So part of our, we've tried to walk the walk if
3 you will and not just talk the talk. We've tried to grow
4 the parts where we add value to the supply chain not only
5 for our other business but other parts of the supply chain
6 here domestically.

7 MR. MCCARTY: Dave McCarty, I-Tech. Exactly what
8 Matt is saying. We had qualified their cells currently on
9 our bill of material but it's not available for us to
10 purchase so we do purchase 100 percent of our cells that we
11 use from foreign supply. Same thing has happened across the
12 rest of the supply chain. A year ago we could source almost
13 everything. There was a glass supplier that was trying to
14 start up and they could not secure enough business to
15 operate at a price-competitive level.

16 SKC recently informed us they were no longer
17 producing in the United States. They mentioned Sabal Trail
18 which is another former supplier of ours. Olbrich which
19 also closed their doors in Oregon, another supplier of ours
20 that are forcing our entire supply chain to go offshore
21 increasing our cost of producing and tying up cash that
22 could be otherwise used for capital expenditures.

23 COMMISSIONER BROADBENT: Okay, thank you. My
24 time has expired.

25 CHAIRMAN SCHMIDTLEIN: Okay, thank you. I have a

1 few questions left here. Going back to the utility sector
2 and your participation in that sector, in your experience do
3 they request multi specifically or mono specifically in
4 their requests for bids?

5 MR. MESSER: Shane Messer, SolarWorld.
6 Typically, no. They don't. They don't come and ask for
7 just mono or just multi. Typically it is price-based.
8 There is some power comparisons that will run but they look
9 at the long-term power that can be produced by either
10 product but typically it is more price sensitive than it is
11 product sensitive.

12 CHAIRMAN SCHMIDTLEIN: So do they request a
13 specific number of cells per panel? In other words, 72
14 versus 60?

15 MR. MESSER: No, not by the typically by the
16 purchaser. The builder would want a 72 cell product that
17 would mean then less labor, less BOS balance of system, less
18 touches so that is -- ten years ago the 72-cell product
19 didn't really exist on the market. It's only been in the
20 last probably five years that it has really begun to gain
21 acceptance and preference in large scale installations
22 because of this labor savings.

23 CHAIRMAN SCHMIDTLEIN: So would you say that
24 60-cell panels compete with 72?

25 MR. MESSER: Shane Messer, SolarWorld. Yes. If

1 you look actually in Europe 60-cell is still the predominant
2 utility scale product but then the pricing that we talked
3 about earlier now that has come through the entire industry
4 based on utility scale pricing, then impacts the 60-cell
5 pricing as well.

6 CHAIRMAN SCHMIDTLEIN: Okay, so maybe I missed
7 that earlier. In your view the utility pricing affects the
8 other segments of the market.

9 MR. MESSER: It has. That's been over the last
10 few years of recent occurrence, 7 or 8 years ago. Pricing
11 inside the solar industry was segmented. You could go price
12 a utility scale project and you could keep your residential
13 pricing separate but over the last few years it has merged
14 into much more transparency at all levels.

15 CHAIRMAN SCHMIDTLEIN: Okay, and that's because of
16 -- how did that happen? Can you talk about that a little
17 bit?

18 MR. MESSER: You know, I don't really know
19 exactly how it happened other than it just began to happen.
20 People would have excess inventory and then they would start
21 talking to installers about any kind of shipments that they
22 could get in I think was probably the impetus. But there is
23 no one time that I can recall in the past five years that I
24 go oh well that's when it happened; it's just begun to
25 develop to where now it's pretty much standard.

1 CHAIRMAN SCHMIDTLEIN: And that's because people
2 are talking to each other. There is not a published --

3 MR. MESSER: No.

4 CHAIRMAN SCHMIDTLEIN: Set of prices or a book of
5 prices or anything like that like we've seen in other
6 industries.

7 MR. CARD: Matt Card Suniva. I would agree with
8 what Shane says but I would modify that slightly. I think
9 there is a direct correlation between the interchangeability
10 of price and the overcapacity of product. Put very simply
11 in non-elegant terms as always with this much overcapacity
12 there is always someone willing to sell you something for
13 less and so you can really make an equation that if
14 manufacturer X has 40 extra megawatts of 60-cell products
15 that he is holding and needs to get rid of he may very well
16 offer that at such a price point then when you do that
17 power-price comparison.

18 A 60-cell product is more efficient for your
19 utility scale project. Similarly with a 72-cell products,
20 you're seeing them filter more and more and do things like
21 commercial and industrial roof tops for the same factor.
22 The larger overcapacity gets, very simple law of the jungle
23 is there is someone else willing to go lower.

24 CHAIRMAN SCHMIDTLEIN: Okay.

25 MR. STEIN: Chairman Schmidtlein, may I come back

1 to the question, Juergen Stein, so we will come back to the
2 question of mono and poly and is that something which is
3 really interesting for the customer. I have to say it
4 cannot be interesting for the customer. At the end of the
5 day our products produce energy so interesting is how much
6 energy do I get out of a square foot? That's the
7 interesting question and that also influences the costs I
8 have to add for mounting and cabling and so on and labor
9 later on for assembly.

10 I just want to point that out that the
11 monotechnology which we have and which we have developed is
12 the smarter technology. We came up with that very early.
13 SolarWorld has been the first producer of Mono and then
14 Mono PERC which is then the even better solution which is a
15 kind of turbo on top of that. Suniva has the same
16 technology. I think everybody is in agreement right now
17 that Mono PERC technology is the best technology on the
18 market power compared to cost.

19 So it's not the point of maybe picking a wrong
20 technology. What we see here we have the best technology
21 and we see that many, many Asian competitors are joining as
22 we see that the fastest growing competitors from China,
23 Longi is 100 percent focusing on Mono PERC products and this
24 is also very successful with that. So it's not the question
25 of technology we have seen here. It's really the question

1 of the overcapacity and the products floating into the
2 market. I just want to make that clear on the difference of
3 the technologies. Thank you.

4 CHAIRMAN SCHMIDTLEIN: So would you say globally,
5 is that a small percentage that's moving to mono? Because
6 when you look at the pricing products, obviously you see the
7 imports are mostly concentrated in the multi--

8 MR. STEIN: Juergen Stein, SolarWorld. This is
9 what we see. The market in Asia came traditionally out of
10 multi, and that is the biggest part of the capacity we see
11 right now. And that is the reason that this huge capacity
12 flows in multi technology. Everybody who is right now
13 investing and looking for the smarter technology is changing
14 or building up new capacity mainly in mono. So that is a
15 trend in the market we can see.

16 We know that from Singapore, having 100 percent
17 poly, but also to go into the mono piece. We know that in
18 Korea a competitor is 100 percent more or less focusing on
19 multi and tries to get into the mono piece. So that is a
20 change we can see right now. But the old capacity which is
21 there and was built up was mainly on poly, and that flows
22 into our market. It's not the better technology.

23 CHAIRMAN SCHMIDTLEIN: Okay. Alright, thank you.

24 MR. CARD: Matt Card, Suniva. I'd like to add--

25 CHAIRMAN SCHMIDTLEIN: Sure.

1 MR. CARD: --one thing to what Juergen said,
2 because an interesting dynamic has come out of this.
3 Juergen is exactly right. Most of the new capacity that's
4 continuing to grow is being touted both anecdotally and in
5 some of the things you saw today as mono/mono perc. It's
6 created an interesting situation that I'd like to describe
7 as you can't have your cake and eat it, too, phenomena.

8 One of the very interesting and confusing
9 comments that our opposition has made historically has been
10 companies like Suniva and SolarWorld can't compete because
11 we've chosen mono technology and the world's on multi.

12 But then in this very hearing you will also hear,
13 but they haven't innovated. So I don't know how you can say
14 that we've either not competed because we chose leading edge
15 technology that the market grew into, and say we did not
16 innovate because we chose leading edge technology the market
17 is now growing into.

18 It's absolutely you can't have your cake and eat
19 it, too. To Juergen's point, we're both sitting here--
20 Suniva's sitting with a 450 megawatt mono perc cell factory
21 in Georgia that I very much would like to run. It's the
22 technology that everyone on the planet is moving towards.

23 But you can't buy the argument that these
24 companies fail because they're incompetent; they didn't
25 innovate. It doesn't explain a 450 megawatt mono perc

1 facility that everyone else wants to move towards in that
2 scenario.

3 CHAIRMAN SCHMIDTLEIN: Okay. But that's a little
4 bit of a segue into my next question, which is: Can you
5 respond to the argument that the Respondents make that the
6 U.S. producers have not been injured because they were able
7 to increase production--U.S. shipments, capacity, capacity
8 utilization over the POI?

9 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein. Just
10 to start, all you have to do is compare those very, very
11 modest increases, many of which disappear in 2016 or 2017 to
12 the explosion in demand of 350 percent over the last five
13 years, and you see it in market share.

14 U.S. market share was very, very, very low at the
15 start of the period, and it's even lower today. That's
16 injury. And that's serious injury. And the imports are the
17 substantial cause of that.

18 CHAIRMAN SCHMIDTLEIN: Were the U.S. producers--
19 would you have raised prices, given the big increase in
20 demand over the POI? Is that a part of your argument, that
21 you were unable to raise prices?

22 MR. BRIGHTBILL: Tim Brightbill. I'll let the
23 companies answer, but no one--solar is a dynamic industry,
24 so my sense as a trade lawyer is that prices are not
25 increasing. But if we had stabilized prices for a time

1 period, that that would be enough. And then the volume from
2 demand would make these companies successful and profitable.
3 And that's what you saw with SolarWorld. They were
4 profitable in 2015 and early 2016, and it wasn't by raising
5 prices. They weren't able to do that. They just were able
6 to recapture some of the market and to stabilize prices for
7 awhile.

8 MR. CARD: Matt Card, Suniva, and there's several
9 comments to make. But Tim's exactly right. When you asked
10 that question--and I apologize if you saw kind of a
11 quizzical look on my face. I've been selling products in
12 this market for nine years, and what I was literally going
13 through is: When's the last time you raised prices?

14 And in nine years, I don't think we've ever
15 raised prices. So that's statement number one. To Tim's
16 point, prices did stabilize for awhile over '15, and I would
17 actually tie that back to it's some of the same statements
18 our economists made, but it's a direct correlation to the
19 work this Commission's done.

20 When we looked at the start, investigating our
21 expansion, raising the funds for that expansion, starting
22 that expansion, over the course of 2015, prices had
23 stabilized. They were stabilized enough that it gave us--
24 and you saw the trends where people were moving towards
25 profitability.

1 What the action that occurred, was not that it
2 was the wrong action but it wasn't necessarily the full
3 complete set of tools. What clearly happened was a
4 relocation period. And as we came out of that expansion
5 that was encouraged by the successful results of your
6 tariffing actions in 2014, relocation had occurred and
7 prices plummeted again.

8 So the tariff action by a very what I call a
9 surgical strike, if you would, did not kill the virus. The
10 virus multiplied in spades, right? You went in the first
11 gen with a multiplication of one. Your first issue was
12 China. And then the second tariff action that was brought
13 was a multiplier of one to Taiwan. Over the intervening
14 months after that tariff, it was a multiplying factor of 5,
15 of 6. It was almost like, oh, you got us in Taiwan. Let's
16 see if you can get us now. We're going to Vietnam. We're
17 going to Thailand. We're going to Malaysia. We're going to
18 Singapore. We're going to streamline product through
19 Mexico. We're going to streamline product from Canada.
20 Don't bring antidumping against each of those guys.

21 So, you know, while I can't remember prices going
22 up, I can certainly remember prices stabilizing. And it did
23 encourage growth in the U.S. But as soon as the work-around
24 started taking effect, if you looked at the numbers, '13 and
25 '16 were within a couple percentage points. It was as if

1 they never existed.

2 MR. SHEA: Steve Shea. I'd just like to add that
3 I have never seen a solar business plan that anticipated
4 prices going up in my history.

5 CHAIRMAN SCHMIDTLEIN: Okay.

6 MR. SHEA: And all of the research and engineering
7 that these companies go through is aimed at increasing the
8 performance of the product and reducing the cost.

9 CHAIRMAN SCHMIDTLEIN: Right. That's what I
10 assumed. It was maybe a long way of asking whether price
11 depression was a part of your argument.

12 But I'll come back to you, Dr. Kaplan, in my next
13 round, since my time has expired.

14 Vice Chairman Johanson.

15 VICE CHAIRMAN JOHANSON: Thank you, Chairman
16 Schmidtlein.

17 Sticking on the issue of price, how do the price
18 comparisons on this record support an affirmative
19 determination? In terms of quarterly comparisons, are the
20 data more mixed than you would have anticipated?

21 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein. The
22 price comparisons do support an affirmative determination.
23 You've got under-selling in a majority of comparisons, and
24 even greater when you measure it by volume, which you
25 should.

1 I do think the pricing products are different
2 than they were in Solar 1 and 2. The ranges of wattages
3 were broadened a little bit, and that may account for some
4 of the distortion.

5 I don't think there's any question in the market
6 from anybody in this room that the U.S. product is being
7 under-sold by imports and by substantial margins.

8 So you do see it in the data, but I think it's
9 understated in the data compared with industry reports and
10 other knowledge of pricing in the marketplace.

11 VICE CHAIRMAN JOHANSON: What should we make of
12 the fact that foreign-origin product was priced higher in 32
13 out of 67 comparisons?

14 MR. BRIGHTBILL: Again, Tim Brightbill, Wiley
15 Rein. I think there are--first of all, there are individual
16 country issues there, but again I think the data, because of
17 the pricing product ranges, is not ideal for perfect head to
18 head comparisons which would have shown even more
19 under-selling. But there's plenty of under-selling on this
20 record to support an affirmative determination.

21 VICE CHAIRMAN JOHANSON: Yes, Mr. Szamosszegi?

22 MR. SZAMOSSZEGI: Andrew Szamosszegi, Capital
23 Trade. I think the product--product one is a cell product,
24 right? It's very thinly traded. So if you look at the
25 numbers there, I mean the volumes are small, and there are a

1 lot of zeroes and things like that. It's not really
2 indicative of competition in the module market.

3 We've heard testimony that there is competition
4 between mono and multi. So the natural thing to do would be
5 to take products with the same power characteristics and
6 combine multi and mono. And you can do that by I think 2
7 and 3, and 4 and 5. And if you combine that and run your
8 under-selling comparisons, you get 100 percent
9 under-selling.

10 So I think again the record, if you take out
11 product 1 with products 2 and 3 combined and 4 and 5
12 combined, you get a clear picture of under-selling and the
13 price declines that were experienced here and overseas as
14 well.

15 VICE CHAIRMAN JOHANSON: Thank you for your
16 responses. I'm going to touch on the issue of unforeseen
17 developments. I think that's something that we should
18 probably have on the record.

19 When analyzing unforeseen developments, whose
20 position is relevant? Should it matter whether the
21 negotiators did not foresee the development? Whether the
22 domestic industry did not foresee a development? Or some
23 other entity did not foresee the development?

24 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein. It's
25 not defined in the law. And so I think the Commission has

1 some discretion there. Of course U.S. law doesn't--it was--
2 when the Safeguards Agreement was negotiated, it was widely
3 anticipated that the Safeguards Agreement trumped Article 19
4 and actually removed the unforeseen developments'
5 requirement entirely. Unfortunately, the WTO and appellate
6 body read that requirement back in.

7 We have laid out unforeseen and unforeseeable
8 developments in our prehearing brief, and in particular we
9 flagged the dramatic expansion of state-run production
10 capacity. And the Chinese industrial policy and state
11 support is an unforeseen development.

12 Related to that I think the response of other
13 countries, an uneconomic death spiral kind of response is
14 also unforeseen development. And the ability to shift supply
15 chains and relocate is also an unforeseen development.

16 So we can address in the posthearing brief whose
17 job it is to foresee or not foresee, but we think the test,
18 should the President require it to make a determination, or
19 should the Commission be asked to recommend, there are
20 unforeseen developments that exist in this market.

21 VICE CHAIRMAN JOHANSON: Thank you, Mr.
22 Brightbill. And that concludes my questions. Thank you all
23 for appearing here today.

24 CHAIRMAN SCHMIDTLEIN: Commissioner Williamson.

25 COMMISSIONER WILLIAMSON: Just a small question.

1 Mr. Yang, the product you make is the thin cell. Is that
2 within the scope of this investigation?

3 MR. YANG: I'll defer comment on that to Wiley
4 Rein, but I believe that technically under the scope of the
5 investigation thin-film panels are not included because
6 they're distinctly different technology than crystalline
7 silicon cells.

8 You know, I think we did feel it was important to
9 add the commentary, because within the framework of the
10 solar market thin-film and crystalline panels are generally
11 fairly interchangeable because they offer the same power
12 generation properties and they can both be installed with
13 fairly similar system components.

14 COMMISSIONER WILLIAMSON: Okay. Since you haven't
15 had a chance before, are there any other comments you might
16 want to make about what we've discussed that might be
17 helpful here? We got your testimony, but I just wanted to
18 give you the opportunity.

19 MR. YANG: You know, I would just reemphasize on
20 some of the comments that were made about the market, you
21 know, sort of the extreme importance and momentum of price.
22 You know, I think that even as competitors to these
23 companies we've gone head-to-head against them a lot on
24 deals, but I would have nothing negative to say about their
25 quality or any other aspect of their business. I think in

1 reality most of the purchasing decisions that are made by
2 the people in this room on the developer side really boil
3 down to price, and I think a lot of these other comments
4 that have been made were sort of surprisingly negative
5 aspersions that I think are ultimately not relevant to the
6 case.

7 I think, you know, the cause of a lot of this,
8 like i said, is sort of economic force from China really
9 driving large-scale manufacturing and over-capacity, and I
10 think like the crystalline producers, thin-film producers
11 like FirstAlert and ourselves have felt that. So I think
12 that's probably the overlying theme we'd like to impart to
13 you, is that really at the end of the day there are a lot of
14 different comments that have been made on both sides about
15 different factors in the market, different cell
16 technologies, but ultimately this is an issue of supply and
17 demand and it's an issue of price. And I think the
18 companies at this table, whether they're thin-film or
19 crystalline, have all been to some degree the victim of
20 over-supply and under-pricing.

21 COMMISSIONER WILLIAMSON: Okay. Good. Thank you.
22 No further questions.

23 CHAIRMAN SCHMIDTLEIN: Commissioner Broadbent.

24 COMMISSIONER BROADBENT: Yes, this is for Mr. Card
25 from Suniva. Earlier this morning I think Mr. Nicely

1 mentioned, or alleged that Suniva opted to export cells to
2 China for module assembly that were re-imported back into
3 the United States. And then after the AD/CVD remedies were
4 imposed, reorganized how they were doing business.

5 What was going on there at the time they were
6 exporting cells to China for module assembly?

7 MR. CARD: Absolutely--Matt Card, Suniva. Thank
8 you for asking that question, because the characterization
9 this morning was a characterization of some very untoward
10 behavior.

11 What's important to understand is Suniva's
12 heritage. Suniva developed as a cell manufacturer. When we
13 sold our cells, if you go back to 2008-2009, we were a very
14 good cell manufacturer. We sold most of our cells as
15 exporters.

16 In 2010 we were named by Exim Bank the Export
17 Import Bank of the United States, as its exporter of the
18 year because our cells were used all over the world in other
19 people's modules.

20 That led us to about that same time frame to
21 begin to look at getting our own line of modules. In the
22 early days of our module production, we in fact exported our
23 cells to contract manufacturers in various locales, whether
24 those were Asia, whether those were Canada, or India, or
25 other places, to not only make their modules but to make

1 modules for us.

2

3 As we continued to mature our business model, we
4 absolutely and very deliberately entered the module
5 manufacturing business here in the United States. In 2014,
6 we created our own module manufacturing facility in Saginaw,
7 Michigan. It made a tremendous amount of our residential
8 product, and we continued to utilize what we thought was a
9 fair trade and a globalist model of continuing to engage
10 companies both here at home and abroad by--not China at that
11 point, but by that point all of our manufacturing was in
12 North America, to manufacture modules.

13 As we continued to grow our business model, part
14 of our business model includes, as I talked about, selling
15 cells. We look to sell our cells to independent module
16 producers here in the U.S. We'll look to a world that wants
17 to participate as a fair trading partner with the U.S., and
18 we'll continue to make our own line of modules.

19 So, yes, we've made modules. We've sold to
20 foreign entities to make modules for them to sell under
21 their brand. We've made--we've sold cells, or contracted
22 manufacturing outside the country. We've built facilities
23 inside the country. It's all part of a continuing, evolving
24 business model to be competitive in the market.

25 MR. McCONKEY: And Matthew McConkey of Mayer

1 Brown. I also showed this, also, the business model that
2 was a prior business model before they started doing their
3 own module manufacturing, shows that not all the
4 domestically produced CSPV cells were internally consumed,
5 which was another allegation that had been raised.

6 COMMISSIONER BROADBENT: Okay. Alright, let's see
7 what else I have here. This is on a different topic for
8 SolarWorld and Suniva.

9 Yesterday, or today I guess maybe, the President
10 signed a Presidential Memorandum asking USTR to investigate
11 China's laws, policies, practices, and actions that may be
12 harming American intellectual property, innovation, and
13 technology.

14 Can you discuss any problems you have had with IP
15 violations or Chinese indigenous innovation policies?

16 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein.
17 SolarWorld, it's well known that SolarWorld was a target of
18 Chinese hacking in the past, and that there was an
19 indictment of People's Liberation Army for hacking of six
20 U.S. companies, SolarWorld Americas being one of them.

21 So it's a serious concern and a great concern for
22 us. Beyond that, we should just point out it is a serious
23 concern. We welcome the action of the Trade Representative
24 to try and address this problem for every one company that
25 has been--is known as a target. There are hundreds of

1 others in this industry and others.

2 COMMISSIONER BROADBENT: Suniva?

3 MR. CARD: Matt Card, Suniva. I'm not aware if
4 we've suffered the same fate that SolarWorld has suffered,
5 but I'll certainly find out if we've been hacked as well.
6 It speaks more, and it's anecdotal and it speaks to the
7 cavalier nature of maybe some of our competitors.

8 About four years ago we were alerted to a Chinese
9 solar manufacturer's website. They said, you should go look
10 at it and take a look. I went to the website and there was
11 a picture on the cover page that was eerily familiar. It
12 was a picture of our founder, Dr. Ajit Rahaki, holding a
13 solar cell. It happened to come from Suniva's website.
14 Ajit Rahaki is known as one of the three or four top PV
15 scientists in the world. They had superimposed a Suniva
16 cell in Dr. Rahaki's hands with a picture of their own and
17 were proudly displaying Ajit Rahaki technology on their
18 website.

19 I'm not sure whether that's intellectual property
20 theft or--Ajit's not a handsome man so I wouldn't say it's
21 photographic property theft, but it speaks to a
22 no-holds-barred cavalier attitude that you would go take
23 someone's founder, a very well known scientist, and you
24 would put him on your website representing them as the
25 founder of your product.

1 That was amazingly resolved without an
2 international incident, but...

3 COMMISSIONER BROADBENT: Okay, this is for
4 SolarWorld. According to the public warn notice, which is
5 in our records, SolarWorld announced massive job cuts this
6 summer, and I know you mentioned those, Mr. Stein, and
7 there's more potentially coming.

8 What do these cuts in employment indicate as far
9 as SolarWorld's future production and capacity? Is it
10 realistic that SolarWorld would continue to produce at
11 levels that we saw from 2012 to 2016, even if relief is
12 imposed?

13 MR. STEIN: Thank you for that question. Juergen
14 Stein, SolarWorld. We had to right-size our production. We
15 could not continue in that circle of death that we also fill
16 our production and with filling that production that we are
17 selling it for additional losses because the prices are even
18 going further down.

19 We simply had to do it. And with that, we also
20 had to right-size our working force. We did all of that,
21 keeping in mind that we want to re-ramp it quickly once the
22 market is there and once there is a price level we can
23 compete with.

24 So we made very, very sorry to choose which
25 departments are important for that, engineers which we need

1 in the future if we re-reramp. Maintenance we need to
2 re-ramp. Technicians, et cetera, that are still there and
3 that we can build on that.

4 So what we see right now with the workforce we
5 have of 300 people., we consider that as the core team we
6 need. We are not losing the main competence. We are not
7 losing the main technical skill set with that, and we can
8 restart and build on that team.

9 That was the main reason we focused on that
10 number. It's maybe even a little high for what we have at
11 the moment. But we wanted to make sure that we can re-ramp
12 it by end of this year or earlier if possible, and that we
13 are not losing the knowledge we have.

14 MR. CARD: Matt Card, Suniva. You didn't ask this
15 of us, but I feel compelled to answer the same question
16 given that much has been made of the fact that our factories
17 are currently idled.

18 There's been a tremendous amount in the press
19 that implies we're dead and never coming back. We still
20 employ facilities' technicians. We still have maintenance
21 facilities. And we went through a very deliberate idling of
22 the equipment with the full intent of, in the appropriately
23 economically rational model bringing the company back. The
24 investors we have in place have fully supported us with a
25 plan to bring the company back.

1 You heard Mayor Johnson here this morning. He
2 would not be here this morning had it not been a central
3 effort to him. You've seen Congressional support from
4 Congressman Woodall, Congressman Kiuldee. They believe, and
5 we earnestly believe, it is our full intent to do everything
6 possible to bring these factories back online and restore
7 manufacturing jobs as quickly as we possibly can, as the
8 environment unfolds.

9 COMMISSIONER BROADBENT: Okay. I know we're
10 getting to the end of our day here, and I had some more
11 questions on scope but I think what I'll do is just read one
12 of these questions into the record, and you can answer for
13 purposes of the record.

14 The scope covers cells, whether or not assembled
15 into products, as opposed to cells in modules defined
16 explicitly. I'm hoping that you can compare this scope to
17 that of the recent investigations on off-road tires and
18 aluminum extrusions which included further assembled
19 products, but only the in-scope components within those
20 products.

21 Is the non-cell portion of the assembled modules
22 included in the scope of these investigations?

23 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein.
24 We'll address that and any other scope questions in the
25 brief. And my apologies, but Mr. Harner has to leave to

1 catch a flight to the West Coast, so if there's no other
2 questions for him, I apologize for that. We didn't
3 anticipate the hearing going on this long, but he'd like to
4 depart if that's alright.

5 COMMISSIONER BROADBENT: I'm done. Thank you.

6 CHAIRMAN SCHMIDTLEIN: I just had one additional
7 question which relates to the requirement that certain
8 suppliers be certified, or meet certain qualification
9 requirements. Apparently some purchasers have reported that
10 there are certification or qualification requirements.;

11 Can you speak to that?

12 MR. STERN: Juergen Stein from SolarWorld.
13 Suppliers qualifications or certifications? You mean our
14 suppliers, or we as suppliers?

15 CHAIRMAN SCHMIDTLEIN: You as a supplier meeting a
16 certification or qualification requirement.

17 MR. MESSER: Shane Messer, SolarWorld. I know
18 that the one place that I did see it was in some finance
19 that we had not qualified for some financial companies.
20 One, for example, that I know of in order for us to qualify
21 to be on their approved vendor list, they requested that we
22 supply our bill of material. So a bill of material is
23 actually our intellectual property.

24 Backsheet, for instance, we've tested more than
25 60 backsheets that are available on the market, and we have

1 approved less than 5 to be a part of our product. We're
2 unwilling to tell a third party who the approved suppliers
3 are because that's part of our intellectual property.

4 So that would be an example of a very large
5 financial third party financing institution that we chose
6 not to be qualified for because they required us to release
7 intellectual property.

8 I will add, too, we've got another large
9 financial provider in the U.S. They're the largest
10 financial provider of loans in the U.S. that has now made
11 the 201 a condition upon us remaining in their approved
12 vendor list. They've made it quite clear directly that if
13 we do not drop the 201 they will remove us from their
14 approved vendor list.

15 CHAIRMAN SCHMIDTLEIN: I'm sorry? Say that again?
16 If you don't drop it, they will remove you?

17 MR. MESSER: Correct. Correct.

18 CHAIRMAN SCHMIDTLEIN: Okay. Mr. Card?

19 MR. CARD: I'll add a comment. I was sitting here
20 thinking through some of that, where that may have come up
21 as an issue. There are various services out there that
22 provide qualification services.

23 One that is fairly, I guess, popular is a company
24 called Solar Buyer, as a service, and they allegedly will do
25 a third-party--an independent audit and quality check.

1 Several different residential providers, one in specific I'm
2 thinking about, we ran into an issue where they said if you
3 can go through the Solar Buyer qualification process we'll
4 add you to our approved vendor list.

5 Our financial issues are very well known, so we
6 try to be very, very diligent about not wasting money. So
7 before we went through a process of spending the money
8 necessary to go through their qualification, we went through
9 some preliminary levels of negotiation. We were so wildly
10 far apart on price that it made absolutely no sense to spend
11 the money to go through a Solar Buyer qualification just to
12 move into a more detailed negotiation to find out that we
13 were so wildly far apart on price.

14 So I certainly understand these services and we
15 have a history of doing those. We've qualified on the
16 California list. We've qualified on the Florida list.
17 We've qualified through Fronhauffer. We've gone through PB
18 Evolutions when they were there.

19 But as we got closer and closer to where every
20 dollar spent mattered because, again, of this just
21 overwhelming overcapacity of imports crushing our prices, we
22 became very judicious about the lists that qualified for.
23 I'd love to be on every single list, but I'm down to where
24 spending every single dollar matters, and I'm not going to
25 qualify something for you to then tell me hey you've got to

1 sell for 15 cents less, or 5 cents less, or one penny less,
2 or we're not doing it.

3 CHAIRMAN SCHMIDTLEIN: Are there tiers in this
4 industry? Go ahead.

5 MR. CARD: So this ties back to the conversation
6 we had earlier against Bloomberg, or about Bloomberg. There
7 is a Tier One, but as Bloomberg says in their own
8 documentation there is not a published Tier Two or Tier
9 Three. Again, to get on Bloomberg's Tier One list, that is
10 primarily a tool used by a term called "bankability," which
11 simply means will banks loan you non-recourse debt.

12 Historically we did not focus on customers who
13 did not have balance sheets to cover their projects. And so
14 we did not do a tremendous amount of non-recourse debt
15 projects.

16 I think SolarWorld is on certainly the
17 bankability list, and then came off the bankability list.
18 It's a continual struggle, but again I'll point you back to
19 Bloomberg's words. This is not a recommendation, so we do
20 not encourage manufacturers to spend significant effort
21 betting onto this list.

22 MR. STEIN: Juergen Stein from SolarWorld. It may
23 be needless to say, but I want to add it here. Of course we
24 have all certifications and qualifications which are
25 required by product or by our organization to sell products

1 in that market which are normally required on a global
2 level.

3 So specifications, qualification of our products,
4 UL, ICE, we have the same for the ESOL 9000, 13,000, 14,000
5 for environmental aspects and so on. So all these of course
6 we have. So if we have any such certification or
7 qualification, it's a customer specific requirement that
8 could happen as we have heard.

9 CHAIRMAN SCHMIDTLEIN: Okay. Okay, I have no
10 further questions. Vice Chairman Johanson? No? Okay, that
11 concludes the Commissioners' questions.

12 Do staff have any questions for this panel?

13 MR. ANDERSON: Yes, Madam Chairman, staff has a
14 brief question.

15 MR. DAVID: Thank you. Andrew David, U.S.
16 International Trade Commission. I have a question for Mr.
17 Yang.

18 The first part is, so what are the main
19 applications for the six modules that you produce--
20 residential, commercial, utility?

21 MR. YANG: Frank Yang, Stion. So today there are
22 two major manufacturers of SIG's thin-film modules in the
23 world. There's ourselves and another company in Japan
24 called Solar Frontier. Solar Frontier is much larger than
25 Stion and does participate in some utility-scale

1 applications, but I would say generally commercial and
2 industrial, and then secondarily residential would be the
3 primary applications for our product today.

4 MR. DAVID: And so how are the prices for your
5 modules set? And what's the relationship between thin-film
6 prices and CSPV prices?

7 MR. YANG: So typically today most of the
8 crystalline products that have been discussed have a higher
9 rated efficiency than thin-film products. So in those
10 cases, unless they are specific performance properties of
11 the thin-film that in certain environments or situations
12 would be better, thin-film will generally price slightly
13 lower than crystalline. But again, I'd re-emphasize the
14 message of all the testimony here, which is that there's
15 very little control on any of our parts over pricing and
16 any ability to raise or even stabilize pricing.

17 MR. DAVID: So as your prices change, that affects
18 crystalline prices? Or if crystalline prices change, does
19 that affect your prices?

20 MR. YANG: So today thin-film collectively is less
21 than 5 percent of the global market. So from a pricing
22 power standpoint, we're completely beholden to what happens
23 specifically not only in crystalline, but very specifically
24 what's driven by the large manufacturers. And so I think I
25 would second everything that's been said today, that any

1 time a quote is made or a bid is given, somebody will come
2 in with a lower price. And then somebody will come back to
3 us to match it.

4 So I think that behavior is consistent across
5 technologies, and also consistent across segments in the
6 market.

7 MR. DAVID: Great. Thank you very much.

8 MR. YANG: Thank you.

9 MR. ANDERSON: Thank you, Madam Chairman. No
10 further questions.

11 CHAIRMAN SCHMIDTLEIN: Alright, thank you. Do
12 Respondents have any questions for this panel?

13 MR. NICELY: Thank you, Madam Chairman. I have
14 one question for Mr. Card.

15 Earlier today you offered to this Commission a
16 quote made by my client, SEIA, from a June 30, 2016, New York
17 Times article. Are you able to share with the Commission
18 the full sentence as stated by SEIA's CEO, Ms. Hopper? Or
19 just the half of it that apparently supports your argument?

20 MR. CARD: We can certainly submit the full quote,
21 and the full article, for that matter. I don't have the
22 full quote in front of me.

23 CHAIRMAN SCHMIDTLEIN: Okay. Alright thank you.
24 That would be great.

25 Alright, that brings us to the conclusion of the

1 Petitioners' panel, so I will dismiss you at this point.

2 Thank you all again, very much.

3 MR. BISHOP: Will the room please come to order?

4 CHAIRMAN SCHMIDTLEIN: Alright, welcome back.

5 Mr. Nicely, you may begin when you're ready.

6 Mr. Secretary, any preliminary matters?

7 MR. BISHOP: Madam Chairman, I would note that
8 the panel in opposition to the petition have been seated.
9 All witnesses on this panel have been sworn and I would
10 remind all the witnesses to please state your name before
11 you speak. It's very difficult for the court reporter to
12 see who is speaking. Thank you.

13 CHAIRMAN SCHMIDTLEIN: Alright, thank you very
14 much. And with that, you may begin.

15 MR. NICELY: Good afternoon. I'm Matt Nicely
16 appearing on behalf of SEIA and coordinating today's
17 presentation for the Respondents.

18 You have before you today senior officials from
19 some of the largest solar companies in the business, all of
20 whom have many years of experience in this industry. They,
21 along with our economist and other counsel, will demonstrate
22 why the story you heard from Petitioners today does not
23 reflect reality and is not sufficient to justify an
24 affirmation finding in this case.

25 STATEMENT OF THOMAS WERNER

1 MR. WERNER: My name is Tom Werner and Madame
2 Chairman Schmidlein, Vice-Chairman Johanson, Commissioner
3 Broadbent, Commissioner Williams, thank you for the
4 opportunity to present to you today.

5 I am the President and CEO of Sun Power. I have
6 been -- I just crossed my 14th year. We are the nation's
7 second largest solar provider. We are a global market
8 participant. We design, manufacturer and install the
9 world's highest efficiency solar technology. We're based in
10 Silicon Valley and we were founded over 30 years ago. We
11 employ over a thousand people in the United States. This
12 includes a robust R&D innovation team that directly shapes
13 how we supply solar power components and systems around the
14 world to the residential, commercial, and utilities scale
15 markets.

16 In 2016 alone, Sun Power invested \$120 million
17 in R&D in the United States. Our customers include Campbell
18 Soup Company, FedEx, Macy's, Stanford University, Wal-Mart,
19 and some of the nation's largest investor-owned utilities
20 and publicly owned utilities and over a half a million
21 residences and small businesses.

22 Since 2003, I've had the privilege of being on
23 the front lines of a dramatic energy industry evolution.
24 During this period, solar power generation capacity has
25 grown more than a hundredfold worldwide and cost has

1 decreased to the point where CSPV is now competing against
2 other sources of energy like natural gas and thin film
3 solar.

4 In 2016, the U.S. PV market hit an all-time high
5 over 14,000 megawatts, more than doubling since 2014. At
6 the same time, China, Germany, and Japan have all produced
7 more solar power than the United States, making this a truly
8 global market. Last year alone 2 percent of all new jobs
9 were created by the solar industry and we collectively
10 contributed \$84 billion to the U.S. gross domestic product.

11 Although government has played a key role in the
12 growth and evolution of solar power, I am convinced that
13 technology innovation and competitive markets are now the
14 key drivers. With a federal investment tax credit set to
15 wind down, we are on a glide path to being a fully,
16 self-sustaining industry. The solar cell I am holding in my
17 hand is an example of Sun Power's industry leading, back
18 context solar cell technology.

19 This was developed originally at Stanford
20 University and perfected in our Silicon Valley labs. It is
21 made using monocrystalline silicon and a unique patented
22 architecture to deliver the highest sunlight to electricity
23 conversion efficiency of any solar product on the market
24 today. High efficiency delivers more energy from a given
25 roof space or land area, which is particularly important for

1 residential applications where Sun Power has a leading
2 market share and where our systems command a significant
3 price premium.

4 While it makes more expensive in terms of
5 upfront costs, we're fully competitive in terms of the price
6 per kilowatt hour delivered over the life of the system.
7 Our customers willingly pay that premium for a product that
8 delivers better energy, long-term performance, and
9 reliability. In 2006, our company's founder, former
10 Stanford University professor, Richard Swanson, outlined the
11 correlation between the cost of solar power and global
12 shipment volume.

13 Swanson's law dictates that the cost of solar
14 declines at a predictable rate as companies innovate, adopt
15 these innovations at scale, and thereby, increased
16 production volumes. We have clear evidence of this affect
17 as the cost of solar power has decreased by more than 60
18 percent over the last five years. This trend drives a
19 virtuous employment, R&D investment, and further cost
20 declines across not only the solar panel industry and
21 downstream channel partners, but also in our supply chain.

22 In the case of Sun Power, we source almost all
23 silicon from partners in Michigan and Tennessee. Much of
24 our power electron is from Colorado and much of our metal
25 products from Arizona and Minnesota. In fact, we have more

1 than 14,000 direct and indirect workers, not including our
2 American supply chain, across the country, as outlined in
3 the slide you see up on the screen.

4 These workers would be vulnerable to solar
5 market declines. I can say without hesitation that
6 customers are embracing solar power because of its cost
7 effectiveness and long-term price certainty. A
8 determination of injury in this case risks severely
9 distorting the market and impairing customers' ability to
10 freely choose competing energy options.

11 Tariffs would adversely impact the U.S. economy,
12 burden domestic manufacturers and suppliers of other key
13 components, raise prices for customers, and eliminate tens
14 of thousands of job. Tariffs would upend the marketplace,
15 which is growing steadily in creating jobs from high tech
16 labs in Silicon Valley to local small businesses designing
17 and installing home solar systems in our nations' heartland.

18 We must continue to let free markets drive in
19 innovation and economic opportunity for the solar sector
20 here in the U.S. Thanks again for the opportunity and I
21 look forward to your questions later.

22 STATEMENT OF AMY GRACE

23 MS. GRACE: Good afternoon. My name is Amy
24 Grace and I manage the North America Research Group at
25 Bloomberg New Energy Finance, a division of the financial

1 information provider, Bloomberg LP. We provide major
2 investors, utilities, policymakers and others with data and
3 insights on the energy sector, including natural gas,
4 renewables, such as wind and solar, and other technologies.
5 My team covers the U.S. and Canadian markets.

6 I'm here today in my role as an analyst for
7 Bloomberg New Energy Finance. My remarks today represent my
8 views alone, not the corporate position in Bloomberg LP, and
9 of course, they do not respect specific investment advice.

10 I've been asked today to testify on the
11 competitive dynamics of the U.S. electricity system, which
12 is, ultimately, the final market for the crystalline silicon
13 photovoltaic products at issue in this case. I will focus
14 my comments on how utility scale solar competes in wholesale
15 markets and in regulated utility resource planning.

16 I recognize that solar also competes at the
17 retail level on residential and commercial rooftops across
18 the country, but for my comments I will focus on the utility
19 scale sector, which represents approximately 60 percent of
20 the total photovoltaic solar market over the last five
21 years. I look forward to answering any questions on the
22 residential and commercial sector during the Q&A.

23 In some places in the U.S. there is demand for
24 new generation, either because of growth and the demand for
25 electricity or because of retirements of aging coal and

1 nuclear fleets. In these few places, utility scale solar
2 will compete against new natural gas and wind build. Gas
3 and wind are typically the cheapest forms of new power in
4 much of the U.S. However, in most regions today, utility
5 scale solar competes against existing generation in both
6 wholesale power markets and in utility planning decisions.

7 Why does utility scale solar compete mostly
8 against existing generation? For the last decade,
9 electricity sales in the U.S. have been flat. As visible in
10 this first slide, growth and demand for electricity, which
11 in the past rose in tandem with GDP growth, has decoupled
12 from this partnership due to energy efficiency and the
13 U.S.'s transition away from manufacturing and towards a
14 service-based economy. There is limited need for new
15 capacity to meet electricity demand and with a few
16 exceptions a new utility scale solar project will only be
17 built if it is cheaper than the cost of running an existing
18 power plant.

19 Over the last decade, wholesale power prices
20 have declined by roughly two-thirds, due primarily to the
21 collapse in price of natural gas, which has become the
22 primary fuel for electricity generation in the U.S. As a
23 result, natural gas fire generators typically set power
24 prices throughout the country. This means utility scale
25 solar must be competitive with the operating cost of an

1 efficient natural gas plant, roughly 20 to \$30 per megawatt
2 hour or it will not be built.

3 So why did the U.S. add over 14 gigawatts of
4 solar last year, 75 percent of which was utility scale and
5 why does Bloomberg New Energy Finance forecast the U.S. to
6 add 52 gigawatts, as visible in the second slide, between
7 2018 and 2021? First, policy still matters. The Federal
8 Investment Tax Credit remains instrumental in bolstering
9 solar project economics. State policies mandating solar
10 have played an equal, if not more important role
11 historically; however, these state policies have become less
12 important over the last couple of years as a driver for new
13 solar build.

14 Less than 10 percent of our forecasted U.S.
15 solar build is effectively locked in by solar-specific state
16 mandates, seen here in Slide 3. Most of the solar-specific
17 targets have already been met. Another 13 percent we expect
18 will be driven by technology agnostic renewable mandates
19 where solar competes head-to-head against wind and other
20 forms of renewable energy generation.

21 Similarly, most of these technology agnostic
22 renewable energy targets have also already been met.
23 Outside of policy, utilities are building or buying solar
24 because with the federal subsidy, it is cheaper than the
25 operating costs of their existing generation or it is useful

1 as a hedge against future fuel price volatility.

2 In addition, corporations and large energy users
3 from the Fortune 500s, the U.S. Military are signing
4 contracts with the utility scale projects to offset their
5 electricity consumption and cost effectively meet internal
6 sustainability targets. Corporations generally do not
7 consume the electricity generated by solar projects
8 directly. It is sold into the wholesale market. Rather
9 the corporation is merely providing a financial hedge to the
10 solar project, guaranteeing a fixed price for the power it
11 produces and accepting the risk that the wholesale power
12 price will, over time, roughly equate to or exceed this
13 fixed price.

14 As such, outside of solar mandates, the
15 competitiveness of utility scale solar with wholesale power
16 prices is critical. It is worth emphasizing the significant
17 cost declines achieved by U.S. developers and their
18 equipment suppliers over the last decade, as seen in Slide
19 4.

20 In 2006, the average price for a long-term
21 utility scale solar contract was \$224 per megawatt hour. In
22 2016, it was between 30 to \$40 per megawatt hour. This is
23 why utility scale solar is able to compete with other forms
24 of electricity generation. It is now price competitive with
25 wind and wholesale power in several parts of the country,

1 but just barely.

2 So what would happen if the Petitioners'
3 requested tariffs were to take effect? All else equal, any
4 increase in equipment costs for utility scaled developers,
5 whether at the result of lower domestic subsidies or
6 increased import tariffs would increase the price of solar
7 electricity developers can offer and any increase in the
8 price of solar offered to electricity purchasers, whether a
9 utility, a financial intermediary, or a corporation would
10 result in fewer contracts being signed and lower solar
11 deployment.

12 Fundamentally, demand for solar energy is
13 elastic. Its output, electricity, is fungible with all
14 other forms of power generation, except where policy
15 dictates otherwise, for example, through mandates for
16 specifically solar or renewable energy. As mentioned
17 previously, these mandates have mostly been fulfilled and
18 are a small percentage of forecasts of future build.
19 Without a policy mandate, utilities will normally build the
20 cheapest form of power, regardless of its source.
21 Corporations with sustainability goals will sign long-term
22 contracts with the cheapest form of renewable resource.
23 This is not hypothetical. New contracting activity for
24 utility scale solar projects has essentially grounded to a
25 halt since June.

1 Developers cannot reasonably guarantee
2 competitive contract terms with their counterparties when
3 they don't know how much they will have to pay for modules,
4 the most expensive line items of a project's cost.

5 This brings me to my final point. Regardless of
6 the ultimate impact on costs, political and legal
7 uncertainty alone can result in less willingness to invest
8 and a higher cost of financing.

9 In closing, I would like to reemphasize the
10 competitive nature of the U.S. power market. The days of
11 solar build being driven by solar-specific policy
12 requirements have essentially passed. The majority of solar
13 build in recent years has been as a result of solar power's
14 cost competitiveness with other forms of new and existing
15 bulk generation and rooftop solars cost competitiveness with
16 retail energy prices.

17 Any increase in price in the future will
18 negatively impact how much solar is installed in the United
19 States as well as the companies and people that rely on
20 access to competitively priced solar equipment for their
21 livelihood. Thank you.

22 MR. NICELY: Thank you, Amy. Craig.

23 STATEMENT OF CRAIG CORNELIUS

24 MR. CORNELIUS: Thank you for the opportunity to
25 address the Commission today. My name is Craig Cornelius

1 and I serve as the President of NRG Renewables. I have been
2 with NRG since 2013 and have been in leadership roles in
3 solar in the public and private sectors for more than a
4 decade. NRG is one of the largest independent power
5 producers in the United States and with over 48,000
6 megawatts of generation across all fuel sources is one of
7 the largest owner-operators of renewable generation in the
8 country.

9 As measured by gross generating capacity in the
10 U.S., we are custodians of the largest utility solar fleet,
11 the fourth largest distributed solar fleet, and the fifth
12 largest wind fleet. Under our business model, which is
13 similar to that of most other large owner-operators of
14 solar, we develop and operate solar projects that sell power
15 primarily through long-term contracts to utilities,
16 municipalities, and commercial customers.

17 During the last decade, over the time prior to
18 and during the period of investigation for this case, we saw
19 transformational change in the U.S. electric power supply
20 and demand, in market prices, and in fuel sources. All came
21 as a result of the relentless progress of innovation, supply
22 chain evolution, and cost reduction, most notably, in
23 natural production, wind technology and construction, and
24 solar SCPV and thin film technology, construction and
25 operations.

1 The result was downward pressure on wholesale
2 power markets nearly every year for the last eight years to
3 today when on peak power prices in the market serviceable by
4 solar ranged from 29 to \$37 per megawatt hour. A new solar
5 power contract signed today must offer pricing that is 60 to
6 70 percent lower than the average levelized cost from solar
7 installations was in 2012.

8 So it was in this harsh context, one of
9 relentless technology innovation, numerous and abundant fuel
10 options, and relentless price deflation that the solar
11 industry grew from a niche fuel source in 2008 to the number
12 one new power generation capacity source last year. The
13 single most important factor that drove solar's growth over
14 that time across both the utility and distributed segments
15 was the ability of solar to compete on cost with other
16 electricity sources.

17 As of 2012, the U.S. utility solar was still a
18 relatively new market. Initial projects in California and
19 the West proved the concept of solar as a reliable source of
20 electricity at utility scale. And in the years that
21 followed, regulators and customers in other markets
22 developed an interest in solar, but only so long as solar
23 providers were able to compete with dropping power prices,
24 offer power contracts at large scale, and build projects
25 reliably and quickly.

1 Each year these bars were raised higher. Price
2 expectations came down and scale expectations came up and
3 these demands were imminently foreseeable to all in our
4 market as they permeated to every customer sales
5 conversation, every engagement with power market regulators,
6 and every sound business planning or investment process.
7 And yet, through investments and technology, product design
8 scale, and business operations, U.S. utility scale solar
9 grew from 780 megawatts in 2011 to more than 10 gigawatts in
10 2016.

11 This growth was not driven just by the need to
12 comply with policy mandates, but most fundamentally, by the
13 ability of solar to achieve good parity. In addition to
14 being able to offer good price to drive this growth, we also
15 needed to provide solutions that designed fit to purpose.
16 For large solar projects during the POI, developers used 72
17 Celsius PV modules almost exclusively because these module
18 designs enabled low cost construction methods that made
19 projects viable.

20 Additionally, as initial installation cost
21 compressed, lifetime module performance became a more
22 significant purchasing criterion and developers elected for
23 72 cell modules that incorporated the latest
24 state-of-the-art technologies to reduce cell conversion
25 efficiency and degradation.

1 MR. LAMON: Good afternoon, Madam Chairman and
2 Commissioners. My name is Jim Lamon. I'm the Founder and
3 Chief Executive Officer of Depcom Power. I've got over
4 thirty years of industry experience in the utility power
5 industry, spanning coal plants, gas-fired plants and more
6 recently, the last eight years, in utility-scale solar.

7 I've been fortunate in my career to be
8 responsible for engineering and construction teams of some
9 of the largest, most complex power plants in our country.
10 My current company, Depcom Power, is headquartered in
11 Scottsdale, Arizona and is an engineering construction
12 company of utility-scale solar power plants.

13 We're also involved in project development,
14 operations and maintenance of our customers' plants. We
15 have approximately 100 employees in our offices in Arizona,
16 New Jersey and California, and approximately 1,000
17 construction workers on our job sites across the country.
18 That includes Connecticut, Virginia, North Carolina,
19 Mississippi, New Mexico and the great State of Texas.

20 In less than four years, we've grown to over
21 three hundred million annual revenue and growing at about a
22 rate of about 30% annually. All of our Depcom employees are
23 shareholders in our company. We have a "Hire Veterans
24 First" policy and presently 27% of our staff are veterans.
25 I myself served six years as a U.S. Army officer overseas

1 and domestically in U.S. Army Airborne.

2 We have a "Buy American First" policy and
3 roughly two-thirds of our content of our entire plants today
4 come from U.S. domestic sourcing. I believe this is as much
5 or more than any of my competitors. So choosing American
6 products and services is simply a part of our core
7 philosophy at Depcom. One distinct feature of utility solar
8 power is the sheer size. For a typical residential or
9 commercial project might be a one-off installation
10 involving 10 to 2,000 modules, our projects typically
11 require 50,000 to 200,000 and frequently I have repeat
12 customers.

13 Understandably projects this size require module
14 suppliers to meet strict qualifications. These include
15 quality, reliability, and long-term service and warranty.
16 In addition, we need large volumes for these projects. We
17 need our suppliers to deliver on time. We need them to
18 continually improve their efficiencies to maintain our
19 competitive edge in the market, since we design our plants
20 for a 30-year life and we put our service reputation on the
21 line with each project. Modules that do not beat these high
22 standards are simply unusable at any price.

23 The point is driven home in considering our
24 experience with Suniva and SolarWorld. Neither were able to
25 meet our criteria. Our large-scale projects are widely

1 known in the industry such that any supplier could readily
2 seek out our business. Suniva could not meet the volumes.
3 Just for this year alone, we'll install over 300 megawatts
4 easily. And our backlog and their supply doesn't reach
5 nearly that level. They're also not Tier 1 Bloomberg
6 certified, therefore are not financeable in the utility
7 industry. These are large projects, require tens of
8 millions of dollars and must be financeable.

9 Depcom's experience with SolarWorld was
10 unsatisfactory. In 2015 we procured their product for a \$12
11 million dollar single project. In retrospect of the
12 projects--over fifty we've built to date--it was the worst,
13 relative to module performance. Depcom had to exert
14 oversight and pressure to get SolarWorld to deliver its
15 product--which were never delivered on time--a product that
16 we believe that was made in America, given their marketing,
17 but in fact, per the label on the modules, were manufactured
18 in Germany and Thailand.

19 During the project, SolarWorld informed Depcom
20 it could not produce the modules that we had contracted for.
21 Instead, they offered us a difficult choice of either
22 accepting a different module that we had not ordered, and
23 not meeting our needs or face lengthy and unacceptable
24 delays in delivering. Further, SolarWorld's modules
25 underperformed after installation, after we commissioned the

1 plant, resulting in a warranty claim by the project owner
2 against SolarWorld.

3 Since we had procured the modules for the owner,
4 we dedicated personnel to investigate these \$12 million of
5 underperforming modules. This cost not only our time
6 resources, but obviously endangered our reputation. We
7 stuck with the project, made sure in the end that it did
8 work. As such, we would never use SolarWorld modules on any
9 future project.

10 Again, in our significant fifty-plus utility
11 solar experience with projects, these companies would not be
12 acceptable suppliers to us at any price. And by the way,
13 utilities have required seventy-two cells since 2009 in the
14 utility-scale industry.

15 In closing, my company and the other 260,000+
16 solar workers are working hard every day to drive down the
17 cost of utility-scale solar price and power in our country.
18 Today we're more competitive than coal and nuclear, as you
19 just heard, and we're rapidly approaching that of gas-fired
20 plants.

21 So on behalf of our 260,000 fellow U.S. solar
22 workers and manufacturers, we ask that you do not disrupt
23 this rapidly growing low-cost power source in the industry,
24 and in fact, we believe that this lower cost of power's in
25 fact a manufacturing enhancer in our country goes from

1 automotive to data centers, they're using this power to
2 lower their bills today. I thank you for your time.

3 STATEMENT OF DAN SHUGAR

4 MR. SHUGAR: Good afternoon. My name's Dan
5 Shugar. Thank you for the opportunity, Madame Chairman, and
6 the other Commissioners to present. I founded NEXTracker
7 four years ago in 2013 and two years ago we were acquired by
8 Flex, which is a \$25 billion company. Today I run
9 NEXTracker as a wholly owned subsidiary of Flex.

10 NEXTracker designs and manufactures structures
11 that enable solar panels to follow the sun during the day,
12 generating significantly more power. We're headquartered in
13 Fremont, California and manufacture and serve customers on
14 five continents. We've created many hundreds of jobs in our
15 U.S. operations in Fremont and Nashville, and also many
16 thousands of jobs at our U.S. manufacturing sub-suppliers
17 and customers.

18 Our top markets are the U.S., India, Mexico,
19 Brazil and Australia as a global company. We are global and
20 U.S. volume leader for these types of structures. Today
21 we've delivered 9 gigawatts, which is the equivalent
22 capacity of thirty-eight coal power plant units. In
23 addition to trackers, we provide solar panels to certain
24 customers. I've been in the solar industry since 1988 and
25 have served an executive capacities of solar panel

1 manufacturers, utilities and component manufacturers.

2 The key driver for this industry is innovation.
3 And innovation has improved solar cells, as we heard Tom
4 Werner discuss module structures and all aspects of our
5 industry. Innovation has enabled solar to become the lowest
6 cost source of power in much of America's sunbelt and one of
7 the top new sources of new power. In NEXTracker's case,
8 innovation harvests the sun more efficiently, enabled us to
9 deliver better returns on investment to owners of power
10 plants and become a global leader.

11 I would like to share some perspectives on
12 SolarWorld. I've known its founder and CEO, Frank Asbeck,
13 for over twenty years. SolarWorld started as an installer
14 of solar products in Germany. About 2005, they began
15 manufacturing crystalline solar in Germany and later the
16 U.S. At the time, the German grid heavily subsidized solar
17 energy, paying about forty-five cents per kilowatt hour.
18 That's over ten times today's rate for solar at three to
19 four cents per kilowatt hour.

20 SolarWorld's value peaked in 2006 when their
21 stock hit 265 Euros per share on the Frankfurt Exchange.
22 From that peak, the solar industry began rapidly
23 transitioning, from a heavily subsidized market in overcast
24 Germany to more competitive markets where systems are
25 located in sunny areas and the economics of solar directly

1 compete with traditional power like coal. This is the
2 major driver of demand. And the transition required
3 ferocious innovation and cost reduction, and SolarWorld
4 could not keep up.

5 As mentioned earlier today, SolarWorld has a
6 judgment of over \$700 million from Hemlock Semiconductor
7 hanging over their head, which may have impacted their
8 ability to perform. Two years ago, NEXTracker began
9 offering a product line in the U.S. called NX Fusion, where
10 our tracker was put together with solar panels, and as an
11 integrated package for utility applications. To enable
12 rapid delivery to our U.S. customers, we were looking for a
13 domestic supplier.

14 SolarWorld had heavily promoted the capabilities
15 of their Hillsboro, Oregon, factory to us. We decided to
16 take them at their word and give SolarWorld a chance to
17 become a significant business partner with a major new
18 order. That turned out to be a poor decision. On September
19 15th of 2015 we awarded SolarWorld a \$32 million purchase
20 order for 156,000 solar panels over the coming year. The
21 order specified 72-cell solar panels which are needed for
22 most utility applications.

23 SolarWorld accepted that order, but then had a
24 range of problems fulfilling it, starting with deliveries
25 that were late by six weeks or more. When the panels

1 finally came, we discovered from the labels that they were
2 actually made in Thailand, not Oregon. Additionally,
3 non-conformance with technical specifications required us to
4 modify the panels in a third-party factory before they could
5 be delivered to the job site.

6 The large magnitude of operational problems
7 SolarWorld had in fulfilling the 72-cell panel deliveries
8 ultimately led us to cancel the balance of the order after
9 less than 10% of the panels had been delivered. SolarWorld
10 recognized their failings and accepted the order with no
11 penalty after crediting us with the cost of bringing the
12 panels to a third-party location to bring them within
13 specification.

14 After this fiasco, we disqualified SolarWorld
15 from our vendor list. This is not a picture of a company
16 poised to succeed in the marketplace if granted, still, yet
17 another trade remedy. In closing, please understand that
18 NEXTracker is one of many solar industry businesses that are
19 looking to the Commission to recognize the very special
20 circumstances of this industry, an industry where long-term
21 trends reflect decades of hard work and innovation to drive
22 down costs, expand demand and enable affordable, reliable
23 solar systems to lower the cost of power for millions of
24 Americans and American businesses. We respectfully urge the
25 Commission to reject the petition, which is causing great

1 uncertainty and damage to the U.S. solar industry. Thank
2 you.

3 STATEMENT OF ED FENSTER

4 MR. FENSTER: My name is Ed Fenster. I'm the
5 Executive Chairman and Co-Founder of Sunrun. Sunrun was
6 founded in an attic ten years ago and has grown into the
7 largest dedicated residential solar company in the United
8 States, serving about 150,000 families in twenty-two states
9 and here in D.C.

10 Sunrun achieved this growth by pioneering home
11 solar as a service, a model in which we pay for the
12 installation and then sell power to homeowners by the
13 kilowatt hour from the solar system on their roof which we
14 own and maintain. In my testimony, I will discuss unique
15 attributes of the residential solar sector and how Suniva
16 and SolarWorld failed to compete for Sunrun's business,
17 notwithstanding opportunities we extended them.

18 Residential solar is a major source of
19 employment. Sunrun and our installation and sales partners
20 employ approximately 11,000 Americans and Sunrun's market
21 share is estimated at just 13% of the residential segment.
22 These well-paid jobs cannot be exported or automated. I'm
23 honored to be here today representing the hard-working women
24 and men who are committed to bringing clean energy to homes
25 across the country.

1 To effectively market its services, Sunrun must
2 offer power to homeowners at a discount to the local
3 utility. A study we performed concluded customer interest
4 in solar increases about three-fold when the discount we
5 offer rises from 10% to 20%. Conversely, when regulators in
6 Nevada eliminated the savings solar customers could enjoy,
7 that state went overnight from being the fastest growing and
8 fourth-largest residential market to a total wasteland with
9 near total job losses resulting. Laying off all of our
10 Nevada staff was heartbreaking.

11 Following substantial public outcry, the
12 legislator and governor overturned the regulator's decision
13 and growth and jobs are now returning. Sunrun's typical
14 customer lease has an initial 20-year term. During the
15 lease, Sunrun pays for all maintenance and repairs. As
16 such, Sunrun must believe each new system will last for
17 decades, despite suffering extreme heat, cold, wind, rain,
18 vermin, plus perhaps sleet, snow and golf balls.

19 For instance, adding even one visit can wipe out
20 ten cents a watt in module cost savings. Equipment failure
21 has also measurably and significantly undermined customer
22 satisfaction. Quality is paramount. For the same reason,
23 lenders who fund the billions of dollars Sunrun requires,
24 insist on rock-solid assurances our system will deliver as
25 promised.

1 The loans they make are nonrecourse. So if the
2 systems don't perform, they are unlikely to recover their
3 investment. Nonrecourse finance is best practiced in all
4 asset finance. Typically, lenders specify which
5 manufacturers' module Sunrun may use, based on module
6 reliability. Several lenders even employ full-time
7 engineers to assess module quality.

8 Please review the declaration supplied by
9 Sunrun's Director of Strategic Sourcing, Dirk Morbitzer, who
10 created and runs Sunrun's vendor quality management program,
11 or VQMP. And his declaration, Appendix C, is brief. Dirk
12 explains how Sunrun objectively tests whether modules from
13 potential suppliers meet our quality standards. For
14 instance, Sunrun performs factory inspections and
15 accelerated product testing designed to simulate the harsh
16 environment and performance stresses that modules endure
17 over their lifetime.

18 Despite our desire to support American
19 manufacturers, the two petitioners in this case did not
20 qualify under the VQMP. In 2014, Dirk invited both
21 SolarWorld and Suniva to participate and each chose not to
22 proceed. In part to support American manufacturers, our
23 subsidiary that distributes equipment to other solar
24 companies, at times carried panels from each petitioner. As
25 detailed in Dirk's declaration, we experienced and delivery

1 and serious product quality problems with both companies,
2 inflicting upon us financial and reputational harm.

3 For instance, SolarWorld recalled faulty panels,
4 which is highly unusual in this industry, and misdelivery
5 timing. In 2013 and 2014, when our distributor sourced
6 Suniva panels for companies who wanted American-made
7 product, in a series of similar incidents, Suniva modules
8 were delivered labeled "Made in China". This and other
9 problems with Suniva were so frequent that when they
10 approached us anew about the VQMP in 2016, we declined.

11 Leasing companies following Sunrun's model,
12 which typically invests more heavily in quality assurance,
13 represented 62% of the residential market between 2012 and
14 2016, up from zero in 2007. The petitioners' refusal to
15 submit to testing meant they didn't have material access to
16 that market.

17 Finally, I will touch on why Sunrun believes the
18 solar market saw declining prices and surging growth,
19 especially beginning around 2014. Over at least the decade
20 we've been in business, the better module and inverter
21 manufacturers, regardless of location, innovated to increase
22 power output, enhance quality, and lower unit costs.

23 Solar developers like Sunrun eliminated soft
24 costs at a similar pace. These combined forces created the
25 appearance that solar is a deflationary good, the type you

1 might wait to buy because it will be cheaper later. Hence,
2 many buyers chose to sit out the first portion of the
3 eight-year extension of the investment tax credit in 2008
4 and then surged into the market in the second half,
5 depending on project lead time.

6 The volumes driven by this surge and the need to
7 stay competitive after incentives fell, drove cost
8 productions for Sunrun and our suppliers. Thank you very
9 much for your consideration today.

10 STATEMENT OF BASTEL WARDAK

11 MR. WARDAK: Good afternoon. I'm Barry Wardak,
12 Founder and President of California Solar Systems, or CSS.
13 We are a regional, full-service integrator of solar electric
14 projects for residential customers. We employ fifty people
15 and install over 700 residential solar systems each year.

16 Today you've heard from large American companies
17 like Sunrun, but I'm here to give my perspective as a small
18 solar company that also opposes this case. I have
19 first-hand experience with Suniva and I do not believe
20 either petitioning company deserves safeguards relief. As a
21 company specializing the residential market, I buy through
22 distributors.

23 In May 2016, I switched from foreign suppliers
24 to Suniva based on a commitment from our distributors that
25 we would have sufficient supplies of modules that met our

1 requirements. We transitioned from imported products to
2 Suniva because we wanted "Buy American." By August 2016,
3 installations began using Suniva modules, but Suniva
4 informed us almost immediately that it could not deliver as
5 promised. The products we ordered were backlogged for at
6 least the next three months.

7 Suniva offered to exchange to a lower wattage
8 product line, but our residential customers demanded higher
9 efficiency. Homeowners cannot justify putting solar panels
10 on their roofs unless the system saves them money on the
11 cost of electricity.

12 Suniva's lengthy delay was unacceptable. We
13 decided to switch to SolarWorld, even though their modules
14 were more expensive. We justified the premium because we
15 could market the modules as "Made in the USA." However, we
16 became aware of the news of the insolvency of SolarWorld's
17 Germany parent company. We decided to diversify our
18 suppliers in case the parent's insolvency should affect
19 SolarWorld, Americas' ability to deliver the quantity of
20 modules that we require.

21 Solar's a very competitive market. We are
22 seeing a shrinking demand pool as 15% to 20% of
23 solar-qualified homes in California have already gone solar.
24 The low-hanging fruit are already taken, meaning buyers who
25 are less price-sensitive because they have high electricity

1 bills and high credit scores, or are motivated by their
2 interest in the environmental protection, convincing the
3 other remaining 80% to 85% of customers to go solar is more
4 difficult, as they are mostly motivated by cost and are
5 comparing the cost of solar with other alternatives.

6 Competition in the residential market is
7 therefore becoming similar to the utility sector. In order
8 to compete, solar must reach grid parity, where the ultimate
9 price paid for solar-driven electricity is on par with
10 natural gas, wind and other lower-cost alternatives. Thank
11 you for the opportunity to speak today.

12 STATEMENT OF JIM DOUGAN

13 MR. DOUGAN: Good afternoon, I'm Jim Dougan from
14 ECS. I've prepared a set of mostly confidential slides with
15 a few public slides interspersed which you should have in
16 front of you now. First, when the Commission assesses
17 petitioners' claims of lost market share, it should keep in
18 mind how significantly CSPV demand grew over the POI and how
19 it compared to domestic capacity.

20 Slide 18 compares apparent U.S. consumption to
21 domestic cell and module capacity. The domestic industry
22 lost market share despite significant increases in its
23 capacity, production and shipments, simply because demand
24 grew even more significantly. Moreover, when analyzing the
25 domestic industry's volume indicia, it's important to

1 establish that its module production is constrained by its
2 supply of cells. Module producers either produce the cells
3 themselves or import them, as there's no commercial market
4 for domestically-produced cells.

5 Slide 19 reproduces Figure 3-1 from the public
6 staff report showing an upward trend in U.S. cell capacity
7 production utilization over the POI. This is not the
8 picture of a seriously injured industry.

9 As confidential Slide 20 shows, the picture is
10 even more compelling when restricted to the cell producers
11 supporting the petition.

12 Confidential Slide 21 shows what accounts for
13 the difference. In assessing the probative value of module
14 utilization, the Commission should keep these facts in mind
15 and consider that application of any remedy in this case
16 would have a negative effect on the production and
17 utilization of domestic module producers relying upon
18 imported cells.

19 Slide 22 reproduces Figure 3-2 from the public
20 staff report, and shows a similar upward trend. Utilization
21 dipped in 2016 only because of the large additions to
22 capacity, which is a sign of industry health, not injury.
23 Moreover, as I just mentioned, the Commission should
24 consider the utilization rate for modules in the context of
25 the utilization rate for cells, given how the former is

1 directly affected by the latter. In other words, if a
2 producer cannot produce more cells, they cannot produce more
3 modules. The constraint on module production is not module
4 capacity, but rather the availability of cells.

5 This fact may explain the strategic decision of
6 some producers as shown at confidential Slide 23. It is
7 clear from this slide that U.S. producers utilization for
8 cells affects their decision-making, and that this does not
9 necessarily benefit the domestic industry.

10 The supply is not only to the domestic
11 producers' strategy with respect to cell production, but
12 also as shown at confidential Slide 24, how the interaction
13 of these constraints influences domestic production overall.
14 The Commission should analyze any increase in import volumes
15 about being aware of this context.

16 Notably, while petitioners focus on the increase
17 in module imports over the POI, they say little about the
18 fact that the vast majority of module imports went to the
19 utility segment. See confidential Slide 25. This is the
20 segment in which the domestic producers did not meaningfully
21 compete for the many reasons you heard from these industry
22 witnesses. Therefore, the vast majority of imports and
23 increase in imports could not have been a cause of serious
24 injury to the domestic industry because they were directed
25 to a segment where U.S. producers participate only a very

1 limited degree.

2 Any increase in imports directed at the
3 nonutility segments of the market were similarly not
4 injurious to the domestic industry. This is because
5 domestic producers actually increased their shipments to the
6 nonutility segments and couldn't have increased their
7 shipments by significantly more, given one, their capacity
8 constraints, and two, the degree to which they have made
9 themselves unavailable to, or even alienated such a large
10 portion of the market, as you've heard from industry
11 witnesses on this panel.

12 Thus, petitioners cannot credibly claim to be
13 seriously injured by the increase in imports to any side.
14 The types of products sold by domestic producers and
15 importers also demonstrate market segmentation. They were
16 concentrated in different products than the domestic
17 industry. As shown at confidential Slide 26, imports were
18 primarily 72-cell modules which are the products required by
19 the utility segment. In contrast, domestic shipments were
20 primarily concentrated in 60-cell modules used in
21 residential and small-scale commercial installations.

22 As shown at confidential Slide 27, the domestic
23 industry's strategic decisions demonstrate that its focus
24 was in segments other than utilities and the products
25 required to serve them. Thus, for all the foregoing

1 reasons, the increase in imports over the POI could not have
2 caused serious injury to the domestic industry.

3 The absence of this injury is apparent from the
4 industry's financial data. While the data for U.S.
5 producers' cell operations are confidential, we don't
6 believe they show any signs of injury as shown at
7 confidential Slide 28, which demonstrates that point.

8 Slide 29 shows the public financial results for
9 the U.S. module operations. As you can see, these financial
10 results markably improved over the POI at the gross
11 operating and net income labels. These are not trends that
12 support a finding that the industry is seriously injured.
13 The industry's results in 2016 would've been better but for
14 the start-up of certain firms, as shown at confidential
15 Slide 30.

16 This goes to petitioners' causation argument.
17 It cannot attribute supposed injury to imports when, in
18 reality, it's the start-up of new firms, not imports, that
19 impacted the industry's financial results. This is
20 especially true when the start-up of these new firms has
21 increased the domestic industry's capacity, production,
22 investment and employment, all goals that the petitioners
23 presumably support.

24 The industry's level of capital expenditures
25 also show these benefits, as shown at confidential Slide 31.

1 They show an industry with a strong outlook for the future,
2 and a demonstrable willingness to commit capital to domestic
3 manufacturing. Regarding pricing, I'll begin by addressing
4 the underselling analysis. The price data show market and
5 product segmentation similar to discussed earlier.

6 As shown at confidential Slide 32, the
7 distribution of domestic and importers' sales across pricing
8 products, so limited competitive overlap. Where U.S.
9 producers and importers did compete, it was a near equal mix
10 of overselling and underselling, as shown at Slide 33,
11 showing that imports undersold in thirty-five instances and
12 oversold in thirty-two. In its pre-hearing brief, Suniva
13 attempted to engineer underselling where it doesn't exist.
14 And while I don't have time to address it now, I'd be happy
15 to answer a question later.

16 But in general, the petitioners want the
17 Commission to believe it should make the same finding as in
18 the previous two CSPV cases, as if this is already a settled
19 issue. But it's unsupported by the evidence. The
20 underselling data from CSPV 2 are confidential, but as shown
21 at Slide 34, in CSPV 1, there were 35 instances of
22 underselling and only 11 instances of overselling. The
23 evidence in this case tells a different story, and therefore
24 the Commission should make a different finding.

25 The underselling cannot be considered injurious,

1 especially when the majority of responding purchasers
2 stated, they didn't purchase imports instead of domestic
3 product on the basis of price. Specifically, though 88 of
4 101 responding purchasers stated that they'd purchased
5 imported products instead of domestic products, only 31
6 reported that price was the primary reason for their
7 purchase.

8 Importantly, as shown at confidential Slide 35,
9 the 57 remaining purchasers represent the vast majority of
10 purchasers by quantity over the POI. The fact that most
11 purchasers didn't make their decision on the basis of price
12 is corroborated by purchaser responses regarding major
13 purchasing factors. More than twice as many purchasers rank
14 quality and performance first as ranked price first.

15 These data are conclusive evidence that imports,
16 however they were priced, did not seriously injure the
17 domestic industry. I would like to close by making a very
18 important conceptual point. Petitioners arguments about
19 demand for CSPV completely ignore the economic reality of
20 the market. As you can see from Slide 36, the global demand
21 for solar energy increased so significantly in recent years,
22 precisely because the price for solar cells and modules
23 decreased so significantly.

24 This supply is to the U.S. market as well and
25 accounts for the massive growth you saw back in Slide 18.

1 There is no significant amount of demand for CSPV
2 independent of its price competitiveness with other
3 established or emerging sources of energy.

4 As Ms. Grace testified, solar-specific policy
5 mandates account for less than 10% of projected future
6 build. All of the players in the industry understand this,
7 and for petitioners to argue otherwise is misleading to the
8 Commission. Dr. Prusa.

9 STATEMENT OF TOM PRUSA

10 DR. PRUSA: Thank you. Good afternoon.
11 My name is Tom Prusa. I'm a professor and the Chair of the
12 Economics Department at Rutgers University. My statistical
13 study directly addresses the legal requirement that imports
14 be shown to be the most important cause of injury to the
15 domestic industry. I do so by clarifying what caused
16 declines in the prices during the period of investigation.

17 As Mr. Dougan just discussed, the domestic
18 industry's capacity constraints make declining market share
19 a meaningless statistic. Consequently, my inquiry into
20 pricing gets at the heart of what should be the petitioners
21 proof that imports were a substantial cause of serious
22 injury experienced by the domestic industry.

23 I use national and state level data to estimate
24 the impact of a variety of factors on the price of 60-cell
25 and 72-cell modules over the period of investigation,

1 whether at the state or national level, whether at the
2 residential or utility-scale level. Under no circumstances
3 do I find the volume of imports to be the most important
4 cause of price changes in either the 60-cell module or
5 72-cell module market.

6 Before discussing specifics of my study, I think
7 it's worthwhile to give some background on the approach.
8 One cannot understand pricing of CSPV modules without
9 considering the role of technological progress. The CSPV
10 industry has long demonstrated persistent and significant
11 cost reductions that have resulted in nearly continuous
12 annual price decreases over the last 40 years.

13 Scholars have noted that CSPV is easily the
14 energy source that has demonstrated the most technological
15 advancements. One of the first papers to document CSPV's
16 remarkable technological change was Swanson in 2006. The
17 chart shows that prices have steadily fallen as the industry
18 has grown. From this longer run perspective, the price
19 reductions during the period are nothing special. They are
20 the norm for this industry.

21 Swanson then goes on to detail why technology
22 costs and prices have changed so rapidly over more than four
23 decades for the CSPV industry. There are two key take-aways
24 from this table. First, eight of his nine factors relate to
25 advancements that reflect external economies of scale.

1 These are advancements that affect all industry
2 participants. All industry members benefit from such
3 progress.

4 Second, in the rightmost column, I list changes
5 that have occurred in each category since Swanson wrote his
6 paper a decade ago. His insight remains true today. The
7 pre-hearing staff report documents cost improvements for
8 domestic cell and module producers. Much of that data is
9 confidential, but the public data shows a similar pattern.
10 As seen in the table on the screen, over the period, per
11 unit total COGS decreased by an annual average of 14.7%.

12 The second critical factor I want to discuss is
13 that of good parity. Let me take a minute to explain how an
14 economist interprets good parity using the textbook
15 graphical analysis. In the chart, I depict two cost curves.
16 Let me call one CSPV Solar, and the other Natural Gas. As
17 depicted, the cost of both energy sources are falling over
18 time, but CSPV costs are falling faster than those of
19 natural gas. Eventually the cost of CSPV reaches that of
20 natural gas. Before that time, incentives are needed to
21 induce customers to install solar.

22 As depicted, the subsidy level required to put
23 solar on the same cost basis as natural gas declines over
24 time. Declining support structure exerts extreme pressure
25 on CSPV producers to maintain the projected rate of

1 technological advancement. If they do not, or if cost of
2 other sources of electricity on the grid, fall faster than
3 expected, a price gap will develop and CSPV will no longer
4 be a viable energy option, even with government incentives.

5 This type of competitive pressure from other
6 sources of energy, natural gas, wind, thin-film solar, have
7 played a role in CSPV pricing during the period. Thin-film
8 is an alternative source of solar power and has experienced
9 dramatic technological change during the period of
10 investigation. Wind has long been a cheaper renewable
11 option.

12 Let me now talk about my study. I separately
13 analyzed the residential market and the utility scale
14 market. I did this because the record shows that
15 residential installation is almost exclusively used 60-cell
16 modules. And utility-scale installations almost always use
17 72-cell modules. As you have heard earlier from industry
18 witnesses, this segmentation is not because of price, but
19 rather because of specific considerations of each segment.

20 Limited space dominates a decision of what can
21 go on the roof. Space is not generally a primary factor for
22 utility-scale. Rather, minimizing other costs, like,
23 racking, wiring, mounting, etcetera, all make 72-cell
24 modules the preferred choice for utility scale. In each
25 segment, I include as many costs in demand side variables as

1 possible, given the available data.

2 Now I freely admit that my study does not
3 include all the factors that have played a role. For
4 example, industry experts have just testified to a litany of
5 problems both Suniva and SolarWorld have experienced over
6 the period. Their problems detailed were not caused by
7 imports but rather reflect dysfunctional management and
8 supply decisions. I'm not able to model these decisions.

9 As a result, I likely attribute a greater role
10 to imports than is truly warranted. Data limitations also
11 restrict my ability to incorporate pricing effects of wind
12 and thin-film generated electricity. This means I'm not
13 fully capturing all grid parity effects and consequently I'm
14 attributing some of that price impact to imports. The
15 models estimated using a structural vector auto regression,
16 vector arrow correction model. Now that's a mouthful.

17 In English, it's an econometric specification
18 that allows the dynamic relations in groups of economic time
19 series variable to be modeled. It allows one to distinguish
20 cost-driven technological change to the supply curve from
21 those driven by imports. The model also controls for doing
22 inside changes. Changes in cost of raw materials, prices of
23 alternative sources of energy and state subsidies. The
24 statistical approach was pioneered by two economics who
25 recently were awarded the Nobel Price for their research.

1 total imports across both the full 2012 to 2016 period of
2 investigation and the most recent three year period.

3 Moreover, Canadian exports to the United States
4 also declined sharply in the first half of 2017. The second
5 fact is that Canadian producers have had a symbiotic
6 relationship with the U.S. solar industry. Heliene and
7 Silfab will describe there are no actions with both Suniva
8 and SolarWorld.

9 And Canadian Solar has invested hundreds of
10 millions of dollars in the U.S. solar industry, including
11 through its acquisition of Recurrent Energy. These facts
12 require the Commission, in accordance with both the NAPS
13 Implementation Act and the NAP itself to render a negative
14 determination with respect to Canadian imports -- even if
15 the Commission makes an affirmative finding as to global
16 imports.

17 This is because U.S. law requires the Commission
18 to exclude Canadian imports from its injury findings if
19 either: 1 -- Imports from Canada do not account for a
20 substantial share of total imports or 2 -- Those imports do
21 not contribute importantly to the serious injury or threat
22 thereof caused by imports.

23 Canadian imports did not meet the first test
24 because on the basis of any measure -- Canada has never,
25 never ranked among the top five sources of U.S. imports. In

1 fact, they have never ranked even among the top ten.

2 Furthermore, Canadian producers and exporters of
3 solar modules have worked with their U.S. counterparts to
4 benefit the U.S. industry and market. They thus have not
5 contributed importantly to any alleged serious injury or
6 threat thereof. I will be pleased to answer your questions.

7 STATEMENT OF PAOLO MACCARIO

8 MR. MACCARIO: Good afternoon Commissions, my
9 name is Paolo Maccario. I'm the General Manager and Chief
10 Operating Officer of Silfab Solar, a manufacturer of solar
11 modules located in Ontario, Canada. We produce
12 state-of-the-art solar modules containing high-efficiency
13 cells and are proud of our high-quality, fully automated and
14 efficient manufacturing process.

15 Our limited imports into the United States, like
16 all Canadian imports, help to meet the needs of the strong
17 and growing U.S. solar energy market.

18 We have worked very closely with Suniva over the
19 past three years and we are one of the largest creditors in
20 its bankruptcy. In 2014, we began producing Suniva-branded
21 modules through a toll-processing arrangement. Suniva
22 provided us with cells and we assembled those cells into
23 modules for Suniva to import back into the United States.

24 Suniva also sold us a very small quantity of
25 cells for our own use and sale under our own brand to our

1 customers. We tried contractually to purchase many
2 additional cells from Suniva, but they were unwilling or
3 unable to sell us larger quantities.

4 In sum, our relationship accounted for us
5 producing a majority of Suniva total module sales in 2015
6 and 2016. And we expanded our capacity twice, just for
7 them.

8 I would like to provide some additional details.
9 First, as you have heard most end customers require the
10 delivery of modules, not of cells. And as you have heard
11 before Suniva was able to produce more cells than modules in
12 2015 and 2016.

13 Accordingly, Suniva needed our help to assemble a
14 large portion of its cells into modules in order to meet the
15 needs of the U.S. customers.

16 Matt Card, who testified for Suniva, stated more
17 than once that our modules were the best that they every
18 sold.

19 Second, I know from my personal experience that
20 Suniva struggled to develop its own module manufacturing
21 assembly in Saginaw, Michigan. Silfab provided an easy fix
22 to those difficulties, including being next to Michigan and
23 providing just-in-time delivery of our modules.

24 Regrettably, as detailed in my confidential
25 Declaration submitted to the Commission, our partnership

1 suffered from quality and volume problems with Suniva's
2 solar cells. Notwithstanding that, we continue to do
3 business with Suniva as its troubles mounted.

4 For example, as recently as early 2017, Suniva
5 requested us to reserve additional module production
6 capacity. But, they failed to meet their promises and our
7 expectation. Accordingly, in the end it has been Silfab and
8 our employees, not Suniva, that have been harmed by our
9 relationship, thank you.

10 STATEMENT OF MARTIN POCHTARUK

11 MR. POCHTARUK: Hello, my name is Martin
12 Pochtaruk, and I'm the President and founder of Heliene in
13 Sault Ste. Marie, Canada. Heliene is a premium-quality
14 manufacturer of the solar modules.

15 We were the first to manufacture solar modules in
16 Canada, back in 2010. More recently, we are also
17 manufacturing modules in Mountain Iron, Minnesota.

18 Our company opposes the imposition of a safeguard
19 remedy on solar modules from Canada. Imports from Canada
20 have not injured, nor do they threaten to injure Suniva and
21 SolarWorld. In fact, the small Canadian solar module
22 industry is a vital part of an integrated North American
23 market and a source of much-needed capital, technology and
24 know-how.

25 We are growing the U.S. market for solar products

1 to the benefit of producers on both sides of the border.
2 Heliene, as I said before, currently operates a solar module
3 manufacturing facility in Iron Mountain, Minnesota. We
4 entered the Minnesota market in 2015, initially through
5 contract manufacturing with Silicon Energy, the prior
6 operator of the plant to exited the industry in early 2017.

7 We stepped in to keep the Minnesota plant
8 running, leasing the plant and equipment from the City of
9 Mountain Iron. Our production in Minnesota involves the
10 assembly of solar modules and was supported by the "Made in
11 Minnesota" program, which seeks to attract manufacturing
12 jobs to Minnesota.

13 While currently we employ 10 employees, with the
14 investment in a new manufacturing line for solar modules we
15 are expanding that number to 75 by the end of this year.

16 The demand for solar energy is growing in
17 Minnesota with a forecast of 800 megawatts of new solar
18 energy projects this year.

19 If a Section 201 remedy were implemented however,
20 my Minnesota factory will need to be closed and our
21 expansion, as already announced, cancelled as U.S. solar
22 cell producers cannot meet the growing U.S. demand,
23 requiring us to procure solar cells in the international
24 market.

25 Finally, my experience with Petitioners

1 highlights the close relationships among the Canadian and
2 U.S. solar industry participants. When Heliene started its
3 module manufacturing operations in 2010, we sourced solar
4 cells from Bosch in Germany -- later acquired by SolarWorld,
5 and from Suniva in the United States. We were also
6 initially qualified, as a toll processor, to manufacture
7 modules in Canada for Bosch.

8 While we continued to buy solar cells from
9 SolarWorld until 2016, we dropped Suniva as a cell supplier
10 in 2013. Suniva's cell quality had become erratic due to
11 excessive fragility, and we increasingly experienced higher
12 than acceptable cell breakage.

13 These quality-related problems coincided with a
14 period of rapid growth at Suniva, who unable to secure
15 high-quality, mono-silicon wafers from its established
16 suppliers Suniva apparently began purchasing less-reliable
17 wafers on the spot market. This adversely impacted Suniva's
18 products, causing however, significant business problems and
19 manufacturing inefficiencies to us by Heliene.

20 Thank you and I will be glad to answer questions.

21 STATEMENT OF VINCENT AMBROSE

22 MR. AMBROSE: Good afternoon Commissioners. My
23 name is Vincent Ambrose, I am the General Manager for North
24 America for Canadian Solar, Incorporated. Canadian Solar is
25 a global company that is listed on the NASDAQ and its

1 headquarters are in Ontario, Canada.

2 We are committed to and invested in the U.S.
3 solar energy market where we have over 200 employees. In
4 2015 we acquired Recurrent Energy, a developer of more than
5 1.9 gigawatts of utility-scaled projects in the U.S. for 265
6 million dollars.

7 Canadian Solar opposes the imposition of the
8 safeguard remedy on solar modules from Canada. Our imports
9 into the United States from Canada are small, and support
10 the growing U.S. solar energy market. They have not
11 contributed to serious injury to the U.S. industry.

12 In 2010 we opened up our sole Canadian
13 manufacturing facility, Canadian Solar Solutions in Guelph,
14 Ontario, to serve the large-scale utility market in Canada.
15 We do not produce CSPV cells in the Guelph facility --
16 rather we principally assemble imported CSPV cells into low
17 to medium efficiencies 72 cell modules for utility scale
18 customers.

19 Ontario's feed-in tariff or FIT inspired Dr.
20 Shawn Qu, our Founder and CEO, to invest in the Guelph
21 facility. If FIT sought to replace coal-powered electricity
22 in Canada and to spur investment in Ontario's renewable
23 energy sector, Dr. Qu, a Canadian citizen, opened the Guelph
24 facility to return jobs to Canada.

25 Notwithstanding that our production costs in

1 Canada were higher than our Asian facilities. We focused
2 operations during 2010 through '13 mostly on the Canadian
3 market which grew substantially due in part to the FIT.

4 However, like the broader Canadian solar
5 industry, production and production capacity at the Guelph
6 facility declined significantly since 2013. This is
7 principally due to Canada's curtailment of the FIT. From
8 2014 to the middle of 2016, Canadian Solar Solutions
9 reoriented toward supporting our investments in other
10 markets.

11 This included the United States, where we focused
12 our limited U.S. imports from Canada on meeting unsatisfied
13 U.S. demand for utility scale solar. For this reason we
14 have not historically competed in the U.S. market with the
15 Petitioners.

16 Over the past year we have substantially scaled
17 back our Guelph operations due to the high Canadian
18 production costs and we do not foresee this changing.
19 Indeed in September, 2016 the Guelph plant terminated 130
20 production-related employees and the facility is shifting
21 toward research and development. Thank you for the
22 opportunity to speak with you.

23 STATEMENT OF CRAIG LEWIS

24 MR. LEWIS: Good afternoon Commission, my name is
25 Craig Lewis and I am a partner with Hogan Lovells appearing

1 here today on behalf of the Canadian solar companies.

2 I would like to address two points with respect
3 to the role of Canadian imports. First, it's vitally
4 important that the Commission properly determine the scope
5 of imports that are subject to any NAFTA-related exemption.

6 The United States, Canada and Mexico carefully
7 negotiated the special safeguards provisions in NAFTA with a
8 clear intention that goods originating from the respective
9 countries would mutually benefit from the agreement's
10 special safeguard provisions.

11 The terms of that agreement are now part of U.S.
12 law and Suniva and SolarWorld cannot be permitted to nullify
13 the benefits provided under the agreement through
14 application of an inconsistent rule of origin.

15 Second, U.S. law clearly establishes not only
16 that cells manufactured in Canada are Canadian origin but
17 modules assembled in Canada with cells sourced outside of
18 Canada are also Canadian origin for purposes of any
19 safeguard proceeding.

20 As we described in detail in our pre-hearing
21 Brief the NAFTA original and marketing rules establish that
22 such modules are Canadian origin for all custom's purposes
23 including global safeguard proceedings.

24 U.S. Customs and Border Protection rulings
25 confirm this fact. The Canadian government in its

1 submission to the Commission has confirmed this fact,
2 SolarWorld concedes it in its pre-hearing Brief and Suniva
3 is now lobbying for amendments to the NAFTA rules to change
4 the result.

5 There could be no clearer admission that the law
6 as currently enforced does not support Suniva's claims on
7 origin. Thank you.

8 STATEMENT OF AARON HALL

9 MR. HALL: I am Aaron Hall, President of Borrego
10 Solar founded in 1980. Borrego Solar is one of the leading
11 U.S. companies providing engineering, procurement and
12 construction services, what is referred to as EPC services
13 for large-scale solar solutions.

14 Borrego Solar consistently ranks among the top
15 five largest providers of non-residential distributed
16 generation solar energy systems in the United States. That
17 makes Borrego Solar among the very largest solar module
18 customers for the commercial segment of the U.S. market.

19 Because the outcome of this trade case might have
20 significant adverse consequences for the market, I came to
21 Washington D.C. to participate in this hearing so that you,
22 the Commissioners, have the proper factual understanding of
23 the U.S. solar energy business when conducting your analysis
24 and rendering your determination.

25 I want to begin by reiterating an important fact

1 that you have heard before but bears repeating. The claim
2 by Suniva and SolarWorld that every single imported solar
3 module has an adverse effect on their operations is false.

4 It is completely false because for many customers
5 Suniva and SolarWorld cannot even attempt to compete for the
6 business because they are not qualified to do so. Suniva
7 and SolarWorld failed to meet our customer's qualification
8 standards and so cannot bid for our customer's business.

9 It is important to understand that for many
10 projects the decision as to which solar module supplier
11 should be chosen is often out of our hands. For many
12 projects our customer and their finance partners insist on
13 making the final decision about the solar panel supplier.

14 The reason is straightforward. Many of our
15 larger solar energy installation projects have long-term
16 owners who count on solar modules performing for twenty to
17 thirty years. It is in their financial interest to
18 understanding the long-term reliability and expected
19 performance of the modules and the system as a whole and the
20 ability of the supplier to perform on its contractual
21 obligations.

22 Accordingly, for many of these projects we have
23 to ask the supplier to provide documentation, mostly from
24 third party labs on expected performance of their solar
25 panels as well as information on their capacity, which can

1 be a risk factor for their ability to meet project schedule
2 delivery requirements.

3 What this means is that these larger customers
4 have their own list of approved solar module suppliers. I
5 have seen such lists for multiple larger customers. And
6 since I have started I have never seen SolarWorld's name or
7 Suniva's name on any of these lists.

8 In the eyes of these larger customers and their
9 finance partners, neither SolarWorld nor Suniva has ever had
10 the proper accommodation of technical specifications and
11 performance and supply capacity that these customers and
12 their financial partners demand.

13 Please understand that these customer and
14 investor generated supplier lists have nothing to do with
15 the unit price of the individual solar panel and rather
16 focus on the technical features and quality of the solar
17 panels and the overall reliability of the supplier.

18 And indeed, with our own customers, the final
19 unit price of the solar panel is only one part of a
20 complicated decision-making process that is undertaken when
21 deciding which solar technology and which supplier to choose
22 for the project.

23 Our customers are installing the solar energy
24 systems because they want to achieve long-term savings from
25 the solar energy. By definition, such long-term savings

1 incorporates total system performance. This analysis in
2 turn depends on a host of factors including conversation
3 efficiency, how much direct sunlight is converted to
4 electricity, specific yield, how much electricity will be
5 produced per kilowatt installed, module electrical
6 degradation, including light induced integration and module
7 physical size.

8 And for many of these important performance
9 attributes the solar panels from Suniva and SolarWorld do
10 not stand up to many of the imports. This is not just my
11 opinion, in fact there are subjective third-party sources
12 that evaluate these very types of performance metrics for
13 different types of solar panels and those third party
14 evaluation reports demonstrate that the solar panels
15 offered by Suniva and SolarWorld simply do not have
16 comparable performance results.

17 Most notably, their modules would be expected to
18 produce less kilowatt hours per kilowatt installed.
19 Consequently, in many cases, the project owners' independent
20 engineers would therefore report lower production and lower
21 financial benefit with these modules which means the price
22 we can charge for our systems is reduced since the asset is
23 worth less.

24 As I noted in my declaration that I provided as
25 part of the KOPIA pre-hearing Brief, I echo some of the

1 frustration from some of the witnesses regarding their
2 procurement experiences. In their business with us,
3 SolarWorld failed to deliver on time, change the product we
4 had ordered, did not communicate well throughout the
5 process and failed to even attempt to mitigate any of the
6 pain we the customer and our customers experienced as a
7 result.

8 These issues seemed to be pervasive in the
9 company culture and involved even their most senior
10 management. As a result, we only consider working with
11 SolarWorld when there is a customer mandate for
12 American-made product.

13 In short, the real world experience of large
14 commercial segment customers like Borrego Solar, disproves
15 the claims of Suniva and SolarWorld that every solar panel
16 is functionally equivalent to every other solar panel and
17 therefore the unit price of the solar panel dictates the
18 customer's purchase decision -- this is not how the market
19 works. That concludes my statement, I look forward to
20 questions.

21 STATEMENT OF JAMES DURLING

22 MR. DURLING: Good afternoon, my name is James
23 Durling appearing today on behalf of KOPIA and its member
24 companies. KOPIA wholly endorses the arguments made by the
25 other Respondent parties. But with my testimony I would

1 like to address the novel issue of the Korea exclusion under
2 the KORUS FTA.

3 Although the Commission has never before
4 addressed the statutory provision, the language is quite
5 clear. The Commission must determine whether Korean imports
6 considered alone are themselves a substantial cause of
7 serious injury.

8 Notwithstanding SolarWorld's disingenuous
9 argument to the contrary, the statute unambiguously requires
10 the Commission to make this finding and report it to the
11 President. Note that Congress used the same substantial
12 cause standard that governs global safeguards.

13 The statutory definition of this key phrase shows
14 that substantial cause means a cause that is both important
15 and not less than any other cause, both parts of the test
16 must be met. But in this case Korean imports do not meet
17 either part of the standard.

18 At the outset I note that this analysis only
19 becomes necessary if the Commission has already made an
20 affirmative determination for global imports and I also
21 stress that we do not argue that other imports are in fact a
22 substantial cause of any injury, they are not.

23 Rather our point is that if it reaches the Korea
24 exclusion issue, the Commission must consider the Korean
25 imports relative to the imports from other countries to

1 determine if Korean imports are themselves a substantial
2 cause.

3 The volume of Korean imports was not important.
4 The volume and market share of Korean imports were modest
5 throughout most of the period. The somewhat larger increase
6 in 2016 can be explained by Korean imports that 1 -- went to
7 the utility segment which the domestic industry has never
8 competed; 2 -- represented a special technology that
9 domestic producers could not offer and 3 -- consisted of 72
10 cells modules at a time the domestic industry was
11 completely sold out of this particular product.

12 Together, these three factors accounted for over
13 95% of the volume gained by Korean imports in 2016. The
14 prices of this limited volume of Korean imports were also
15 not important. The average unit value of imports from Korea
16 was consistently higher than other sources and Korean
17 imports generally oversold domestic pricing.

18 Nor were the Korean imports they caused not less
19 than any other cause. There were several other more
20 important specific causes. Several of these causes were
21 discussed earlier today, including the impact of bad
22 business decisions by the domestic producers and factors
23 other than global imports that largely explained the price
24 declines.

25 But when considering Korea alone, the Commission

1 must also consider the role of imports from countries other
2 than Korea. Korean imports are much less an important cause
3 than imports from other countries from several perspectives.

4 First, the volume of Korean imports has been
5 consistently much smaller than other imports. Second, the
6 prices of Korean imports were higher than imports from other
7 sources and the patterns of underselling were very
8 different.

9 Third, we have submitted an economic model that
10 quantifies the relative impact of Korean imports compared to
11 imports from the rest of the world. Professor Edward
12 Ballestere used an analytic frame more commonly used by the
13 Commission to compare and quantify the relative impact of
14 these two different import sources.

15 His baseline scenario shows the Korean imports
16 represented only 8.5% of the total effect compared to
17 imports from other countries. Professor Ballestere is here
18 today to answer any questions about his report.

19 Finally, I note that in his testimony earlier
20 today Dr. Kaplan misuses the Ballestere report. The Compass
21 model in the Ballestere report did not seek to consider
22 factors other than imports. That is what Professor Prusa
23 did in his report.

24 Because Compass ignores all of the other factors
25 besides imports, Compass cannot correctly measure the impact

1 of imports on the domestic industry. It exaggerates the
2 impact of imports.

3 The Ballestere reports only addressed the
4 relative contribution of Korean imports versus other
5 imports. Compass, the Compass model can appropriately
6 address that narrow issue -- an issue that Dr. Kaplan does
7 not address at all, thank you.

8 STATEMENT OF STEVE O'NEIL

9 MR. O'NEIL: Good evening Commissioners, my name
10 is Steve O'Neil, I'm from Montana but I am living in
11 Singapore where I am currently CEO of REC which standards
12 for Renewable Energy Corporation.

13 REC is actually one of the most experienced CSPV
14 companies in the world that was founded over 20 years ago in
15 Europe and we are well-known for our exceptional quality,
16 reliability and pioneering technologies.

17 We are the only PV manufacturer in Singapore and
18 so today I'll save you time and it is my pleasure to
19 represent not just REC but also the nation of Singapore
20 which is a small, but vital, U.S. trading partner.

21 Our company is a member of SEIA and we endorse
22 their arguments, however should you rule against SEIA the
23 U.S. Singapore FTA requires that the Commission make a
24 separate finding for Singapore.

25 I'll explain three special reasons why Singapore

1 should be exempted. Firstly, Singapore is the only CSPV
2 exporter with whom the U.S. enjoys a consistent trade
3 surplus in favor of America.

4 America's trade surplus on goods and services
5 with Singapore was close to 20 billion dollars last year.
6 This supports 215,000 American jobs across many industry
7 sectors. Singapore consistently ranks as the number one
8 nation in ease of doing business.

9 The unique U.S. Singapore Free Trade Agreement
10 has not only the highest standards of IP protection which
11 safeguards U.S. patents, manufacturing and innovation, but
12 also strong and enforceable labor standards and
13 environmental commitments.

14 Secondly, Singapore and REC provide niche high
15 performance multi-crystalline PV products not offered by the
16 domestic industry. By our account Singapore has a small
17 U.S. market share of less than 4% and this share has been
18 declining since 2015.

19 Our products are sold at a price premium and we
20 supply to market segments not served by the domestic
21 industry.

22 Thirdly, Singapore does not pose a circumvention
23 risk because of Singapore's very small size, high costs and
24 strict U.S. customs enforcement. RAC's decision in 2008 to
25 move from Europe to Singapore was a complex two-year, 1.8

1 billion dollar investment.

2 REC products are wholly made in Singapore in
3 highly automated, integrated wafer cell module operation
4 running at near full capacity utilization. Today it would
5 be nearly impossible for a new CSPV producer to transplant
6 production to Singapore.

7 Singapore is a steadfast and reliable partner to
8 the U.S. and I urge the Commission to examine imports from
9 Singapore alone in their proper context. Thank you for your
10 time.

11 STATEMENT OF SPENCER GRIFFITH

12 MR. GRIFFITH: Good afternoon, my name is Spencer
13 Griffith of the law firm Akin Gump. I'm here today on
14 behalf of the Chinese Chamber of Commerce. The Chamber's
15 members include a wide range of producers of solar cells and
16 modules in China.

17 As an initial matter, Suniva's Petition in this
18 case is an outrageous misuse of trade laws. One of Suniva's
19 creditors who is financing this Petition sent a letter to
20 CCME offering to cut off financing for this trade case and
21 thus have the case terminated in exchange for CCME members
22 purchasing about 50 million dollars' worth of equipment from
23 Suniva that secured that creditor's investments.

24 The U.S. trade laws are not designed or intended
25 to allow private parties to file a case in order to

1 financially benefit themselves.

2 Turning to the threat analysis -- the testimony
3 that you have heard today from this expert panel of
4 witnesses confirms that imports do not threaten to be a
5 substantial cause of serious injury. The segmentation of
6 the market, Petitioner's various missteps, and numerous
7 other factors that Dr. Prusa and others have testified to
8 including technological advancements and grid parity that
9 are more important causes of injury than imports, all apply
10 equally to this Commission's threat analysis as well.

11 In addition however, both the U.S. and global
12 markets for solar have been and are projected to continue to
13 grow strongly. Both GTM and the U.S. DOE project that the
14 U.S. market will continue to grow strongly in future years
15 and Petitioners here today have said the same thing.

16 Moreover, the record shows that demand globally
17 is likewise projected to grow strongly, a point that
18 Petitioners also agree with. The DOE estimates, for
19 example, that global installations will continue to grow
20 massively to up between 69 and 109 gigawatts annually by
21 2020.

22 Likewise, both the Chinese and Indian markets,
23 which along with the U.S. are now the three largest markets
24 in the world, are also projected to grow massively. The
25 Chinese government target for example for 2020 is over 100

1 gigawatts and given current market expectations that target
2 is likely to be reached even sooner than 2020.

3 The Indian market is likewise expected to
4 continue to boom. The Indian government plans to have 100
5 gigawatts installed by 2022. In addition, imports from
6 China into the U.S. have been and will continue to be
7 constrained by the U.S. Solar 1 and Solar 2 Orders in place
8 against China.

9 The imposition of those Orders resulted in a
10 decline in the volume of Chinese imports entering the U.S.
11 and those imports are projected to plummet in 2017 and 2018
12 thus constraining future import volumes.

13 Finally, the third country trade remedy orders in
14 place against Chinese exports will not result in a diversion
15 of exports to the U.S. The EU Orders are currently subject
16 to an interim review by the Commission -- the European
17 Commission. That is expected to phase out those measures
18 over time.

19 Also, the EU Orders have been in place for some
20 time now, some years which means the markets have already
21 adjusted to the presence of those Orders.

22 Similarly, while a new Petition was filed
23 recently by India against Chinese exports, previous Indian
24 solar Petitions have been dismissed and given that the
25 Indian government plans to massively expand solar power by

1 2022, it is likely that this new Indian investigation will
2 likewise not result in the imposition of duties.

3 In short, imports do not pose a clearly imminent
4 threat to be a substantial cause of serious injury, thank
5 you.

6 STATEMENT OF DEEP PATEL

7 MR. PATEL: Let it Shine, a book written by John
8 Perlin, documents the 6,000 year story of solar energy. The
9 book shows how today's solar revolution builds on the
10 efforts of countless generations of innovators such as
11 Albert Einstein, who received a Nobel Peace Prize for the
12 photo-electric effect.

13 In 1931 Thomas Edison said, "I'd put my money on
14 the sun and solar energy. What a source of power." Bell
15 Labs in 1954 created the first silicon solar cell with the
16 vision that silicon solar cells could eventually power the
17 entire world.

18 We stand here today on the heels of a rapidly
19 growing world-wide movement and a rich 6,000 year old
20 history to power our lives with sunshine. The decisions
21 made in this case is either going to keep affordable solar
22 in the hands of the people or stifle the energy of the sun.

23 Hi, my name is Deep Patel. I'm the Founder and
24 CEO of GigaWatt, a solar company I started out of my
25 parent's garage in 2006 and grew it into a company that

1 employs 25 people. I'm a small business owner and there are
2 small business owners just like myself referred to by
3 industry analysts as the long-tail, a vast array of
4 thousands of small solar companies across the nation.

5 Collectively we employ a majority of the people
6 working in the solar industry and have an intimate
7 relationship with the people and the customers that are
8 deciding to install solar panels on their homes, businesses,
9 churches and schools.

10 Over the last ten years in this industry, sitting
11 at the kitchen table with my customers, I have learned a lot
12 of how and why people buy solar. What I have concluded is a
13 decision to go solar is like any other investment. The
14 numbers have to make financial sense.

15 In my pre-hearing Brief I show how the Electric
16 Utility Lobby in 2006 stepped up their campaign to slow down
17 distributed solar power across the country by changing net
18 metering policies and implementing unfair rate structures
19 designed to diminish the financial benefits of investing in
20 a rooftop solar system.

21 These policy changes have injured the entire
22 distributed solar industry. In conclusion, adding tariffs
23 to solar cells and modules will be like adding salt to a
24 wound to the distributed solar industry which has already
25 been damaged by utility net metering policy changes and

1 unfair rate structures.

2 It is estimated that up to 80,000 American jobs
3 will be jeopardized and we would be going against the advice
4 of a great inventor, Thomas Edison, by not putting our money
5 on the sun and solar energy. Thank you.

6 MR. NICELY: Madam Chairman that concludes our
7 presentation.

8 MR. BISHOP: Madam Chairman we still have a
9 non-party in opposition to the Petition. Miss Wu would you
10 please come forward? This is Jio Wu, Director of
11 International Business Development with PT Sky Energy
12 Indonesia. Miss Wu, you have three minutes for your
13 testimony.

14 STATEMENT OF JIO WU

15 MS. WU: Okay. So good afternoon, my name is Jio
16 Wu from PT Sky Energy Indonesia. I'm here on behalf of my
17 company to clarify that the exports of Sky Energy Indonesia
18 to America do not jeopardize the profit of any other U.S. PV
19 producers.

20 Here come the reasons. The first -- the market
21 share of Sky Energy in the U.S. is not big enough to be
22 considered as competitors of U.S. PV producers. In 2016 the
23 share above value of Sky Energy export to the U.S. was just
24 0.02 percent. Why it was just 0.01% in 2015 comparing to
25 the world export to the U.S.

1 And by the volume the percentage was even much
2 smaller -- less than 0.0001% in 2015. Why it was 0.0002% in
3 2016. Why back to 2014 the export of Sky Energy to the U.S.
4 is just 0.

5 The second, the price of solar module we export
6 from Sky Energy to the U.S. is averaged really higher than
7 the price recommended by Suniva in their Petition under
8 Section 201.

9 The third, the modules that Sky Energy export to
10 the U.S. mainly are small size modules, below 200. It's
11 just such as 5 watt, 10 watt, 100 watt, et cetera -- not
12 like those big PV producer which focus on big modules. They
13 mainly produce from 260 watt to 340 watt.

14 And the fourth, the client base of Sky Energy and
15 those cells, the big PV producers in the U.S. are not the
16 same. Sky Energy's end users are mainly in such individual
17 users as the golf cart, the boat, vehicle, camping, and
18 hunting to name just a few.

19 While all the others such as Suniva are on
20 residential rooftop, commercial buildings, government
21 project and utility? It is quite evident that we can tell
22 although we are both in PV industry, we are respectively in
23 different markets. In other words we are not a competitor
24 at all.

25 The fifth, Sky Energy not only exports products

1 to the U.S. but we also import piles of materials and
2 products from the U.S. companies. For instance, the solar
3 cells of the flexible modules we make are from Sun Power
4 which is one of the biggest and the most famous PV companies
5 in the U.S. And another product is the solar charge
6 controller -- that is from Focus which is also a very strong
7 brand too in the U.S.

8 Sky Energy also produces their products
9 throughout Indonesia based on a formation, the clarification
10 we would like to propose the United States International
11 Trade Commission to exclude Indonesia in general and
12 especially exclude PT Sky Energy from any necessity of --
13 investigations. Thank you very much for your time, thank
14 you.

15 MR. BISHOP: Madam Chairman that concludes direct
16 testimony from this panel.

17 CHAIRMAN SCHMIDTLEIN: Alright thank you very
18 much. I would like to thank all of the witnesses for being
19 here today. And this afternoon we will start with
20 Commissioner Broadbent.

21 COMMISSIONER BROADBENT: Thank you Chairman
22 Schmidtlein. Yeah, this is a great showing of
23 participation. I want to congratulate you all for being
24 very organized and team focused. I think that the
25 presentation worked really well.

1 Mr. Nicely, I may direct some of my questions to
2 you and then you can indicate the folks in your group that
3 may want to respond.

4 MR. NICELY: Thank you.

5 COMMISSIONER BROADBENT: First of all on the
6 definition of domestic industry -- would it be appropriate
7 for the Commission to include the stand-alone module
8 assembly facilities within the domestic industry producing
9 cells, whether or not further assembled?

10 MR. NICELY: Thank you Commissioner Broadbent.
11 In our view it doesn't matter one way or the other. We
12 think that we have shown no matter how you look at the
13 industry, if you consider what Jim Dougan presented to you,
14 we were able to show you that there is no serious injury and
15 that imports are not a substantial cause of any injury that
16 you might find.

17 I would point out, however, that there is an
18 obvious disconnect in what the Petitioners have presented,
19 which is they want to make what is relevant here -- modules
20 that are made from U.S. cells and yet they consider as part
21 of the industry, module producers that depend upon imported
22 cells.

23 Their position on this is internally inconsistent
24 so it is something I think the Commission should consider
25 but I don't think it has an impact on ultimately on how you

1 rule for us.

2 COMMISSIONER BROADBENT: Okay thank you. What
3 accounts for the substantial number of module assemblers
4 leaving the U.S. industry over the period of investigation?

5 MR. NICELY: Well you know, there are about 40
6 companies listed on that map that they presented to you.
7 About half of them are not cell or module producers as they
8 say, if you read their footnotes carefully.

9 So just to think about that for a moment and just
10 to take advantage of your question to talk about something
11 that they presented to you -- there are about 40,000
12 manufacturing jobs -- solar manufacturing jobs in the United
13 States.

14 The cell and module manufacturing portion of that
15 is relatively small. The data on the record is confidential
16 so I can't share it with you but you can see early on in the
17 pages of our Brief that it is a relatively small percentage
18 of that 40 -- about 40,000 manufacturing jobs.

19 Manufacturing jobs in the United States are -- I
20 think Commissioner Williamson asked earlier today what are
21 all of those types of manufacturing jobs in the solar space
22 -- I've got a lengthy list that we can put in our
23 post-hearing Brief to show you.

24 But the racking systems, the tracking systems
25 that Dan Shugar talked about -- there's upstream and

1 downstream manufacturing. But the point is -- but getting
2 to your question about cell and module producers, there are
3 a variety of reasons. We can't detail them all here.

4 The Petitioners have tried to make it out that it
5 is all because of imports. I'll suggest to you that in fact
6 given that there are a number of independent module
7 producers, that some of them have gone out of business
8 because of the anti-dumping and countervailing duty cases
9 against China and Taiwan, so that's again related to your
10 first question about the impact that this case has and how
11 you should look at that part of the industry.

12 But to detail for you every single case, every
13 single company I wouldn't be able to do that here. I am
14 happy to have anybody else who has any information on that
15 talk about it but it would be a company by company analysis.

16 And I think as you can tell from much of what we
17 have talked about, all the industry witnesses have talked
18 about today, there are many instances in a high tech
19 industry in which companies bet on the wrong technology and
20 they pour a lot of money and invest a lot of money into
21 technology that doesn't work out.

22 To then turn around and blame that on imports is
23 a bit of a stretch.

24 MR. POCHTARUK: Commissioner, excuse me, my name
25 is Martin Pochtaruk with Heliene. There's one on the list

1 in Minnesota by the name of Silicon Energy. They didn't go
2 bankrupt, actually decided to wind down due to being only
3 reliant on both Washington and Minnesota related state
4 programs that have disappeared since.

5 We took that factory so that the employees were
6 not lost and the factory is still operating.

7 MR. STOEL: And Commissioner Broadbent this is
8 Jonathan Stoel from Hogan -- you heard this morning
9 testimony from bipartisan senators from Minnesota arguing
10 this exact point and talking about the specific facts
11 related to Mr. Pochtaruk's investment here in the United
12 States.

13 MR. DOUGAN: Commissioner Broadbent, to add on to
14 something that Mr. Nicely said -- this is Jim Dougan from
15 ECS, you know the Petitioners have sort of -- have a
16 somewhat elastic definition of the industry and broaden it
17 when it suits them to include these companies that have gone
18 out of business or have supposedly been affected by imports.

19 They claim in their Brief that a total of 4,800
20 jobs in the solar sector are lost due to these various
21 bankruptcies and so on. 3,500 of those are in related solar
22 technologies so not subject merchandise.

23 But if that is fair game to talk about I think we
24 need to talk about the broader net growth in solar
25 manufacturing jobs in this country. So yes, there have been

1 companies that have gone out of business. Maybe if they bet
2 on bad technology, maybe they were overly reliant on
3 particular regulatory or subsidies but between 2012 and 2016
4 solar manufacturing jobs at large, including all the
5 upstream and downstream increased from 29,742 to 38,121.
6 That's a net gain of 8,400 jobs or about a 28% growth.

7 So if they are going to talk about the jobs that
8 were lost for whatever reason I think we have to talk about
9 there has been a net gain in this industry and that the
10 statistics support that.

11 COMMISSIONER BROADBENT: When you say solar
12 manufacturing -- how are you classifying the installers? Is
13 that manufacturing or is that more of a service?

14 MR. NICELY: That would be considered a service.
15 That's not part of our numbers but I will direct you to the
16 Solar Foundation's report, the annual census that they do
17 that is in our Brief. It is one of the exhibits, 6 or 7 I
18 can't recall.

19 It details the number of jobs in each part of the
20 solar chain -- manufacturing, installing, developing, sales,
21 et cetera, et cetera.

22 MR. DOUGAN: Commissioner that's the source for
23 the number that I just read out to you. So it is one of the
24 first exhibits.

25 MR. WERNER: This is Tom Werner, I would add two

1 quick comments. One, insufficiently differentiated and
2 secondly, lack of scale.

3 COMMISSIONER BROADBENT: Okay, thank you very
4 much. Can I get some descriptions of the bidding process
5 for utility project? Is the bidding process in a utility
6 market any different than sales to the residential,
7 commercial markets?

8 MR. CORNELIUS: Sure, glad to speak to that and
9 in fact I think you will hear some differences from how you
10 have seen that process described this morning. Typically,
11 we specify the designs of a module that is required for a
12 utility solar project some three years in advance of its
13 starting construction.

14 That's often required for a combination of
15 purposes, one of those being the designs of the facilities
16 to support their applications to interconnect to the grid
17 and also for purposes of obtaining the permits that are
18 required to construct these facilities.

19 So as long as three years before you would
20 commence construction in many situations we need to have a
21 fairly specific view of what types of solar panels we would
22 employ. As we get closer to construction, approximately 12
23 months from construction start we commence a request for
24 proposals for supply.

25 That timetable is customarily set for the needs

1 to be able to prepare issue for permit drawings and to
2 obtain financings for those projects. Six months usually is
3 the absolute latest point before the start of construction
4 where we can make a selection of a module.

5 And as an example in June of this year we ordered
6 modules for projects we will commence construction on in
7 February of 2018.

8 Incidentally, pricing for our utility projects is
9 never the same if they are procured at the same time as a
10 distributed solar project so another contention that you had
11 heard this morning was that utility solar prices and
12 distributed solar prices are indistinguishable.

13 And I can also state and share data to
14 substantiate this that the pricing that we obtain when we
15 are in contemporaneous requests for proposals for both,
16 utility solar and distributed solar applications -- results
17 in different prices for those modules even if they follow
18 the same 72 cell form factor.

19 Lastly, to speak to some of the statements made
20 by the Petitioners around their readiness to supply 72 cell
21 modules for purposes of utility applications -- because of
22 the timeline that I have described and our scale
23 requirements which require us to procure modules at
24 significant scale for projects that customarily reach 200
25 megawatts of scale or more, do not allow us to consider

1 suppliers for whom the supply they provide represents a
2 significant percentage of their supply -- and that's a
3 critical determinant of the vendors who we consider when we
4 issue an RFP.

5 MR. HAUBENSTOCK: Arthur Haubenstein with
6 8minutenergy, just adding quickly. We are the entities that
7 run the RFO's for procurement of utility scale cells when we
8 are doing our utility scale projects although our
9 contractors who actually build the projects, the EPC's,
10 engineering, procurement, and construction projects are the
11 ones who enter into the contracts.

12 We determine the RFO terms, we determine the
13 terms of the contracts -- we pass those contracts on to our
14 APC's. We have a screening process that we go through
15 before we even begin to consider price. That includes
16 quality -- that includes bankability -- that includes the
17 capacity factor that Craig Cornelius just referred to --
18 those factors have all eliminated Suniva and SolarWorld from
19 consideration before we begin to consider price.

20 CHAIRMAN BROADBENT: Okay thank you, my time has
21 expired.

22 CHAIRMAN SCHMIDTLEIN: Okay thank you. Let me
23 just follow-up on that just so that I can have a little bit
24 of context. So can you give me an idea for NRG Energy how
25 much of the market do you have with regard to the utility

1 projects here in the United States? Are you a big company?

2 MR. CORNELIUS: Yes, we have the largest
3 portfolio of utility's solar projects in the United States
4 today. So last year we interconnected approximately at
5 least 750 megawatts worth of gross capacity that we now own.

6 CHAIRMAN SCHMIDTLEIN: In 2016?

7 MR. CORNELIUS: In 2016.

8 CHAIRMAN SCHMIDTLEIN: So can you give me a rough
9 idea of what the percentage of the total number of projects
10 that was in 2016, just to put it into context?

11 MR. CORNELIUS: The total number of discreet
12 individual sites that made up that 740 megawatts?

13 CHAIRMAN SCHMIDTLEIN: I guess or you could do it
14 on the basis of energy like you are doing, however you want
15 to do it so that your projects present -- I would be
16 interested in both numbers actually.

17 MR. CORNELIUS: Understood. Most commonly when
18 we talk about the utility solar segment for example, we are
19 talking about projects that are larger than 20 megawatts in
20 size. So of the 740 megawatts that I quoted from last year
21 one block of projects was itself in excess of 500 megawatts
22 in gross capacity.

23 So and then say for example for our last major
24 module procurement that we conducted at the end of last
25 year, it was a 200 megawatt module order which itself is

1 somewhat instructive when we speak about what the causes for
2 price deflation are and I would be glad to get into it at a
3 later time.

4 CHAIRMAN SCHMIDTLEIN: But can you give me an
5 idea just overall -- maybe Mr. Nicely you have an idea,
6 overall in 2016 how much was installed by utilities in the
7 United States?

8 MR. CORNELIUS: So 10 gigawatts roughly speaking.

9 CHAIRMAN SCHMIDTLEIN: Total?

10 MR. CORNELIUS: Of total utility solar
11 installations completed last year.

12 CHAIRMAN SCHMIDTLEIN: Okay.

13 MR. CORNELIUS: Of about 15 gigawatts worth of
14 total projects completed. And I suspect though I am not
15 familiar with these exact numbers, that of those 10
16 gigawatts the vast majority of those were in projects that
17 were larger than 20 megawatts each.

18 CHAIRMAN SCHMIDTLEIN: Okay.

19 MR. CORNELIUS: And that's an important
20 distinction because part of what we have heard today is a
21 contention from the Petitioners that they were crowded out
22 of the utility solar market even as we have heard from one
23 of them that they were not qualified for large-scale
24 projects.

25 So if large-scale projects made up the bulk of

1 that 10 gigawatts and they themselves were in position to be
2 able to supply a large project like a 200 megawatt project,
3 then they weren't crowded out, they simply weren't in a
4 position to be able to supply those projects at all.

5 CHAIRMAN SCHMIDTLEIN: Right.

6 MS. GRACE: This is Amy Grace from EF. Last year
7 it was 10 gigawatts was the utility scale, 80 to 85% of that
8 was larger than 20 megawatts.

9 CHAIRMAN SCHMIDTLEIN: 80 to 85% you say, okay.
10 And in your experience when those projects are bid are they
11 asking specifically for a multi-crystalline or
12 mono-crystalline module?

13 MR. CORNELIUS: When we bid or play the role that
14 we play in the value chain typically we are offering a price
15 to an end-use customer such as a utility or a commercial
16 company. And when we do our design and estimating work, we
17 make assumptions about the most likely project design that
18 we could employ to meet that price.

19 And we do take into consideration individual site
20 characteristics. In some instances it can be supplied by
21 multi-crystalline silicone panels. In other instances they
22 cannot. So for example in the case of the 200 megawatt
23 project that I decided from the end of last year -- that
24 project really could only have been built at prevailing
25 capabilities with either a mono-crystalline silicon solution

1 or a thin film solution.

2 And in point of fact, despite claims to the
3 contrary from the Petitioners we actually had a hard time
4 finding the required availability of the mono-crystalline
5 and silicon panels that were required to build that project
6 and so we build it with thin film modules.

7 CHAIRMAN SCHMIDTLEIN: Okay so it comes down to
8 price. They are not demanding a mono versus a
9 multi-crystalline?

10 MR. CORNELIUS: Do you mean the end use customer?

11 CHAIRMAN SCHMIDTLEIN: Right.

12 MR. CORNELIUS: Who we sell power to?

13 CHAIRMAN SCHMIDTLEIN: Right.

14 MR. CORNELIUS: No for them it is a delivered
15 reliability and price question together.

16 CHAIRMAN SCHMIDTLEIN: Right.

17 MR. CORNELIUS: And there are particular
18 construction methods and site characteristics that will
19 allow for some projects to be built with either
20 mono-crystalline and silicon or multi-crystalline silicon
21 and thin film products.

22 And in some instances, projects can't be built
23 with one of those products based on available land or other
24 characteristics. But something that is important to those
25 customers is the reliability of supply.

1 CHAIRMAN SCHMIDTLEIN: Right.

2 MR. CORNELIUS: And for us when we make a
3 purchase decision we do so expecting to operate a plant for
4 35 years.

5 CHAIRMAN SCHMIDTLEIN: Right.

6 MR. CORNELIUS: And the performance
7 characteristics over time are a very significant
8 consideration which I think Tom will want to address.

9 MR. WERNER: Yes if I could just comment.

10 CHAIRMAN SCHMIDTLEIN: Sure.

11 MR. WERNER: This is Tom Werner. So we have done
12 cumulatively 2.2 gigawatts of utility scale solar in
13 America. The financiers are the people --

14 CHAIRMAN SCHMIDTLEIN: And can you just remind me
15 what exactly Sun Power does. I find it would be helpful
16 when we talk about -- I would like to understand exactly
17 what --

18 MR. WERNER: Absolutely.

19 CHAIRMAN SCHMIDTLEIN: Because I understand there
20 are different services that are being offered and so forth
21 so.

22 MR. WERNER: We make the solar cell. We make the
23 module. We design in some cases, make the balance of
24 system. In many cases we install and we do post-sales
25 support, residential, commercial and utility scale.

1 CHAIRMAN SCHMIDTLEIN: So where are your
2 facilities?

3 MR. WERNER: We have 1,000 people in America. We
4 do research and development headquartered in Silicon Valley.
5 We have offices all over America, Austin, Los Angeles and
6 then throughout the world.

7 CHAIRMAN SCHMIDTLEIN: And so are you
8 manufacturing cells and modules here then?

9 MR. WERNER: We make a small amount of cells in
10 Silicon Valley. We just opened a 25 million dollar R&D
11 facility that we can scale to megawatts and we make the
12 majority overseas.

13 CHAIRMAN SCHMIDTLEIN: And so where do you make
14 most of yours?

15 MR. WERNER: Malaysia and the Philippines.

16 CHAIRMAN SCHMIDTLEIN: Malaysia and the
17 Philippines and has that always been the case or is that
18 recent?

19 MR. WERNER: Originally the Philippines -- no.
20 We started in the Philippines in 2004 and we added Malaysia
21 in 2008.

22 CHAIRMAN SCHMIDTLEIN: Okay.

23 MR. WERNER: So you know on a utility scale the
24 price that we are talking about is price per kilowatt hour
25 which is the price of energy over the life of the system.

1 So the system is usually a 25 year life, sometimes 30 or 35
2 depending on the technology.

3 So the technology makes a huge difference because
4 the level of degradation of the energy production over the
5 life of the system varies by technology. Generally
6 speaking, mono-crystalline and silicon based solar cells
7 like Sun Power degrade less so therefore you produce more
8 energy cumulatively over the life of the system.

9 Typically you get a higher terminal value for
10 mono-crystalline as well at the end of the life of the
11 system so the counterparty is sophisticated and they are
12 modeling not just the original price but the cost of the
13 energy over 25 years.

14 CHAIRMAN SCHMIDTLEIN: So if I'm hearing you
15 correctly, the mono is a preferable module?

16 MR. WERNER: Yeah, and it wouldn't be -- I can
17 explain why for two reasons. Monocrystalline is what it
18 suggests. It's a single crystal. Multicrystalline is cast
19 and therefore has grain boundaries, therefore, is less
20 efficient, meaning it turns less photons into electrons.

21 Secondly, monocrystalline tends to break less in
22 the field. So you can imagine in the field, you have all
23 kinds of temperature extremes. You have weather extremes.
24 If a solar cell breaks in a multicrystalline case, you lose
25 energy.

1 So monocrystalline is preferable from a
2 reliability standpoint over time. To that, you can add the
3 architecture of the solar cell, which is unique in the case
4 of SunPower. The point being that the technology matters a
5 lot for the price of energy. And I can tell you that all
6 the utility buyers buy on cost of energy. Not a single one
7 is modeling just an upfront cost.

8 CHAIRMAN SCHMIDTLEIN: Right.

9 MR. CORNELIUS: If I might just add one last
10 point to what Tom had shared. Not all monocrystalline
11 silicon solar cells are created equal. So, for example,
12 there are a variety of new process techniques that are
13 employed and are innovated every year that are enabled in
14 some cases uniquely by what manufacturing tooling people
15 have on factory floors. And for customers like us, when we
16 make selection choices amongst module vendors, we go deep
17 into the exact process technology they're employing as a
18 basis for forecasting how much electricity those panels will
19 produce over their life.

20 And even within the category of monocrystalline
21 silicon cells, to give you an example in the case of the
22 procurement I described last year, there was a 2 cents per
23 watt difference that we were willing to pay for two
24 otherwise similar 72 cell monocrystalline silicon panels.
25 And the difference between those was our expectation of how

1 they would perform over time.

2 The petitioners for a variety of reasons did not
3 make investments of the kind that would have distinguished
4 their solar cells as the kind more likely to perform better
5 over time. And that is another consideration for companies
6 like ours when we make long term procurement choices.

7 MR. HAUBENSTOCK: Arthur Haubenstein with
8 8minuteenergy. Just real quickly to explain why it is so
9 important that that cost of energy, that's how we get paid.
10 We get paid according to how much energy our products
11 produce. And so, when we purchase cells or modules, we are
12 looking for how much money we are going to make over the
13 lifetime of the project.

14 CHAIRMAN SCHMIDTLEIN: Right. So you heard them
15 this morning state that in their view, the price of multi
16 and mono affect each other. Given what I've heard just now
17 in terms of how these things are priced out, would you agree
18 with that? In other words, if they're competing with -- if
19 they're not being demanded a particular type, but it's all
20 based on cost, aren't they competing with each other? And
21 therefore wouldn't the price affect one versus the other, I
22 mean, each other?

23 MR. WERNER: Sorry, I'll start. Tom Werner. In
24 the utility scale market, sticking with that, you do compete
25 on cost of energy. And quality and reliability have a big

1 deal in terms of cost of energy, because of degradation,
2 lifetime of the system are two huge variables.

3 And so, yes, when the utility customer is doing
4 the calculation of cost of energy, which they typically do
5 independently, they will determine what factors they want to
6 put into their models, and that will depend on the
7 technology as Craig just said. And yes, that will depend on
8 whether it's multi or mono in many cases.

9 CHAIRMAN SCHMIDTLEIN: Because you could have a
10 bidder basing its bid on mono and another bidder basing its
11 bid on multi for the same job, correct?

12 MR. WERNER: Yes. And yeah.

13 CHAIRMAN SCHMIDTLEIN: Right?

14 MR. WERNER: And I should point out at the same
15 time, and almost more importantly, a bigger part of the cost
16 is balance of system and installation. And so, you can also
17 differentiate on more cost effective balance of system,
18 lower cost mounting structures, lower cost electronics,
19 lower cost cabling. You know, SunPower -- often cells to
20 modules to complete solutions, because you can't -- if you
21 stay -- don't innovate, if you just try to compete in one
22 place, you're insufficiently innovating across an entire
23 value chain. And so, other factors like balance of system,
24 cost of capital, speed of install, how soon you get energy,
25 there's a lot of other factors. But yes is the answer to

1 your question.

2 CHAIRMAN SCHMIDTLEIN: Okay, all right, my time
3 has expired. So we will move to Vice Chairman Johanson.

4 VICE CHAIRMAN JOHANSON: Thank you, Chairman
5 Schmidtlein. And I would like to thank you all of you for
6 being here today. I know that the hour's late and we have a
7 ways to go, but it really is very helpful for us to hear
8 from you all. And I have to say the subject is inherently
9 very interesting, which makes it easier at least for me to
10 stay here late into the evening.

11 What are we to make of all the domestic plant
12 closings since 2012? And a list of these plant closings can
13 be seen in the staff report at Table III-3. This seem -- this
14 list seems rather long. What does this tell us about the
15 state of the domestic industry?

16 MR. SHUGAR: Dan Shugar from NEXTracker. If I
17 could jump in here for a sec. When solar got hot, there was
18 a lot of VC investment of venture capital investment in new
19 technologies. It was really interesting. I'd be at the
20 breakfast table every morning and my wife would say, "Hey,
21 look at this solar company that just started and look at
22 that company." And I kept saying like, "They'll be gone in
23 a few years, they'll be gone, they'll be gone, they'll be
24 gone." She's like, "Why are you so negative?"

25 Now I've been in the industry since 1988. And I

1 said, "Because that investment happened from a VC that
2 wasn't really calibrated. It's a new module technology."
3 Some make it and I support ongoing R&D and new ways to make
4 solar, but I -- we work in Fremont is our headquarters for
5 NEXTracker. A lot of these companies were all around us.
6 The ecosystem, I've seen the product. So there were a lot
7 of really not fully qualified companies that got started.

8 As Tom Werner mentioned a few minutes ago, the
9 predominant reason we saw the failures is you didn't have
10 scale with a lot of these companies, where they came in. A
11 lot were start-ups and new ideas, which should be, you know,
12 which is a good thing, but you didn't have, you know, large
13 companies making big sustained investments to getting their
14 products fully qualified, getting their pipelines developed
15 as Craig Cornelius from NRG mentioned, so that they would
16 develop a long term sales funnel.

17 VICE CHAIRMAN JOHANSON: Yes, thanks -- thank
18 you, Mr. Shugar. You mentioned that there has been --
19 basically a winnowing down of the domestic industry for
20 different market reasons, but what about some of the
21 competitors of the domestic industry? Let's state such as
22 in China. I believe that the petitioners this morning
23 contended that there has not been such a narrowing of
24 producers in China. Would anyone like to respond to that?

25 MR. CORNELIUS: In point of fact, I'm not sure

1 that that's actually true. You know, I think -- I'm by no
2 means an expert on the Chinese solar manufacturing complex.
3 I would imagine in your -- somebody from Bloomberg might be
4 able to speak more definitively to this, but what I've seen
5 over 10 years' worth of evolution in the Chinese
6 manufacturing supply chain, including time when I've worked
7 here in the government and we'd had consultations with the
8 Chinese government there, has been a systematic effort by
9 the Chinese government at times to winnow producers whose
10 capacity was too low. And most recently, amongst the
11 incentive programs that the government has passed and
12 renewed in the last year, in the instance of one called the
13 top runner program, it has expressly incentivized higher
14 performing products that could only be made from new
15 technology manufacturing lines.

16 So whereas the picture that's painted is one of
17 significant total growth in manufacturing capacity in China,
18 I think what it misses is the fact that there has been
19 continuous change in the ownership of that manufacturing
20 capacity, that in some instances capacity that is aging and
21 is rarely run is quoted in those gross capacity figures, and
22 that the Chinese government has actually actively looked to
23 try to winnow its supply chain to only those most healthy
24 producers with the most advanced product.

25 MR. SHUGAR: Dan Shugar. Just to just provide

1 one way I like to describe the industry, which has been
2 helpful to people, is you can think of literally 10 or 12
3 years ago, it was where the automobile industry was when
4 Henry Ford started manufacturing model Ts. And so,
5 actually, there was vertical integration that happened then
6 between different aspects of the supply chain. And there
7 were many, many producers.

8 But what happened today, though, the industry's
9 at a real scale. And we're moving to scale like
10 continuously as one of the lowest cost ways to produce
11 energy. So what happened in the automobile industry is
12 over, you know, over that period of time, that there were
13 thousands of producers in the U.S., that then became, you
14 know, dozens of global producers.

15 And so, I think you can loosely say the solar
16 industry's gone through what the automobile industry has.
17 10 years ago, we sort of in the model T. And now, the --
18 there's a lot of ongoing consolidation.

19 MR. NICELY: Vice Chairman Johanson, could I
20 just add something, too, because -- you pointed to Table III-3,
21 right?

22 VICE CHAIRMAN JOHANSON: Correct.

23 MR. NICELY: And just going back to the U.S.
24 instead of your question about China, just to revisit it,
25 it's critical to note on this page the number of companies

1 who have opened since the beginning of the POI, not simply
2 to look at the number that have closed, right? And I think
3 this is part of Dan's point. It's a dynamic high tech
4 industry. Some close, because their technology didn't work
5 out. Others open because they have new ideas. So this
6 page is actually very interesting from an opening
7 perspective, not merely a closing perspective.

8 VICE CHAIRMAN JOHANSON: Thank you, Mr. Nicely.
9 Yes?

10 MR. FENSTER: Oh, I was -- this is Ed Fenster
11 from Sunrun. I was just going to quickly going to add also
12 because balance of system and labor and land costs are more
13 in the United States, you know, overall construction costs
14 here can be higher than they are internationally. And so,
15 many, if not most international manufacturers don't sell
16 product of the quality that is required for deployment in
17 the United States. And so, any analysis of like the
18 capacity of the market as relates to, you know, the utility
19 scale market in the U.S. or the residential market that we
20 participate in has to be cut for the sort of very high
21 quality manufacturers.

22 In other countries that have, you know, lower
23 labor costs as relates to the deployment and installation or
24 lower land costs, it might make more sense to purchase a
25 module, you know, that doesn't have the same quality

1 standards or in a country that has higher capital costs of
2 25 years from now powers of what is in the United States.
3 So there are dynamics like that at play as well.

4 VICE CHAIRMAN JOHANSON: Do respondents agree
5 with petitioners that there's overcapacity in the global
6 market at this point in time?

7 MR. FENSTER: I mean, this is Ed Fenster from
8 Sunrun again. You know, again, given the quality standards
9 that, you know, we require in order to make money and
10 function as a business, you know, if you were to ask a lot
11 of the channel partners who we work with, so we have a lot
12 of companies who build systems that we end up owning, and
13 they do their own procurement.

14 For instance, there are many times in the cycle,
15 now being an example, the end of 2015 being a particular
16 example, where there were acute shortages that we might even
17 had to have step in to help with at times. So I think,
18 again, if you cut the market according to quality, you get a
19 very different story.

20 MR. SHUGAR: And we operate in Brazil,
21 Australia, India, Mexico. We're building the largest plant
22 right now in the Western hemisphere in Mexico. 750
23 megawatt, one site. I disagree with the comment from one of
24 the petitioners this morning where he said, you know, the
25 contract's going to go to the lowest common or the lowest

1 price. People ask for best and final and then whoever has
2 the lowest price wins. That's not what we're seeing.
3 Pricing's actually increasing right now in India, where
4 we've delivered over a gigawatt. It's, you know, it's a
5 supply and demand dynamic.

6 The market's actually quite tight right now.
7 Now it could change, but it changes -- it's very dynamic.
8 So I support that comment Ed made.

9 MR. WERNER: Yeah, I can just verify as well,
10 Tom Werner, that modules are in short supply. Now prices
11 are either stabilizing or increasing. There are third party
12 analysts, Bloomberg New Energy, PV Insights. And I bet we
13 can provide post-hearing that publish. And you can see by
14 third party analysts what pricing is doing. And in fact, we
15 see stability or increasing prices, because of shortages.

16 MR. HALL: This is Aaron. I've been buying
17 modules for 16 years now as well. So I think it's important
18 to note a few things. One is that not all capacity is the
19 same. Even if it was all fully utilized, which it is not,
20 by the petitioners that they included, it's not the same
21 because of the requirements that our customers have, at
22 least in the commercial and the utility space, and even in
23 the residential space, you have finance parties involved.
24 You know, the quality matters. It's not easy for you to
25 approve a new vendor, particularly an international player,

1 out of India or China or elsewhere.

2 You know, that was -- I had another point. I'll
3 come back.

4 MS. LUTZ: This is Jennifer Lutz with ECS. I
5 just wanted --

6 MR. HALL: Sorry, real quick.

7 MS. LUTZ: Oh, I'm sorry.

8 MR. HALL: The cyclical part was my point,
9 right? So as -- at the moment, yeah, there's a huge
10 shortage. We have contracts for volume, where they were
11 promised volume and we're not able to get that, last year
12 included. Some of our vendors told us, "Hey, can you take
13 less?"

14 So we call it the solar cycle. People who are
15 -- have been in the business for a long time and there are
16 booms and busts. And there are times where it's hard to get
17 product. And there are times when there is -- it's easier
18 to get product, more of a buyer's market, more of a seller's
19 market. It's probably more cyclical than most industries,
20 and that includes the point, the POI that we're discussing.

21 VICE CHAIRMAN JOHANSON: Is it more of a buyer's
22 market or a seller's market right now?

23 MR. HALL: At the moment, it is absolutely a
24 seller's market. The prices have been going quite high.
25 And as I mentioned, we as a buyer have contracted volumes.

1 And we can't -- we're fighting it tooth and nail to get our
2 suppliers to honor what they've already promised in a
3 contract. And we're being forced to pay more.

4 VICE CHAIRMAN JOHANSON: Okay, well, thank you
5 for your responses. My time has expired.

6 MS. LUTZ: I just wanted to add one point,
7 because I was listening to petitioner's testimony this
8 morning about chronic global overcapacity. And if you look
9 at slide 26 to the economist's presentation, in 2016,
10 overcapacity is the lowest it's been over the period, both
11 absolutely and as a percent of global installations. So
12 this appears to be a problem that is getting better, not
13 worse. And --

14 VICE CHAIRMAN JOHANSON: All right?

15 MR. GRIFFITH: Sorry, and Commissioner, Spencer
16 Griffith of Akin Gump.

17 VICE CHAIRMAN JOHANSON: Yes, sorry, you're way
18 back there. It took me a second to find you.

19 MR. GRIFFITH: Yeah. Yeah, one final point on
20 this allegation of overcapacity. These capacity figures
21 also have to be put in the context of the explosive growth
22 in global demand that I mentioned in my remarks. Chinese
23 market, Indian market both exploding in growth. And those
24 growth projections are going out to 2020, 2022, et cetera.
25 So you have to look at that growth and capacity in the

1 context of huge growth in demand worldwide. Thank you.

2 VICE CHAIRMAN JOHANSON: Petitioners contend
3 that growth is highest in the United States. Would you
4 contest that?

5 MR. GRIFFITH: I think we'll address that in
6 post-hearing, but the growth in the Chinese and Indian
7 markets between now and 2020 and 2022 is truly explosive.

8 VICE CHAIRMAN JOHANSON: Okay.

9 MR. GRIFFITH: And I think that would be higher
10 than the United States.

11 MR. SHUGAR: All right, Dan Shugar, NEXTracker.
12 No, the growth is not highest here. The market is big in
13 the U.S.

14 VICE CHAIRMAN JOHANSON: Has it been highest
15 here in the period of investigation?

16 MR. SHUGAR: It was really high toward the end
17 of -- that was driven by the -- what was anticipated to be
18 the expiration of the tax credit. So a lot of projects got
19 sucked forward, but it's now for the last let's say year,
20 this is not the highest growth market. The highest growth
21 market by far are India, Australia, and Mexico.

22 VICE CHAIRMAN JOHANSON: All right. My time
23 expired a while back, so I had better hand it over to
24 Commissioner Williamson. Thanks for your responses, though.

25 COMMISSIONER WILLIAMSON: Thank you and I do

1 want to record appreciation to all the witnesses that -- for
2 coming in, presenting your testimony today.

3 I kind of wish to continue that last discussion,
4 because I don't -- we didn't hear any of that this morning.
5 So you're saying that -- can you -- post-hearing, can you
6 document the data on where the markets are expanding? The
7 petitioners are also invited to offer any documentation,
8 because on the condition that the market is flat in these
9 other places. And if you all can provide some documentation
10 to substantiate this, you know, what is happening in terms
11 of in other markets.

12 I'm going to ask kind of an open-ended question.
13 Also, I'm sorry, I also heard people were saying -- talking
14 about shortages are right now. Is that in the U.S. market?

15 MR. FENSTER: This is Ed Fenster from Sunrun.
16 Yes, for -- we definitely, particularly buyers trying to buy
17 in the spot market right now are seeing significant price
18 escalation and difficulty in supply from what we've heard in
19 the market.

20 MR. SHUGAR: And a number of our customers in
21 India, Dan Shugar from NEXTracker speaking, are having
22 trouble securing modules right now.

23 COMMISSIONER WILLIAMSON: In India?

24 MR. SHUGAR: That's correct.

25 COMMISSIONER WILLIAMSON: Okay.

1 MR. SHUGAR: Yeah.

2 COMMISSIONER WILLIAMSON: Well, let's get back
3 to the U.S. market first off.

4 MR. SHUGAR: Sure.

5 COMMISSIONER WILLIAMSON: Okay, could we -- I
6 ask petitioners this morning to sort of document what U.S.
7 production there is going to be in 2017 in say in third and
8 fourth quarter, given what they've been saying about how
9 many companies are going out of business and the fact that
10 petitioners are both in bankruptcy. I guess I'm going to
11 ask you the same question in terms of documenting this
12 shortage of tightness of the market. And I'd also be
13 curious of what is the condition of domestic producers,
14 what effect that might be having on the tightness? But if
15 you could document that and how long is this tightness
16 expected to last? And what, you know, what are the factors
17 that might --

18 MR. DOUGAN: Chairman Williamson, Jim Dougan.

19 COMMISSIONER WILLIAMSON: Yeah.

20 MR. DOUGAN: If I can just -- and we will
21 definitely do that, but I think one thing, you know, we're
22 -- you're mentioning that is the reduced production of the
23 domestic producers having an impact, but you know, you're
24 hearing about tightness in the market from people who
25 largely aren't buying from the domestic producers. So --

1 COMMISSIONER WILLIAMSON: Okay, then why is the
2 market tight? What's going on?

3 MR. DOUGAN: Well, they -- we'll answer that
4 together with their input --

5 COMMISSIONER WILLIAMSON: Okay.

6 MR. DOUGAN: -- at post-hearing.

7 COMMISSIONER WILLIAMSON: I was just trying to
8 speculate to figure out what's going on.

9 MR. SHUGAR: What's going on is we've crossed
10 this demand elasticity place where solar's like the cheapest
11 stuff and it's also the lowest risk. So we're seeing the
12 market exploding all over the world in places you wouldn't
13 have thought of it. Honduras, you know, Peru, you know,
14 Africa. We've got, you know, stuff going on all --

15 COMMISSIONER WILLIAMSON: Now understand, let's
16 focus -- let's keep on the U.S. market at this point, other
17 than to the extent that does say something about the
18 availability of what's happening in other markets say
19 anything about the supply that's going to be in the U.S.
20 market or --

21 MR. HALL: Yeah, the point, I think, is that the
22 suppliers are meeting all of the market demand globally.
23 And therefore, meeting U.S. demand is also difficult. Does
24 that answer your question? You asked about the U.S., why is
25 it hard to get modules? And you don't want to talk about

1 the rest of the world, but the rest of the world is --

2 COMMISSIONER WILLIAMSON: Okay, no, to the
3 extent that's relevant.

4 MR. HALL: Yes, yes, yeah.

5 COMMISSIONER WILLIAMSON: Okay, that's helpful.

6 MS. LUTZ: This is Jennifer Lutz. I think it
7 suggests at least that the global overhanging capacity is
8 not quite as big a deal as petitioners would have you
9 believe.

10 COMMISSIONER WILLIAMSON: Okay, well, that's a
11 fair point. Okay. Yeah, and so, yeah, substantiating that
12 would be helpful there, too.

13 Second question, going back to, you know, how
14 many companies have gone out of business. Mr. Nicely
15 pointed out how many companies have gotten started. I was
16 curious about all those that had gotten started, how many
17 are still in business right now? Because the petitioners
18 were talking is that there's practically nobody in the U.S.
19 market. No domestic production really, much to speak of
20 that's not threatened.

21 And related to that is the question that --
22 because you -- there have been a lot of, you know, points
23 made about quality of domestic producers. Were any of those
24 folks that went out of business or starting up now going to
25 have the quality that folks want?

1 MR. FENSTER: Well, I think one --

2 COMMISSIONER WILLIAMSON: You know --

3 MR. FENSTER: -- residential perspective, you
4 know, one of the recent people who are investing in
5 production is Tesla. And I think that's a great example of
6 Tom's earlier comment, where you know, they are working to
7 innovate both on aesthetics, which are critical in the
8 residential market, and on efficiency and to have a
9 technologically and aesthetically competitive product that
10 they expect to charge more for.

11 So I think there are examples like that. I
12 think it's also the case to remember that the petitioners
13 have defined the market to exclude companies like for Solar,
14 which is a U.S. manufacturer, you know, which was in the S&P
15 500 during the period of investigation.

16 UNIDENTIFIED SPEAKER: Different point, just --

17 COMMISSIONER WILLIAMSON: On that point, they've
18 -- explain that, please?

19 MR. NICELY: Meaning that thin film is not part
20 of this --

21 COMMISSIONER WILLIAMSON: Okay.

22 MR. NICELY: -- part of this case.

23 COMMISSIONER WILLIAMSON: Fine, okay.

24 MR. NICELY: First Solar is a thin film producer
25 --

1 COMMISSIONER WILLIAMSON: Okay.

2 MR. NICELY: -- that does quite well.

3 MR. SHUGAR: Tom Werner earlier mentioned scale.
4 So when Tesla started doing this plant in Buffalo, New York,
5 you know, they started at large scale. You know, they -- so
6 they -- its scale is really important in getting cost down
7 and being a meaningful producer.

8 COMMISSIONER WILLIAMSON: Okay. Anybody else on
9 that?

10 MR. CORNELIUS: Well, I think --

11 COMMISSIONER WILLIAMSON: Mr. Cornelius, right?

12 MR. CORNELIUS: Yes, Mr. Cornelius from NRG,
13 sorry. You know, I think when we prepare further analysis
14 for post-hearing briefs, what you might see from us is that
15 a larger number of the new companies that have been started
16 in manufacturing or broadly speaking the number of companies
17 that have been started in the solar industry generally from
18 2012 to today will be in other parts of the downstream
19 industry, people who provide financing support, people who
20 provide permitting support, people who fabricate components
21 of tracking systems and foundations and the equipment that
22 goes on rooftops, which as noted before, represent the vast
23 majority of the total number of manufacturing jobs here in
24 the United States anyway. And so, I suspect that if we look
25 by total number, most of the new companies started have been

1 in that area more so than so in module companies that have
2 started during this most recent period of time.

3 And I suppose that if our objective is to
4 maximize the total number of durable domestic solar
5 manufacturing jobs, that's a good news story, because they
6 dramatically outnumber the total number of jobs that have
7 historically existed in cell and module manufacturing.

8 MR. NICELY: Okay.

9 COMMISSIONER WILLIAMSON: Yeah.

10 MR. NICELY: Just to be clear, Commissioner
11 Williamson, this page that Vice Chairman Johanson pointed
12 out is a page that is focused on CSPV cells and modules. I
13 think Craig's point is that, you know, as we've talked about
14 earlier and during the day today, and we will continue to
15 talk about, the number of manufacturing jobs outside of
16 cells and modules is going -- expands, explodes with the
17 growth in demand for solar.

18 COMMISSIONER WILLIAMSON: Manufacturing jobs?

19 MR. NICELY: Yes.

20 COMMISSIONER WILLIAMSON: We may --

21 MR. NICELY: I think you might have been out of
22 the room when I mentioned this.

23 COMMISSIONER WILLIAMSON: Yeah. Yes, you said

24 --

25 MR. NICELY: And --

1 COMMISSIONER WILLIAMSON: Yeah go ahead.

2 MR. NICELY: And I -- and we will give you a
3 full list of all the types of manufacturing jobs, solar
4 manufacturing jobs --

5 COMMISSIONER WILLIAMSON: Okay.

6 MR. NICELY: -- that are involved in this
7 industry at large and why the number of manufacturing jobs
8 that the petitioners, and they seem to give you the
9 impression that they are solar manufacturing, when in fact,
10 their percentage of total solar manufacturing is quite
11 small. You have batteries, you have bolts, you have
12 chemicals, you have control systems, you have BOS systems,
13 you have glass, you have ingots, you have inverters, the
14 list goes on and on. There are multiple -- and the racking
15 systems and the tracking systems, as I mentioned, that's why
16 we have Dan Shugar here. Tracking systems are a significant
17 manufacturing -- manufactured product here in the United
18 States.

19 So the point is there is a lot of production of
20 other materials that go into solar here in the United
21 States. In fact, 600 companies that we can tell you about,
22 that are, you know, and only 40 or so are on that map that
23 they talk about of companies that have closed.

24 COMMISSIONER WILLIAMSON: Okay. No, that's
25 helpful. Thank you.

1 MR. PATEL: I'd like to add to that. So my
2 name's Deep Patel from GigaWatt. And there's -- when you
3 install a solar system, there's many, many components beyond
4 the solar panels. There's many, many components beyond the
5 solar panels that go into a solar electric system. It's
6 comprised of hundreds of different little parts, right?

7 And there's one of our suppliers, they're named
8 Quickmount PV. And they're the leading manufacturer of
9 mounting equipment. And all residential systems need this
10 mounting equipment. They're based out of Walnut Creek,
11 California. They have 85 employees over there. And they're
12 manufacturing these mounts.

13 And the content of these mounts are -- it's
14 metal. It's all being sourced in the U.S. So there's a lot
15 of other jobs other there beyond just making the panels that
16 are, you know, further downstream that are being made by
17 Americans right here. And a lot of that work is -- those --
18 there are people in workforce development that people have
19 gotten a second chance to get, you know, retrained and get
20 back into the job force. So --

21 COMMISSIONER WILLIAMSON: Okay.

22 MR. PATEL: -- there's many examples just like
23 that.

24 COMMISSIONER WILLIAMSON: Okay. Thank you. My
25 time is expired, so I'll -- thank you for those answers.

1 MR. LAMON: Mr. Williamson, if I could add just
2 relative --

3 COMMISSIONER WILLIAMSON: Yeah.

4 MR. LAMON: -- to the labor side and the
5 operators out there, I want to speak to them, because those
6 are tens of thousands of jobs. My company alone has created
7 1,000 over the last three years. And those guys --

8 COMMISSIONER WILLIAMSON: By operators, you
9 mean?

10 MR. LAMON: Of equipment out in the field.
11 We're installing the forklift operators, the post driving
12 guys, the racking type of guys that install using operated
13 equipment.

14 COMMISSIONER WILLIAMSON: Okay.

15 MR. LAMON: Most all the labor's out there. I
16 mean, to see some of these guys who -- and we try hard to
17 get guys who need that upper end. As I mentioned, we're 27
18 percent veterans. I've also got guys from the inner city of
19 Los Angeles. One just last week, you know, crying on the
20 phone to me because he took his week off to close on his
21 first home ever. He's been in the solar side now since, you
22 know, 2010. Just one of those kind of guys that you love to
23 embrace. That's what the solar side is doing for us out
24 there by tens of thousands on the install side --

25 COMMISSIONER WILLIAMSON: Yeah, no, I --

1 MR. LAMON: -- in the markets.

2 COMMISSIONER WILLIAMSON: -- I appreciate the
3 fact that we've created a new industry in this country. And
4 that's -- okay, thank you.

5 COMMISSIONER BROADBENT: Can someone walk me
6 through where the most technological innovation is going on
7 right now? Where is most of the intellectual property being
8 developed? Who's innovating the most and in what areas of
9 the supply chain, that is going to be critical to the
10 long-term sustainability of solar as it competes with other
11 sources?

12 MR. WERNER: This is Tom Werner -- I'll take the
13 first pass at it. So the solar industry has exploded in
14 America. The FOREX in 2013-2016 as an example and what
15 that's created is that in some states there's an inversion
16 of load.

17 When the sun is shining there is excess
18 electricity and so the integration of renewable energy --
19 low-cost renewable energy into the grid is a massive area of
20 expansion in innovation. So it is the incorporation of
21 software in storage, eventually demand management that is
22 required as we look forward as the penetration of renewables
23 goes out, there is massive opportunity in America in
24 software, storage, in the grid integration and ancillary
25 services.

1 And then one last quick comment -- in the
2 commercial sector and in the residential sector of solar,
3 the dominant costs for the customer acquisition cost -- and
4 so there is a lot of really creative work being done on how
5 to model and sell and deliver so that customers have access
6 in a much more, much faster and much lower cost rate.

7 So those are grid integration broadly and
8 customer acquisition costs are two huge areas of innovation.

9 MR. FENSTER: This is Ed Fenster from Sunrun and
10 I might just add to the storage component. We are actually
11 working with National Grid which is the largest
12 multi-national utility on figuring out how to integrate
13 storage into the grid. We are making great progress and I
14 would point out that there are really only two capable
15 manufacturers of lithium ion batteries that we can work
16 with globally.

17 One of which is Tesla that operates, you know,
18 from their Nevada factory. So it is also the case that
19 power inversion technology which allows you to manage
20 batteries and the power from the solar panel and the grid is
21 seeing, you know, great advancements and certainly we are
22 working hard to get our soft costs down as well as Tom
23 mentioned.

24 But you know, in order to --

25 COMMISSIONER BROADBENT: Your soft costs, sorry?

1 MR. FENSTER: Oh sales and marketing, G&A,
2 warehouse overhead, you know, capacity utilization for our
3 own business and you know in order to make solar cost
4 effective, everybody in the value chain has to pull their
5 weight.

6 We need improvements from our cells, from our
7 module manufacturers, from the inverter manufacturers, from
8 the battery manufacturers, we are a racking company. We
9 work on that, you know, everybody needs to innovate in order
10 to be able to stay competitive with trends in electricity
11 period.

12 MR. NICELY: And Commissioner Broadbent this is
13 happening constantly for everyone and that's the critical
14 piece of what Tom Prusa showed you today. If you look at
15 -- and we can only talk about the module producers, but if
16 you look at the cell producers it shows much the same thing,
17 their costs declined exactly the way Mr. Swanson suggested
18 they would over time.

19 And this industry that is complaining about and
20 who brought this case, their costs went down in the same
21 way. It is a global phenomenon that costs decline in this
22 hi-tech industry. And so everybody is taking advantage of
23 it. And it may not be happening with regard to polysilicon.

24 You heard a lot about polysilicon today but it's
25 obviously happening with a lot of other costs because their

1 costs continuously have declined -- if you can go to the one
2 that shows the -- which one is it? This one right, this is
3 the U.S. module producers costs showing a decline that is
4 even greater 14% almost 15% decline, even greater than the
5 extent of the price declines.

6 And the price declines on average have been no
7 different over the entire period of time that essentially 40
8 years that this has been studied.

9 COMMISSIONER BROADBENT: Okay just one small
10 question. What is software storage -- I mean how does the
11 software relate to the storage?

12 MR. WERNER: The way you store solar energy in a
13 battery the battery performance varies significantly
14 depending on how fast you store it, how fast you discharge
15 it so you use software to do that.

16 Also, when you use the solar energy matters a lot
17 so you can use software to determine when best to use the
18 solar energy -- and I did want to add on innovation it is
19 not to imply that there is not massive innovation happening
20 in cell and module. In the cell we just opened a 25 million
21 dollar FAB in Silicon Valley where we have upped the
22 efficiency and reduced the number of steps so that we can
23 have lower costs yet make more electricity.

24 And we are lowering the cost of the input raw
25 material by using less of it, thinner wafers, thinner glass,

1 less aluminum on the edge, maybe not even aluminum -- we'll
2 see. So there is still a lot of innovation going on in the
3 upstream. It is just that you have to innovate because
4 capitalism works.

5 MR. SHUGAR: To show the intersection of the
6 innovation and the manufacturing are tied together to
7 Commissioner Williamson's question -- just last week there
8 was a big battery conference. We announced a product with
9 Next Tracker called an X-fusion plus. We have a brand new
10 battery technology called flow battery that is being made in
11 the U.S., assembled in Fremont, California.

12 And it is only for putting together with solar
13 systems so there is a whole new industry coming to because
14 solar is now at the point where you can shift some of the
15 energy off-peak so that is where a lot of innovation is
16 happening with the software, the storage and the integration
17 of the two.

18 MR. PRUSA: Commissioner Broadbent on this issue,
19 because it relates to something that was said this morning
20 that was very I think misrepresentative of what really
21 happens and it relates to innovation.

22 This discussion that polysilicon went up price in
23 2016 but the price of modules went down and there seemed to
24 be a real confusion this morning how those two things could
25 happen simultaneously -- as we presented in our pre-hearing

1 Brief, the amount of polysilicon just within the last year
2 that goes per wafer has gone down.

3 The efficiency of that wafer has gone up. So in
4 fact, the cost of polysilicon per watt has gone down. Now
5 if the Petitioners don't understand, that is the driving
6 force then you have to be concerned about them.

7 If they focus on only the price of polysilicon
8 and not all the other steps of improvement in this industry
9 they are misrepresenting what is the cost reduction that is
10 actually happening here.

11 COMMISSIONER BROADBENT: Okay, thank you. Okay
12 SolarWorld suggested a variety of countries invested in CSPV
13 capacity in response to the anti-dumping and countervailing
14 duty orders on China and Taiwan. Do you agree that this was
15 the reason?

16 Why did they invest in such capacity in countries
17 that do not have a sizable home market demand for solar
18 products? So they are talking about moving to Vietnam or
19 Malaysia, Singapore with smaller demands.

20 MR. O'NEIL: This is Steve O'Neil from REC so let
21 me respond to Singapore. We made our decision to invest in
22 Singapore in 2008 well before any of these actions. And we
23 chose Singapore because of its free trade status with the
24 world. It has open access to all markets in Asia, in Europe
25 and in the United States and of course the Singapore market

1 is tiny.

2 It is tinier than the area inside the beltway of
3 Washington, D.C. so the market there is small. But we set
4 up there because of the access to all global markets, your
5 access to technology in the semi-conductor industry and the
6 access to raw materials, the proximity to raw materials so
7 that we could export around the world.

8 But all of these decisions were taken well before
9 the ADCVD duties or any of those actions in the U.S. We
10 took it for very economical reasons.

11 COMMISSIONER BROADBENT: I think on their circle
12 diagram they are talking more about Malaysia and Vietnam.

13 MR. SIM: Yeah Commissioner I'm Edmund Sim, law
14 counsel to REC Solar. If you go back to Dr. Kaplan's little
15 dove step between 2012 and 2016 where he went back and
16 forth, back and forth, back and forth, back and forth -- the
17 Singapore dot was small in both slides.

18 COMMISSIONER BROADBENT: Right.

19 MR. SIM: And more importantly the Singapore dot
20 was green on both slides and that means that there was no
21 new capacity. So I think you know, as Steve has said, you
22 know, this client, this company pre-dated all the dumping
23 cases.

24 COMMISSIONER BROADBENT: Yeah I got it.

25 MR. SIM: The capacity is there, we are not the

1 problem.

2 MR. WERNER: This is Tom Werner again. There is
3 significant price elasticity. There are sophisticated
4 buyers of electricity. It is well-known what the cost of
5 electricity is and so-called grid parity drives significant
6 upside to demand. And then you pursue that with
7 diversification -- you don't want to be overly exposed to
8 one place of manufacturer.

9 We have multiple places where we make modules and
10 we have those sites compete and then share best practices
11 and I think that's part of what you are seeing here.

12 COMMISSIONER BROADBENT: Okay are you planning to
13 make any cells in the U.S.? You do R&D, but then you make
14 them overseas?

15 MR. WERNER: Yeah well when we say we do R&D we
16 do manufacture cells now in the United States. Our latest
17 generation -- it is harder efficiency and uses less material
18 and less steps. We make it in small scale manufacturing but
19 yes we make that in Silicon Valley.

20 In terms of longer term plans we are always
21 looking at our options.

22 COMMISSIONER BROADBENT: Okay thank you very
23 much.

24 CHAIRMAN SCHMIDTLEIN: Alright I sort of think we
25 haven't talked about this yet or at least during the

1 questioning -- when I look at the pricing data and I listen
2 to the testimony with regard to the quality and reliability
3 problems and perhaps the technology used in the
4 mono-crystalline module how that can differ and so forth.

5 So my question is why when we look at product 5
6 -- and I know you don't have access to all of the
7 confidential information but product 5 is the 72 cell
8 mono-crystalline silicone module with peak power wattage
9 between 300 watts to 350, we see consistent underselling by
10 the foreign product.

11 And so if the U.S. product -- if there are supply
12 constraints, there's quality problems, you know they are not
13 certified, they are not bankable, they are not -- the
14 lenders don't like, why are the imports consistently
15 underselling -- especially in a market that we see demand
16 sky-rocketing?

17 MR. DOUGAN: This is Jim Dougan from ECS and I
18 can obviously address --

19 CHAIRMAN SCHMIDTLEIN: You have access to the
20 information?

21 MR. DOUGAN: I have access to it, I can't talk
22 about it here, we will talk about it in post-hearing. But I
23 think some of it you know, some of it also has to do and we
24 discussed this yesterday without just getting into
25 confidential data, we discussed some of the dynamics in the

1 marketplace amongst the group.

2 And one of the things is that is by definition,
3 the same or a similar product right? But they are selling
4 at a very different scale and so you -- to some degree, if
5 you are servicing a 20 megawatt and up project and selling
6 at very large volumes to a different kind of customer
7 because you are selling in that case largely to a large
8 utility customer as opposed to perhaps large scale
9 commercial, or what they sort of euphemistically refer to as
10 mini-utility.

11 You are going to see a pricing differential.
12 Those aren't sales that are made in competition with one
13 another.

14 MR. SHUGAR: Dan Shugar, NEXTracker. I'd like to
15 add to that. So first let me just contextualize for these
16 mounting structures called trackers last year we had a 40%
17 market share in the U.S. okay according to GTM.

18 We fulfilled hundreds of projects so we are the
19 kind of big dog on these structures, we see all of these
20 projects, okay. 100% of what we did last year and actually
21 in the beginning of the company, 100% of every single
22 project that we have supported is 72-cell. There is not a
23 single project that uses 60-cell.

24 These utility jobs are 72-cell. I can go into
25 the technical reasons for that but that's what it is, okay.

1 And so there were some comments this morning that there is
2 some fungibility between those two -- it's just not the
3 case.

4 And Jim Lamon from Depcom and I both testified --

5 CHAIRMAN SCHMIDTLEIN: Between?

6 MR. SHUGAR: Between 60 and 72. There were
7 comments this morning that said that, "Oh well in some cases
8 you could go 60-cell." We haven't seen it and we are by far
9 the largest market share provider for the structural systems
10 for this category.

11 Both Jim Lamon from Depcom and I testified
12 earlier that we both tried to source 72-cell panels from
13 SolarWorld and had a lot of operational problems and
14 disqualified them as a vendor for that product, so --

15 MR. NICELY: And also as a reminder, both of them
16 got products from SolarWorld that ended up not being from
17 the United States.

18 MR. SHUGAR: Right and in our case it was from
19 Taiwan.

20 CHAIRMAN SCHMIDTLEIN: I mean I guess Mr. Dougan
21 has provided an answer to the question. What I am asking is
22 why, given the quality problems, why would you see
23 underselling by the imports? And I understand your answer
24 that well these sales aren't actually head-to-head? I mean
25 I think you are surmising, but I guess my question in

1 response to that is that we see the Petitioners losing
2 market share to imports.

3 So obviously they are competing head-to-head
4 somewhere?

5 MR. DOUGAN: One thing that is important to
6 understand here too about product 5 is and again this is
7 confidential but if you would look at my confidential slide
8 27 the origin of those imports is illuminating. So what you
9 are seeing as consistent underselling in this product I
10 advise you to look closely about where those imports are
11 coming from.

12 MR. CORNELIUS: If I might Madam Chairman a few
13 other observations, again not informed by having seen the
14 specific data myself but first, the binning that is sort of
15 an industry term of 300 to 350 watt modules is actually
16 quite wide.

17 So commonly when we specify modules in a request
18 for proposals the broadest difference in wattage that we
19 will procure is 5 or 10 watts at most. So we will go to
20 market and say we are buying 340 to 350 watt modules and we
21 typically pay more for a 350 watt module than we do a 340
22 watt module because we need to spend less money on wiring
23 and racking and installation technical labor.

24 It costs less money to install 10 megawatts of
25 350 watt modules than 10 megawatts of 340 watt modules. Now

1 if this pattern of underselling that you are observing
2 occurred over the four year period from 2012 to 2016, some
3 meaningful changes were happening in the mono-crystalline,
4 silicon supply chain during that four year period. And I
5 would guess that at the beginning of that period Suniva in
6 particular, had a more advanced mono-crystalline silicon
7 cell technology and the wattage of its panels was higher.

8 So it would stand to reason that for the buyers
9 that they could access who are prepared to buy their product
10 and consider them bankable that they paid more for a higher
11 wattage panel from Suniva than from some foreign producer.

12 What's happened during the course of the last 18
13 months has been a change in terms of the state of the art of
14 technology offered by those producers versus foreign
15 producers and I would imagine that you have seen more of an
16 equalization in the wattage of mono-crystalline and silicone
17 products that are offered for both.

18 But I would imagine that some of those foreign
19 imports were lower wattage modules that would have, for good
20 reason, been sold at a lower price because they cost more to
21 install.

22 One other point which I think is a very important
23 one is the scale effect. So as I had mentioned before when
24 we procure modules for distributed solar projects and large
25 utility solar projects, there's customarily a pretty wide

1 gap based on the size of that order.

2 When we order 200 megawatts of modules at a clip
3 instead of 5 megawatts we get a better price and there is
4 also a requirement typically for those bigger projects to
5 sell power at a lower electricity price and we can afford to
6 pay less for module.

7 I think for most of the period of investigation
8 the suppliers typical modular supply agreement would have
9 been for a relatively small order quantity and what would be
10 important to assess if you were trying to tease out
11 underselling behavior between a foreign mono-crystalline
12 silicone module supplier and a domestic one, is the size of
13 the order for the like product.

14 So even if you are comparing a 340 watt module
15 sale to a 340 watt module sale it would matter whether in
16 each instance somebody selling 5 megawatts of them or 50
17 megawatts of them.

18 And even for exactly the same product it would be
19 normal for there to be a lower price on a larger quantity
20 sale.

21 MR. HALL: Madam Chairman, just real quick.
22 Sorry I concur with the fact that you are looking across 50
23 watt ranges is very misleading as Craig mentioned and as
24 well I concur that if you are --

25 CHAIRMAN SCHMIDTLEIN: I assume that the lawyers

1 had an opportunity to comment on the pricing products as
2 they were comprised, right? Right okay and you agreed with
3 those pricing --

4 MR. NICELY: Petitioners -- we made
5 recommendations and several of our recommendations were not
6 accepted.

7 CHAIRMAN SCHMIDTLEIN: And was that one of them,
8 that this wasn't a meaningful comparison?

9 MR. NICELY: I don't recall on this specific
10 product. We suggested actually a long laundry list of
11 pricing products and they chose only a few of them.

12 CHAIRMAN SCHMIDTLEIN: Okay.

13 MR. HALL: I was just going to add that yes also
14 there is the scale of the project. Are you selling it to a
15 residential, small commercial or are you selling it to a
16 large utility volume matters?

17 But the last thing just to point out is that
18 there is also some amount of a captive market for made in
19 America product -- that results in a higher price. Some of
20 the people who spoke today have said that they have policies
21 or preferences and then we often experience customers who
22 just state in their RFP public customers often -- the city
23 of San Diego, a recent customer of ours said you must use
24 American made product.

25 And obviously the DOE has a requirement when they

1 have military facilities which have been a lot of Sunivas'
2 sales and I believe SolarWorld sales as well. When you have
3 this captive market that has to buy from that small source
4 obviously the prices are going to be higher so that's just
5 another element to consider.

6 CHAIRMAN SCHMIDTLEIN: Okay.

7 MR. BYRNE: Madam Chairman, Dave Byrne, LG
8 Electronics. I wanted to offer our perspective because I
9 think it is unique. We provide 100% mono. We focus on high
10 efficiency and we did not enter the CNI space effectively
11 until 2015 when we introduced our 72-cell product.

12 So consistently we are higher priced than all of
13 our competitors except SunPower because we focus on higher
14 efficiency solutions. We -- you know we have been
15 successful in the commercial segment because we have offered
16 these unique solutions and meet the demands of the market as
17 it evolves.

18 And just to that point, having entered the market
19 at the end of 2015 with a 72-cell solution, we are now
20 number 3 in the commercial space in the U.S. with a 400 watt
21 module whereas many of our competitors are offering 335 or
22 340 mono.

23 And the reason is again because we are meeting
24 the demands of the market. For example 20% of the U.S.
25 market now is carport and that is in the commercial space.

1 And by offering greater power density we bring the overall
2 costs of the system down and we deliver a lower cost of
3 energy. That's a cost per kilowatt hour versus a cost per
4 watt.

5 And I urge you and your colleagues to look at,
6 you know, what the market is driving towards which is a
7 lower cost per kilowatt hour and that is dominant in both
8 the CNI and the utilities segment in the U.S. which is 11.5
9 gigawatts of about 14 gigawatts installed last year.

10 So we have a unique perspective and you know
11 price is only a part of the discussion but when you look at
12 performance factors like what type of doping process are you
13 using, how are you driving down degradation over time? Are
14 you offering a double-sided cell which provides better yield
15 in low light conditions and various other factors, it is a
16 cost per kilowatt hour proposition.

17 CHAIRMAN SCHMIDTLEIN: Alright.

18 MR. NICELY: Madam Chairman, I think you have
19 gotten enough of an answer on your pricing question but you
20 also just mentioned a little bit ago market share and I
21 can't leave that unaddressed.

22 CHAIRMAN SCHMIDTLEIN: Okay.

23 MR. NICELY: As Jim pointed out in his first
24 slide there is no way this company could have -- this
25 industry could have done anything but lose market share.

1 They only had a certain amount of capacity right? Their
2 volumes went up. That's not on this slide but their volumes
3 went up which your Figures 1, and 3-2 show in the staff
4 report okay?

5 There's no way they could have produced and
6 shipped anything more than they did. This is the capacity
7 they had throughout the entirety of the POI alright? So of
8 course they are going to --

9 CHAIRMAN SCHMIDTLEIN: Are you saying they were
10 at maximum capacity?

11 MR. NICELY: Well if you look at Jim's slides you
12 will see what we are talking about and we can't talk about
13 that specifically here.

14 CHAIRMAN SCHMIDTLEIN: No, but I did look at it
15 and I know you focused on SolarWorld and not the entire
16 domestic industry.

17 MR. NICELY: But if you look at what he said
18 about cells.

19 CHAIRMAN SCHMIDTLEIN: That too, when you look at
20 the chart in the staff report it is here on page III-9 the
21 numbers are quite different than what's in Mr. Dougan's
22 slides but we can come back to it because we are -- time.

23 MR. NICELY: It's proprietary right, but my point
24 is that even if there -- and by the way even if they are not
25 at full absolutely 100% capacity, there's nothing -- there's

1 no way they could have shipped more, much more anyway near
2 to reach the demand levels that were reached because we were
3 finally reaching grid parity, right?

4 That's what drove the demand because we were
5 finally able to compete against other sources of energy and
6 so connecting the underselling discussion to a question
7 about market share and what happened with market share
8 ignores that reality is my point.

9 CHAIRMAN SCHMIDTLEIN: Okay let me yield the
10 floor to Vice Chairman Johanson.

11 VICE CHAIRMAN JOHANSON: Thank you Chairman
12 Schmidtlein. If raw material costs are declining, if
13 domestic producers have undertaken cost-cutting measures
14 including lay-offs and closures, if the domestic producers
15 have improve production efficiencies and if demand is
16 exploding, why would domestic producers be unable to price
17 their products at prices that enable them to recover their
18 costs?

19 MR. DOUGAN: Vice Chairman Johanson I missed the
20 front end of that question, could you please repeat it, I'm
21 sorry.

22 VICE CHAIRMAN JOHANSON: If raw material costs are
23 declining and if domestic producers have undertaken
24 cost-cutting measures, which have included lay-off and
25 closures, why are they not able to recover their costs?

1 MR. DOUGAN: Well some of that is going to have
2 to deal with proprietary information and so I can answer at
3 length in the post-hearing. But the first part of that we
4 definitely think that there's -- at least towards the end of
5 the POI there is a product mix element to that as well, at
6 least with respect to pricing but again I am cautious about
7 saying more.

8 MR. PRUSA: I think we had a substantial part of
9 our affirmative presentation whereby a series of very large
10 solar industry people all documenting challenges of the two
11 Petitioners getting product to them in a timely fashion, a
12 reliable fashion, et cetera, et cetera and then that's got
13 to be part of the problem of why they can't make money is
14 they have had customers who can't use them again.

15 That's affecting their ability to make a profit.

16 MR. DOUGAN: And just to add to that one thing --
17 again this deals with some confidential data, but they have
18 also gotten better at recovering their costs over the POI
19 notwithstanding the increase in imports.

20 MR. WERNER: Yeah this is Tom Werner, if I could
21 just add really briefly that the degree of differentiation
22 makes a huge difference and how well you have improved
23 efficiency on a relative basis will affect both costs
24 because you take your costs and divide by more energy and
25 that's the figure of merit that people buy on.

1 And additionally you can reduce material costs,
2 not just unilaterally for the whole industry. You can
3 reduce it through innovation. So for example, you can make
4 a thinner wafer and if you use a thinner wafer you use less
5 silicone. You can only do that if you innovate.

6 And one specific area of innovation is to use
7 something called diamond wire it is to make the wafers
8 differently. And if you are an early mover on diamond wire
9 then you have less silicone then you have a cost advantage
10 so it goes back to innovation, both on the cost of the cell
11 because you have higher efficiency and thinner wafers and
12 there is a number of other areas in the module that you can
13 differentiate on as well that can affect conversion
14 efficiency as well as the amount of material that you use.

15 VICE CHAIRMAN JOHANSON: Thanks for your
16 response, is there anything else? If not that's fine.

17 MR. NICELY: Vice Chairman Johanson I would only
18 return you again, picking up on something Tom Prusa just
19 said. Return you again to what Ed Fenster talked about
20 earlier about Sunrun's experience -- it's critical because
21 they admit that their primary focus is on the retail
22 segments of the market. That is residential and commercial
23 and if they are given an opportunity to service the
24 resident, one of the largest residential developers in the
25 country and they don't even play ball, how can they complain

1 about not making profits?

2 MR. FENSTER: I mean I might point out I think in
3 the record we have emails for instance from Suniva
4 acknowledging these problems. Like this is not you know,
5 something that ought to be facts in dispute.

6 We tried to get both Petitioners qualified. Our
7 approved vendor list -- not only does it govern our own
8 purchasing but we have dozens of partners who can choose to
9 procure. Some sell on a buy America theme, some make their
10 own decisions. We just insure that what we receive is good
11 equipment.

12 They didn't participate and so I struggle to see
13 how when you are not competitive in the utility scale
14 market, you are not competitive in 62% or whatever in the
15 residential market -- when you face that sort of headwind,
16 even if you do have declining costs, you know, it wouldn't
17 make sense to me that you could recover your costs.

18 There was a comment you know that Suniva made
19 that said that they didn't think qualifying their equipment
20 was important because only people with poor credit use
21 non-recourse financing. That evidence is a massive lack of
22 understanding about the end market into which they sell
23 their equipment.

24 Almost all solar modules get financed
25 non-recourse. Power plants get financed non-recourse.

1 Almost all commercial real estate gets financed
2 non-recourse. It is best practice. In the state of
3 California mortgages that homeowners paid by law to
4 purchase a home are non-recourse -- the alternative is what
5 is called cross-collateralization where you are basically
6 guaranteeing to your lender you are back-stopping Suniva's
7 warranty.

8 So for Suniva to say people shouldn't buy their
9 equipment using non-recourse loans, they are saying that
10 their customers should guarantee the production of their
11 equipment to their lenders. Like that's like an outrageous
12 abdication of their responsibility.

13 VICE CHAIRMAN JOHANSON: Thanks for your
14 responses. During the period of growth in the market why
15 are inventories held by U.S. importers so high and growing?

16 MR. CORNELIUS: Mr. Commissioner, could I ask a
17 clarifying question?

18 VICE CHAIRMAN JOHANSON: Yes.

19 MR. CORNELIUS: Since the report data that you may
20 be referencing isn't apparent to us, are those inventories
21 of modules that are held for sale here in the United States?
22 Is that the pattern you'd observed? And over what period?
23 Sorry, I realize I'm supposed to be answering the questions.

24 (Laughter.)

25 VICE CHAIRMAN JOHANSON: Right, right. I

1 understand.

2 MR. CORNELIUS: Well let me try this a different
3 way. I'll try--

4 VICE CHAIRMAN JOHANSON: I don't think this has
5 happened before.

6 (Laughter.)

7 VICE CHAIRMAN JOHANSON: I'm not used to this.

8 (Laughter.)

9 VICE CHAIRMAN JOHANSON: I'd have to look closer,
10 but I do--I mean, I can't--

11 MR. CORNELIUS: I could try to take a stab at it,
12 which I recognize--

13 VICE CHAIRMAN JOHANSON: The inventories are high.
14 I do recall that.

15 MR. CORNELIUS: Understood. I think one way of
16 potentially explaining that pattern is the pattern of
17 in-market growth that you see. So for sellers, and
18 particular sellers like SolarWorld or Suniva who sell a
19 greater portion of their output to distributors or to
20 customers that are operating on shorter purchasing cycles.

21 In a market that is growing with its total
22 serviceable end-market demand going up each quarter, the
23 total absolute quantity of inventory that you'd need to be
24 able to hold in order to sell to your customers would
25 probably be going up because the total demand you're trying

1 to service is going up.

2 So, you know, I think, you know, what we see in
3 terms of the requirements for delivery times for a larger
4 utility solar purchase, for example, you know, product is
5 shipped on a per-order basis scheduled well in advance. But
6 for much of the market of people who procure less than one
7 megawatt of modules at a clip, they're usually buying it
8 within three months of when they need it. So--

9 MR. DOUGAN: Sorry, Mr. Cornelius, I didn't mean
10 to cut you off.

11 Vice Chairman Johanson, I'm looking at the public
12 staff report, page III-25, Table III-13, importers inventories
13 are down as a percentage of shipment. Down as a percentage
14 of the market. They're up absolutely, but the market is up
15 hugely.

16 So to the degree that there's a greater absolute
17 amount of inventory, that's an expectation of selling into a
18 growing market. But it's lower as a percentage of imports,
19 shipments of imports, and total shipments of imports than in
20 2016 than it was in 2015.

21 MR. FENSTER: And this is Ed Fenster at Sunrun. I
22 might also mention, particularly in the residential end
23 market, you see a lot of demand spikes and troughs as a
24 result of local incentives.

25 For instance, Penacle West, the Arizona utility,

1 has said publicly they're seeing a large spike in
2 installations right now in Arizona because the policy there
3 is becoming less favorable.

4 In the history of our company in California, the
5 California State incentives stepped down on a programmatic
6 basis from a lot to a little. Every time there was going to
7 be a step down, you saw a huge surge in demand followed by a
8 brief period of apathy.

9 I think the same dynamic occurred around the
10 extension of the Investment Tax Credit in 2015, in December
11 2015, causing a little bit of slack in the early part of
12 2016. So I think, you know, you also need to look at the
13 underlying policy drivers.

14 One of the things I mentioned in my statement was
15 that because solar is viewed as deflationary, that there's
16 the expectation it's always cheaper to buy tomorrow than
17 today, these changes in incentives really do drive
18 purchasing urgency and can move that end market,
19 particularly in residential, significantly from period to
20 period.

21 VICE CHAIRMAN JOHANSON: Okay. Thanks for your
22 responses. I do note that at page III-25 of the staff report,
23 if you look, importers end-of-period inventories have
24 increased markedly. But you're stating that reflects the
25 growing market?

1 MR. DOUGAN: In absolute terms, for sure. But the
2 market has grown--I mean, look at that chart. So the fact
3 that you may have seen an increase in those inventories
4 between '14 and '16, look at the growth in installations and
5 shipments between '14 and '16.

6 So you would expect, in order to service that
7 market, they would have to be holding inventories,
8 especially given the factors that Ed talked about, about how
9 there was this sort of rush to get these installations and
10 get these things in before the tax credit expired.

11 MR. FENSTER: I mean maybe just to add quickly,
12 you know, we own a distribution company. And the KPI that
13 we use for that, the Key Performance Indicator they have is
14 "Days of Inventory," not "Inventory Level." Right?

15 So I think maybe what I'm hearing is that even
16 though inventories were going up, days of inventory were
17 coming down, right? So if you're going to distribute
18 equipment, you need to make sure you have a certain amount
19 on hand relative to the run rate of demand. Am I reading
20 that correctly?

21 MR. DOUGAN: That's correct. It's a different
22 metric for measuring pretty much the same thing.

23 VICE CHAIRMAN JOHANSON: Alright, thanks for your
24 responses. My time has expired.

25 CHAIRMAN SCHMIDTLEIN: Commissioner Williamson?

1 COMMISSIONER WILLIAMSON: Okay, thank you.

2 Mr. Nicely, this is for you. This is my last
3 question on this question of employment and where the
4 products are. But are you arguing that under the 201
5 statute the Commission should be considering the effect of
6 our decision on industries that are upstream and downstream
7 of the industry, the industry that has been identified in
8 the Petition? Is that our job? Or is that the President's
9 job?

10 MR. NICELY: At this stage of the investigation,
11 you're right. What you're supposed to be looking at are
12 cell and module manufacturing.

13 I'm simply picking up on something the
14 Petitioners themselves put in front of you, which is a map
15 that showed closures of not only cell manufacturing
16 facilities but also other manufacturing facilities. They're
17 the ones putting in front of you broader manufacturing
18 numbers, and I'm just here to explain to you that they're
19 misleading. They're misrepresenting what's in fact going
20 on.

21 It is relevant to you, though, by the way, under
22 the law to not--and not merely for the President--once, if
23 we should get to remedy, which I hope we don't, but once we
24 get to remedy, if we do, then by all means you are supposed
25 to take into consideration in making a recommendation to the

1 President what the effect is on downstream industries, the
2 overall economy, consumers, et cetera.

3 That's a significant difference between this law
4 and Title 7.

5 COMMISSIONER WILLIAMSON: Okay, fine--

6 MR. DOUGAN: And, sorry, Commissioner Williamson,
7 if I can build on what Mr. Nicely said--Jim Dougan--they
8 definitely opened the door for this. Because not only did
9 they put it in their presentation, but it was in their brief
10 where they have this exhibit that shows, you know, the 3,500
11 jobs in all these different competing technologies that--

12 COMMISSIONER WILLIAMSON: Point taken

13 Okay, let me turn to something else. There's
14 been some talk about the 60 and 72-cell modules, and I was
15 just wondering is there--I think I asked Petitioners this
16 morning--is there a difference in the manufacturing or
17 technological differences in this product?

18 MR. WERNER: This is Tom Werner. I'll take that.

19 So there is. And the idea of 60-cell or 72-cell
20 is you have more cells, 12, therefore you have a bigger
21 area. You're connecting all of these cells, and you are
22 laminating them with, we'll call it, plastics, and you're
23 putting glass on top of it. Because you have more area, the
24 lamination is different. The way you connect the strings is
25 broader, and so it is different. And then the way--the

1 glass that you buy is different, and how you mount that
2 glass. So there are differences in the manufacture between
3 the two.

4 We could debate the significance of those
5 differences, but for sure there are differences.

6 MR. FENSTER: And as a residential company, I
7 might also add there are differences that correlate to those
8 two markets, too. So, for instance, we purchase almost
9 exclusively 60-watt panels. There's safety and other
10 reasons we don't want to bring 72-watt panels onto a roof--
11 cell, I'm sorry, cells onto a roof.

12 But things like aesthetics, again, are important
13 in the residential market that may not be as important in
14 the utility-scale market. And so there are attributes that
15 correlate as well that are different.

16 COMMISSIONER WILLIAMSON: Okay. Thank you. What
17 role did China's reduction in its feed-in tariff in the
18 mid-2016 play in the increased exports to the U.S. market?
19 And the following U.S. prices?

20 MR. GRIFFITH: Spencer Griffith. I'm sorry,
21 Commissioner, I had trouble hearing your question. Could
22 you repeat it, please?

23 COMMISSIONER WILLIAMSON: I'm sorry. Sure. What
24 role did China's reduction in its feed-in tariff in mid-2016
25 play in the increased exports to the U.S. market, and in

1 declining U.S. prices? I asked the same question of the
2 Petitioners, too.

3 MR. GRIFFITH: Sure. I'll start, and others may
4 have response. Spencer Griffith of Akin Gump. The feed-in
5 tariff was reduced in 2016 I believe as a reflection of
6 declining costs in the industry overall. And we'll address
7 this further in our posthearing brief, but it's just a
8 natural evolution and maturation of the market and
9 reflecting these technological--

10 COMMISSIONER WILLIAMSON: The market where?

11 MR. GRIFFITH: In China. Technological advances
12 that Dr. Prusa and Jim Dougan have been discussing on the
13 panel all day are also at work in China that work in markets
14 globally. And so the reduction of feed-in tariff was a
15 reflection of a reduction in the cost structure of the
16 industry. We'll address this further in our posthearing
17 brief.

18 COMMISSIONER WILLIAMSON: Okay. Thank you. A
19 question for SunPower. Your firm reported that it
20 contracted with Flex Limited to produce modules in a plant
21 in California, and I was wondering what size and types the
22 modules were produced at this plant? And do you still
23 produce the modules at this plant? And if not, why not? Or
24 was this one of these more like experimental--

25 MR. WERNER: We have in fact made modules in

1 California twice previously at scale. We now make them
2 again in smaller scale with our latest generation
3 technologies mentioned. The previous two times that we
4 manufactured, we actually bought a company and continued to
5 ramp that company, improve the technology, and then we
6 already had a manufacturing facility elsewhere that was at
7 scale that had other cost advantages because of the scale,
8 as I referred to earlier.

9 So we consolidated those two facilities. And
10 then many years ago we produced modules with a partner and
11 the stack margin with the partner no longer made sense so we
12 vertically integrated in one of our other facilities.

13 COMMISSIONER WILLIAMSON: Okay. Thank you.
14 Sorry, bear with me because there are lots of questions
15 here.

16 (Pause.)

17 Okay, Some suggest that a variety of countries
18 invested in CSPV capacity in response to antidumping and
19 countervailing duty order on China and Taiwan. Do you agree
20 with this, that this was the reason? And what was the
21 impact on global cell and module prices from this new
22 capacity? I don't think that's been raised before.

23 MR. WERNER: This is Tom Werner. I'll comment.
24 In the manufacture of cells and modules, scale is a huge
25 factor. Because with scale you have purchasing power for

1 the input materials. You can also vertically integrate
2 more. You can just buy a vertical integration. So the race
3 to grid parity competing with conventional electricity,
4 sources of conventional electricity, would logically lead
5 you to using scale as a point of differentiation. And we've
6 seen massive growth in the deployment of solar.

7 And so in anticipation of future growth, that's
8 one of the ways to compete, is to differentiate on scale.

9 COMMISSIONER WILLIAMSON: So you said these new
10 plants were created in other countries?

11 MR. WERNER: Yes, combining with what I said
12 earlier, if you have multiple facilities and you can take
13 best practices, you can have those facilities share best
14 practices. You have diversity of supply. But when you add
15 it together, you have a scale advantage as well. So it's a
16 combination of my previous answer, as well.

17 MR. NICELY: Commissioner Williamson, I think the
18 point is that if you have a sense that global demand is
19 increasing, you're going to find a place to build new
20 capacity. And this is an industry that recognizes that in
21 order to drive down costs, in order to reach true parity,
22 you've got to have that capacity. Otherwise, it stalls out,
23 right? Otherwise, solar doesn't compete with the
24 conventional sources of energy.

25 COMMISSIONER WILLIAMSON: Okay, so did the orders

1 on China and Taiwan, they had an impact on people going to
2 other places to do their scaling is what you're saying?

3 MR. GRIFFITH: Spencer Griffith of Akin Gump.

4 Commissioner Williamson, whether or not the
5 capacity was added in Malaysia or in China or elsewhere has
6 to be again put in context of the explosion in demand that
7 we've seen in 2014, 2015, 2016.

8 So as Matt Nicely indicated, if you've seen this
9 explosion in demand, you're going to see explosion in
10 capacity as well. I mean, you can't have one without the
11 other.

12 So whether or not the expansion in capacity is in
13 Asian country A or Asian country B, what Petitioners haven't
14 shown is that there's been a greater growth in capacity in
15 Malaysia than there might have been in China, for example.
16 The issue is total capacity, not where is the capacity, when
17 we're looking at a 201 case.

18 COMMISSIONER WILLIAMSON: Okay, thank you. When
19 purchases are--whoops, I'm sorry. My time has expired.

20 CHAIRMAN SCHMIDTLEIN: So polite. Commissioner
21 Broadbent.

22 COMMISSIONER BROADBENT: Let's go back again
23 once more to Table III-3. I think that this really links
24 together a lot of the arguments we've heard today.

25 We see that there were 19 module producers that

1 shut down, and I'm guessing maybe a few of those are under
2 new ownership, but still a lot of full shutdowns compared to
3 the 10 startups.

4 With the rapidly growing market, and with supply
5 shortages as you allege, can we really blame this on bad
6 technology and bad choices? Is this degree of turnover
7 typical in other countries' solar industries?

8 MR. NICELY: Again, as we discussed earlier,
9 Commissioner Broadbent--Matt Nicely, sorry, I've not been
10 mentioning my name but I guess you know who I am by now--
11 each of these companies have closed or opened for different
12 reasons. Again, it's a dynamic--no, I'm not going to say
13 that I'm going to make a generalization that each one of
14 them has closed because of a failure of their technology to
15 work out. But each one of them may have different reasons.
16 We could try to go through and talk about each one.

17 I know the Petitioners will try to find some
18 article in a trade rag that says, where somebody said that
19 it was because of low-cost imports, but each one of those
20 companies' situations is different.

21 I think what is clear is that they're in a
22 dynamic, high-tech industry. This is not uncommon for
23 companies to close down because it didn't work out, and for
24 new companies to be opening, just as this page shows.

25 MR. FENSTER: This is Ed Fenster. I might add, I

1 think you would expect in a maturing industry to see over
2 time fewer companies rather than more. And I think one of
3 the unique attributes that the United States has, you know,
4 we have this very extensive network of venture funding, and
5 the ability for us to, you know, as a nation engage in new
6 enterprises, one of our key differentiating factors
7 globally.

8 And so I think, you know, there are lots of
9 companies that what you may be seeing is just there were
10 more darts thrown at the board using different technique in
11 the United States because we have such a rich capital
12 formation process here; whereas internationally, you
13 wouldn't see that.

14 So I think that that is as much an indication of
15 the strength of our country from a capital formation basis
16 as anything else.

17 MR. CORNELIS: Yeah, and a few thoughts to add to
18 that. I think, driven by that same
19 ease-of-capital-formation and entrepreneurship here, I would
20 imagine that if you were to look at the total number of
21 companies opened and then closed in other segments of the
22 market--say for example the downstream portion--you would
23 see an even higher number of companies that aimed to go
24 develop solar projects who had started up and then exited
25 the market.

1 And, you know, what we've seen, you know, over
2 our careers of entrepreneurship in growing this industry
3 here in the United States is that there's this wonderful
4 optimism that the capital markets have here that America's
5 business people have, hat their local governments have, and
6 sometimes the particular business venture idea that they
7 have is well informed, and sometimes the teams that they
8 assemble to go implement that business venture are up to the
9 task, and sometimes they are not.

10 And I've been a part of both successful and
11 unsuccessful enterprises that have started across a range of
12 parts of the supply chain, and, you know, in a lot of
13 instances when they don't work out it's not just because
14 there are some predatory pricing from a domestic importer.

15 So I'm not sure that the pattern of openings and
16 closings is by itself explained by imports as a substantial
17 cause.

18 MR. SHUGAR: It's noteworthy the most profitable
19 solar company in the world is a U.S. company for solar, and
20 they have a very strong--they are excluded from this
21 proceeding because they don't make crystalline, they make
22 thin-film, and they have a really large market share in the
23 U.S. right now. And the technology leader is sitting here,
24 Tom Werner from SunPower, a global technology leader for 10
25 years in photovoltaic module.

1 COMMISSIONER BROADBENT: Okay. Good. Let's see,
2 I'm going to go back to my scope question that I asked the
3 Petitioners. The scope covers cells whether or not
4 assembled into products, as opposed to cells to modules
5 defined explicitly.

6 I'm hoping that you can compare this scope to
7 that of recent ADCBD investigations relating to tires and
8 aluminum extrusions, which included further assembled
9 products, but only the in-scope components within those
10 products.

11 Is the non-cell portion of the assembled modules
12 included in the scope of these investigations?

13 MR. NICELY: It's a good question. We'll I guess
14 deal with it in the posthearing.

15 COMMISSIONER BROADBENT: Thank you.

16 Back on the China question, let me make sure I
17 get the answer here. According to Solar World's Annual
18 Report, the Chinese solar market nosedived in the second
19 half of 2016 after the government's surprise move to cut
20 subsidies on July 1st, 2016. Because Chinese manufacturers
21 were unable to sell expected volumes in their own market,
22 they dumped their excess capacity on the world, leading to
23 a drop in U.S. prices.

24 As a factual matter, was there a major move by
25 the Government of China in 2016 to cut subsidies? And if

1 so, what has the effect been on demand in China?

2 MR. GRIFFITH: Commissioner Broadbent, Spencer
3 Griffith of Akin Gump, a couple of comments.

4 First of all, again this relates to Commissioner
5 Williamson's question as well, the reduction of the feed-in
6 tariff Petitioners have implied led to an explosion of
7 Chinese exports to the U.S. Chinese exports to the U.S. in
8 2016 declined. They declined from 2015 levels.

9 So Petitioners' theory that any reduction in the
10 Chinese feed-in tariff resulted in a fundamental qualitative
11 change in the U.S. market is simply not correct.

12 Secondly, as I indicated earlier, and as we
13 indicated in our posthearing submission, all the projections
14 for Chinese demand are continuing to be highly optimistic,
15 and indeed Chinese capacity itself by 2020 is expected to be
16 100 gigawatts. The reduction in the feed-in tariff was not
17 intended and did not serve as a brake on the continued
18 growth of the Chinese market. China has always been a
19 leader in the use of solar power, and all projections are
20 that Chinese demand will continue to explode in the future.

21 MR. FENSTER: This is Ed Fenster. It is best
22 practice for governments to reduce incentives, you know, as
23 costs come down. You know, California was a leader in that.
24 We've seen many states in the United States do the same.
25 The United States has done that with wind energy over time.

1 You know, I think that is an inappropriate
2 reaction to declining costs.

3 COMMISSIONER BROADBENT: Okay, good. This is for
4 the Canadian Respondents. Since there's no Canadian
5 production of CSPV cells, which countries other than the
6 United States are the leading sources of cells for Canadian
7 produced modules?

8 MR. STOEL: Commissioner Broadbent, Jonathan Stoel
9 from Hogan Lovells. We will take that into a posthearing
10 submission. I would just point out for the Commission that
11 we actually requested that the data on modules from Canada
12 be included in the staff report and for your consideration
13 because, as you said, there are no cells being manufactured
14 in Canada. In other to make sure the NAFTA exemption is
15 properly applied in this case, we specifically requested
16 that data and that's the reason why we believe Canadian
17 imports should be exempted from the investigation.

18 COMMISSIONER BROADBENT: Okay, but you can't tell
19 me where the cells are coming from?

20 MR. STOEL: That's confidential information,
21 Commissioner, and we'll provide that in the posthearing.

22 COMMISSIONER BROADBENT: Okay.

23 MR. PORTER: Excuse me, Commissioner Broadbent,
24 the brief of the Canadian Government provides this
25 information.

1 COMMISSIONER BROADBENT: Okay, I appreciate that.
2 Thank you.

3 MR. STOEL: Commissioner Broadbent, sorry, I did
4 want to add one point, which is there have been some false
5 allegations about our client, Canadian Solar, from the
6 Petitioners. There's been no trans-shipment of Chinese
7 cells through Canada to the United States market. We said
8 that very clearly in our brief and I want to reiterate it
9 here for the public record today.

10 COMMISSIONER BROADBENT: Okay. Good. Okay, for
11 Canadian or Mexican Respondents: If the Commission makes an
12 affirmative injury determination that imports from Canada
13 and Mexico shall be excluded from relief unless they are
14 relatively substantial and they contribute importantly to
15 the serious injury or threat found by the Commission, if the
16 Commission defines imports from Canada and Mexico based on
17 module assembly location and also finds these imports to
18 account for a substantial share of total imports, would the
19 increase in import volumes from these countries be
20 sufficiently similar to the increase in total imports to
21 represent an important contribution to the overall cause of
22 serious injury?

23 Just to think about this differently, would
24 imports from these countries be part of the hammering effect
25 of imports on the industry? And is this sufficient for

1 meeting the important contribution standard in the law?

2 MR. STOEL: Commissioner Broadbent, again for the
3 record Jonathan Stoel. I guess I would just go back to one
4 very important point with respect to Canada, which is
5 Canadian imports during the Period of Investigation, as we
6 documented carefully in our brief, have been extremely
7 small. So we don't think in any way did we contribute
8 importantly to any injury, if there is such an injury,
9 during the Period of Investigation.

10 I would also point out, as you've heard from the
11 witnesses today, that there's been a very strong
12 relationship with both Suniva and SolarWorld among Canadian
13 producers, and indeed exporters. So again we don't see any
14 basis on the record before you to find "contribute
15 importantly."

16 I would also go back to the first prong and say
17 that with respect to Canadian imports from--regardless of
18 where the cells were sourced, there has never been a
19 substantial share of imports from Canada. And they're
20 clearly outside the top five test with the NAFTA and U.S.
21 law require. We're way out of the top 10 even.

22 So again, I just think that there's no basis for
23 inclusion of Canada in any injury finding, if you were to
24 make such a finding.

25 COMMISSIONER BROADBENT: Okay. Thank you. Oh,

1 yes, sir?

2 MR. GERKIN: Yes, Commissioner Broadbent. I'm
3 sorry. I'm in Matt Nicely's old seat and I don't have a
4 working microphone.

5 COMMISSIONER BROADBENT: Can you say your name?

6 MR. GERKIN: Yes, this is Dan Gerkin at Vinson &
7 Elkins, on behalf of SunPower.

8 COMMISSIONER BROADBENT: I'm afraid we can't hear
9 you.

10 MR. GERKIN: Hello? Thank you. Thank you, Tom.
11 Similar to the Canadian experience, the Mexican experience
12 is one where from a quantity standpoint Mexican imports
13 during the period are outside the top five. And so not a
14 substantial share of imports, and therefore not to be
15 considered in terms of an injury determination.

16 In addition, to your earlier question, and the
17 data is confidential and we've addressed it in our brief,
18 and we'll address it in the post-hearing brief as well, but
19 I would say using your language that Mexican imports are not
20 part of any hammering effect.

21 CHAIRMAN SCHMIDTLEIN: Okay thank you. I wonder
22 if someone could tell me what is going on from 2014-2015
23 where we see total imports almost doubling from '14 to '15?

24 So I know we have talked about the utility
25 projects being booming in 2016.

1 MR. SHUGAR: There are tax credits, the 30%
2 federal investment tax credit was due to expire at the end
3 of 2015 -- I'm sorry 2016 and so but these projects are big
4 and so there was a huge acceleration of project development
5 in the U.S. in '15 and '16 as a result of that.

6 And then at the end of '15 it got extended and so
7 it changed the dynamic but that was driving a lot of the
8 accelerated demand in utilities scaled in the U.S.

9 MR. HAUBENSTOCK: If I may -- Arthur Haubenstock
10 with 8minutenergy. It takes a long time to build these
11 utility scale projects and for financiers to put the money up
12 to build these projects they have to be assured that it is
13 going to be done 6 months before the deadline for the ITC.

14 So if it takes 18 months to two years to build
15 the projects -- sometimes it's less, sometimes it's a year,
16 you need to assure your financiers that you have everything
17 in place to get it done in case there is going to be some
18 delay because the ITC is such a large percentage of the
19 financing of the project.

20 CHAIRMAN SCHMIDTLEIN: So the increase we see in
21 '15 was for utility projects that were built in '16, is that
22 what you are telling me?

23 MR. SHUGAR: Yeah they were built in '15 and '16.

24 CHAIRMAN SCHMIDTLEIN: Well there was only one
25 additional project build in '15 so according to your slide

1 so --

2 MR. SHUGAR: I'm sorry I'm not familiar with that
3 slide but you know, certainly in the utility scale area
4 there would be you know, roughly you know, think of like 100
5 projects in the U.S. and then --

6 CHAIRMAN SCHMIDTLEIN: Well this is the slide you
7 all provided. This is the public slide.

8 MR. SHUGAR: Right but that's not number of --

9 MR. NICELY: That's the number of gigawatts.

10 MS. GRACE: So that's gigawatts of projects.

11 CHAIRMAN SCHMIDTLEIN: Okay.

12 MS. GRACE: So there are 14 total gigawatts across
13 all sectors in 2016.

14 CHAIRMAN SCHMIDTLEIN: Okay so it is a different
15 measure but you see that the increase from '14 to '15 was
16 not that great I guess compared to '15 to '16 and so my
17 question is -- I don't see this same correlation in the
18 increase in subject imports and that's why I asked.

19 So are you saying that the increase from '14 to
20 '15 was really in anticipation of what happened in '16?

21 MR. NICELY: Correct because you have to bring
22 the product in in order to do the installations. The
23 installations have to be complete in order to get the tax
24 credit. The installation has to be complete -- absolutely
25 complete and it takes how long to do these installations.

1 MR. CORNELIUS: Is this quantity delivered like
2 FOB, custom's collections? Okay so that actually would
3 explain if we are looking at 2015 to be able to put 10
4 gigawatts worth of utility solar projects in the ground
5 during 2016, especially given the financing set-backs which
6 Arthur cites and which are real but it was impossible to get
7 tax equity or debt financing on projects without something
8 like 6 months of cushion to that cliff date on the ITC.

9 You had module deliveries to sites in the 2015
10 calendar year that would have come into various ports of
11 entry in the U.S., you know, for a good portion of what was
12 commissioned in 2016 during the 2015 calendar year. So that
13 is not necessarily surprising that way.

14 CHAIRMAN SCHMIDTLEIN: Okay. Alright I don't
15 have any further questions, Vice Chairman Johanson?

16 VICE CHAIRMAN JOHANSON: Thank you Chairman
17 Schmidtlein. Can you all please respond to industry reports
18 referenced on page V-37 of the pre-hearing staff report
19 indicating that increase in prices in 2013 and 2014 were
20 driven primarily by the imposition of the anti-dumping and
21 countervailing duty orders on imports from China and Taiwan?

22 MR. NICELY: Spencer is that something you want
23 to handle?

24 MR. GRIFFITH: Spencer Griffith, Akin Gump. As
25 we discussed in our pre-hearing Brief the imposition of the

1 Orders on Solar 1 and Solar 2 did constrain the volume of
2 imports into the United States from China. And it is our
3 position that that will also constrain the volume of imports
4 going forward when the Commission is looking at threat.

5 What the impact was on price -- that I would
6 defer to the U.S. companies.

7 VICE CHAIRMAN JOHANSON: Do the U.S. companies
8 have any views on that or if you would like you could reply
9 in the post-hearing Brief.

10 MR. SHUGAR: No I would just say you know, we
11 heard SolarWorld speaking earlier today about well they just
12 you know, they put in 2016 the 72-cell line capacity into
13 place. You created the opportunity for them back then okay
14 with these countervailing duties -- that's when they should
15 have put that 72-cell line in.

16 Because that -- we just looked at the big bar on
17 the graph that shows the big demand, it's utility. They
18 missed the opportunity that's when they needed to move and
19 get that done -- not last year but back then.

20 VICE CHAIRMAN JOHANSON: Thanks Mr. Shugar. And
21 I just have one more question for you all. It's something
22 that I think we should address just for the record and that
23 is the whole issue of unforeseen developments.

24 And I asked this same question of the Petitioners
25 this morning. When analyzing unforeseen developments, whose

1 position is relevant? Should it matter whether the
2 negotiators did not foresee the development? Whether the
3 domestic industry did not foresee the development or some
4 other entity did not foresee the development?

5 MR. CORNELIUS: I can speak to whether all three
6 of those categories or parties should have been able to
7 foresee all these market conditions and then perhaps leave
8 it to legal counsel to speak to how the code would determine
9 that standard.

10 And what I can say is for anyone of those parties
11 the type of deflation that we have seen in the cost of
12 electricity from solar has been an essential fact of the
13 market that we operate in from the time that grid supplied
14 solar electricity started to grow 20 years ago -- every year
15 power prices have come down. Every year in markets that
16 have grown, governments have reduced the subsidies that were
17 available because they saw the industry respond and be able
18 to build more projects.

19 Every year we have seen manufacturing tooling
20 advance in the state of the art. Every year we have seen
21 the performance of products advance. We have seen companies
22 like ours increase our demand and our scale requirements
23 from our vendors. So whether you are talking about a
24 category, a professional that is responsible for negotiating
25 the price on the sale of a module, if you are talking about

1 the business planners within the Petitioners -- virtually no
2 participant in this industry who is a thinking participant
3 who took in its information could have avoided the
4 expectation that this market continued to require technology
5 innovation and scale and continued downward price.

6 MR. PRUSA: Commissioner Johanson in the -- this
7 is Tom Prusa. In the annexes to my exhibit, I include
8 academic studies. These are not the thinking minds of the
9 industry, these are just pointy head academics. They, years
10 ago, were making long-run predictions.

11 So the idea that it was unforeseen -- that solar
12 prices would continue to drop, there were academics making
13 long run projections and what we are seeing is in fact what
14 they were predicting 4, 6, 10 years ago.

15 So in that sense, it has been this continuation
16 of a long run trend. It is simply not just, "oh my gosh
17 prices really fell," prices have been falling like this for
18 a long time. Academics observed that and were making
19 projections that were in fact about where they thought we
20 were going to be in terms of price.

21 MR. FENSTER: This is Ed Fenster. I might even
22 go one step further to say if you didn't believe the price
23 declines were inevitable, like you really had no business
24 starting a business to begin with because it would
25 intuitively therefore mean that in the future you wouldn't

1 have a competitive business you know.

2 Like we would never have started our company in
3 2007 if we didn't believe what has happened would happen and
4 if we didn't believe that in 2007 it wouldn't have made
5 sense to start the business because you ultimately would
6 have just had to lay everybody off.

7 MR. CORNELIUS: And I think part of the point
8 that you are making there, Ed, is given that the benchmark
9 price ultimately that we sell against as an industry -- our
10 wholesale power prices, our retail power prices -- even if
11 they weren't declining which they have been since 2009, we
12 worked through various tiers of customers and generally we
13 sell to the customers first who have the highest avoided
14 costs and who can most easily afford solar.

15 And the more solar we put in, we get the
16 customers who pay lower and lower costs because we have
17 already shaved off the customers who were the most easy for
18 solar to address. But in point of fact during the course of
19 the last 9 years we saw wholesale power prices decline
20 dramatically.

21 We saw retail power prices in Northeastern
22 markets where residential and distributed solar cell for the
23 first time in 10 years we saw retail power prices deflate.
24 And so even if you were to put aside the solar industry's
25 historical and foreseeable deflationary price trends,

1 anybody who observed U.S. power markets would understand
2 that if you expected to sell more solar every year for the
3 next 5 years, you should expect that you would have to sell
4 it at a lower price because no one would buy it otherwise.

5 MR. FENSTER: I will add to that analysis just
6 the declining incentives which were known in advance. So
7 just to tread water even before considering the factors that
8 Craig just mentioned you know, you wouldn't have known in
9 2007 that you needed to get you know, 50 to 67% of your
10 costs out just to keep pace with expected declines in
11 government incentives.

12 MR. NICELY: Vice Chairman Johanson I love these
13 answers and I think that answers your question from a legal
14 perspective. Article 19 is unclear right? It's passive, it
15 doesn't say who has to find it to be unforeseen but I think
16 what you have just heard is -- you would have to be sleeping
17 not to see this coming right?

18 Swanson's Law is called Swanson's Law for a
19 reason. It has been established as something everybody in
20 this industry knows is happening and has been happening ever
21 since 1976.

22 MR. WERNER: Tom Werner, I'd like to comment a
23 little bit further. So Professor Dick Swanson was the
24 founder of SunPower and when I started as CEO he was moved
25 to CTO role so I know him extraordinarily well.

1 We were owned by a semi-conductor company at the
2 time. Semi-conductor costs go down by Moore's Law. It is
3 common that when you scale you apply a learning rate and you
4 project costs to go down so that was a concept that created
5 this was that as you scale manufacturing you would expect
6 that costs will come down.

7 And then the question is at what slope or at what
8 rate. So it is completely consistent with the concept that
9 as we get costs down we scale and then it is a virtuous
10 cycle as I referred to in my prepared remarks.

11 VICE CHAIRMAN JOHANSON: Alright well thank you
12 for your responses I appreciate it. That concludes my
13 questions and again I would like to thank you all for being
14 here. I know that some of you came a fairly long way so
15 thanks for educating us further on this subject.

16 CHAIRMAN SCHMIDTLEIN: Commissioner Williamson?

17 COMMISSIONER WILLIAMSON: Thank you and just a
18 few additional questions. When purchasers are evaluating
19 the bankability of a particular manufacturer, do they base
20 their evaluation on a particular brand name or on a
21 particular manufacturing location?

22 For example, for some of the firms with
23 operations in multiple countries, is your bankability
24 associated with your brand or tied to a specific production
25 location?

1 MR. FENSTER: This is Ed Fenster, I'll handle
2 that. It's actually a specific line in a specific factory
3 typically. So you know we will probably -- our quality
4 assurance program will look at a particular module type and
5 a particular location.

6 So it doesn't matter where the actual factory is,
7 that's not relevant to the quality discussion. The question
8 is just is the module that is being manufactured in that
9 specific factory -- is that sort of quality standards, what
10 are the building materials, you know, for that piece of
11 equipment.

12 And so it's really that specific and targeted and
13 we talk about this a little bit more in Dirk Morbitzer's
14 declaration which is in the appendix to the Brief.

15 MR. HALL: This is Aaron with Borrego. I just
16 wanted to add from a commercial market perspective anyway
17 and I mentioned it in my statement earlier. When we are
18 purchasing modules I would say it enters into the realm of
19 bankability in terms of how our customers are going to view
20 the project that we are selling to them and how their
21 financial partners are going to view that.

22 And one of those elements is examining the
23 production characteristics of that module, like you light
24 induced degradation which is how much you lose, you know, in
25 the first few days and what not, your temperature

1 coefficients -- those sorts of things.

2 What we have found is that our import customers
3 do an excellent job in working with these third party labs
4 to justify the quality of the product -- by quality I mean
5 how much is a system going to produce over time? There's
6 also reliability as a separate sphere. I am just going to
7 focus on the production aspect.

8 And so what we find is we have gone to great
9 lengths, even in the last 6 months with both Suniva and
10 SolarWorld because we have these buy American projects. We
11 said please provide us the data to back up the expected
12 performance characteristics of your modules.

13 And it is sub-par to what we receive from the
14 importers. The importers often have multiple reports so we
15 can take averages, have high sample sizes. It's credible,
16 it's thorough. We pull teeth specifically with the two
17 Petitioners to get information.

18 COMMISSIONER WILLIAMSON: Does the product meet
19 the specs is almost what you are saying, no matter where it
20 is manufactured?

21 MR. HALL: No I'm going to bankability because if
22 we can't prove how much the system is going to produce then
23 we can't sell that.

24 COMMISSIONER WILLIAMSON: I thought that was the
25 specs but maybe I'm wrong, Mr. Fenster?

1 MR. FENSTER: I would just say so these are 30 to
2 35 year assets and so over that time period how much energy
3 they make each year matters and what the cost to maintain
4 them matters substantially.

5 So I had mentioned for instance in my comments
6 that if we have to visit a home once more that's equivalent
7 to like 10 cents a water module cost.

8 COMMISSIONER WILLIAMSON: Because I want to go on
9 to some other question but you are basically talking about
10 performance specs aren't you?

11 MR. FENSTER: Yeah so the important thing to
12 understand is 1 -- that the module is being manufactured to
13 the performance spec, which is not always the case; 2 -- to
14 insure that the equipment that is going into the module is
15 correct because again there are not a lot of -- you know 20
16 to 25 years is a long time and it is great that company's
17 provide warranties --

18 COMMISSIONER WILLIAMSON: Thank you I got the
19 answer. I want to move on to some other things but thank
20 you. So Suniva has suggested that the pricing data may
21 suffer from a recent survivor bias in that they only reflect
22 information from firms that continue to operate and not
23 domestic producers that operate earlier in the period of
24 investigation and that have shuttered operations. Do you
25 agree with this -- if you want to answer post-hearing?

1 MR. DOUGAN: This is Jim Dougan from ECS. We
2 will take a look at that post-hearing. Any detailed
3 discussion is going to go into BPI so.

4 COMMISSIONER WILLIAMSON: Okay that's fine, thank
5 you. Suniva -- this is for SunPower, Suniva argues that
6 your operations in Mexico are serving as an export platform
7 for trans-shipment of third country cells to the U.S. I
8 don't know whether Commissioner Broadbent raised that
9 question or not but that's the question.

10 And I guess Mr. Werner, did you also talk about
11 having a 7 megawatt plant or something coming online in
12 Mexico?

13 MR. WERNER: So a couple of things. One in
14 Mexico we won about 560 megawatts in the first tender that
15 they held, the first auction that they held and that was
16 about I think it was approximately two years ago. We
17 subsequently won some more projects in the second tender.

18 So we in fact, intend on that capacity to go to
19 those projects as well. Yes we do export some of what we
20 produce in Mexico to the United States as well. The 7
21 megawatts that I have referred to was what we are bringing
22 up with our latest generation of technology in Silicon
23 Valley.

24 COMMISSIONER WILLIAMSON: Not in Mexico?

25 MR. WERNER: Correct.

1 COMMISSIONER WILLIAMSON: Okay I misunderstood,
2 sorry, okay. Thank you. And those are modules that are
3 using cells that are imported?

4 MR. WERNER: Modules that are imported from our
5 factories in the Philippines and Malaysia that I referred to
6 earlier.

7 COMMISSIONER WILLIAMSON: Okay, okay thank you.
8 Let's see I have one last question. Actually that's it,
9 Commissioner Johanson asked the last one, okay. I want to
10 thank everybody for their answers.

11 CHAIRMAN SCHMIDTLEIN: Okay, alright so that
12 brings us to the end of the Commissioner's questions. Does
13 staff have any questions for this panel?

14 MR. ANDERSON: Thank you Madame Chairman yes
15 staff has a few brief questions.

16 MR. DAVID: Yes, thank you Andrew David, U.S.
17 International Trade Commission. Mr. Werner I want to ask
18 you a little bit more about SunPower's U.S. operations.
19 When did you start U.S. cell production?

20 MR. WERNER: U.S. cell production, the FAB that I
21 just talked about started within the last 6 months.

22 MR. DAVID: Okay and did you have other cell
23 production during the POI in the U.S.?

24 MR. WERNER: No.

25 MR. DAVID: Okay. And regarding your module

1 production -- I know you put out a press release in 2013
2 with Flextronics that you had about 80 to 90 megawatts of
3 module capacity in the U.S., is that accurate?

4 MR. WERNER: What was the number again?

5 MR. DAVID: 80 - 90 megawatts?

6 MR. WERNER: Yes, that sounds correct.

7 MR. DAVID: Why did you start U.S. production of
8 modules?

9 MR. WERNER: So the original idea there was to
10 test out different levels of automation and we thought that
11 we could integrate new equipment that would lower -- improve
12 quality and lower costs. That turned out to be true but we
13 couldn't do it in scale.

14 MR. DAVID: Okay and you were doing if I remember
15 correctly you were doing 96 and 128-cell format for
16 residential, commercial and utility projects?

17 MR. WERNER: Yeah generally speaking the higher
18 cell count is for utility scale.

19 MR. DAVID: Okay. So why did you stop production
20 at the plant? Was it because the concepts you were trying
21 out weren't working?

22 MR. WERNER: Two things -- one, the plant was not
23 to scale so it was disadvantaged that way and secondly we
24 didn't want to pay extra margins so we re-integrated the
25 modular capacity back into our own facilities.

1 MR. DAVID: Okay and my final question is I see
2 on Table I-2 that you are not listed amongst the firms
3 there. Can you provide a U.S. producer questionnaire?

4 MR. WERNER: Okay that's one I'll have to have our
5 team provide in our post-hearing Brief.

6 MR. DAVID: Thank you.

7 MS. ALVES: Good evening, Mary Jane Alves from
8 the General Counsel's Office. Thank you to all of the
9 witnesses who have participated today. It has been
10 extremely helpful. I don't want to prolong this hearing any
11 longer than we have to so feel free to answer this question
12 in your post-hearing Briefs.

13 Looking at the various industries throughout the
14 world can you tell us if we are missing any major players?
15 Are there major players that are not accounted for in the
16 report? Are there specific countries for example, that the
17 United States may have FTA's with that either are
18 participants in the market in terms that there are imports
19 from those countries?

20 Or, are they major suppliers as well? So again
21 if you could just give us a feel from your experience in the
22 industry who else is out there that we haven't already
23 accounted for, thank you.

24 MR. ANDERSON: Thank you Madame Chairman, staff
25 has no further questions.

1 CHAIRMAN SCHMIDTLEIN: Okay thank you. Do
2 Petitioners have any questions for this panel?

3 MR. MCKAYE: No we do not.

4 CHAIRMAN SCHMIDTLEIN: Alright thank you very
5 much. So this brings us to closing statements. I will
6 dismiss this panel now, thank you all very much, thank you
7 for staying late with us, it's been very helpful.

8 MR. BISHOP: Will the room please come to order?

9 CHAIRMAN SCHMIDTLEIN: All right, thank you.
10 So, for closing statements, the petitioners have two minutes
11 from direct, five minutes for closing, for a total of seven.
12 And the respondents have one minute from direct, five
13 minutes for closing, for a total of six minutes. And
14 petitioners, you may begin when you're ready.

15 MR. KAPLAN: Seth Kaplan, International Economic
16 Research. One rebuttal point. The causation issue before
17 the Commission is, what is the largest cause of the injury
18 to the domestic industry? Of course, technology lowers
19 costs. This is the semiconductor industry.

20 The issue is that prices were falling faster
21 than costs, causing serious injury. All major companies
22 make this point in their SCC filings. The idea that the
23 semiconductor industry writ large is barred from Section 201
24 relief because technology improves over time is frankly
25 nuts.

1 The reason prices fall faster than costs in this
2 case, of course, is increased volumes of low-priced imports.
3 No one knows what Dr. Prusa does. The staff and I don't
4 have his models. We don't have his data. We don't have his
5 code to judge his results. But he hasn't addressed the
6 causes of injury.

7 CLOSING REMARKS OF MATTHEW MCCONKEY

8 MR. MCCONKEY: This is Matthew McConkey of Mayer
9 Brown. I just have some random observations and some random
10 thoughts here, then we'll turn it over to Mr. Brightbill for
11 a more cohesive closure. Overall observation from the day.
12 Respondents testimony ignores, discounts the hard data, the
13 information and the analysis in the staff report, the
14 prices, the financial conditions and quality issues. And
15 they instead have relied on a handful of anecdotes and sort
16 of creative economic models to lay blame anywhere but
17 imports.

18 With respect to these academic predictions that
19 this is exactly what was going to happen, they did not
20 predict the scale of these price reductions, these declines
21 and the flood of imports in the last couple of years. They
22 did not predict that. With respect to technology, lots of
23 comments made about technology, Mr. Nicely at one point said
24 something along the lines of, "A lot of companies invest in
25 technology, it just didn't work out."

1 Well, petitioners have invested in the same
2 technologies as those in the other overseas companies. They
3 seem to work out, but then our companies can't -- that's not
4 an explanation. Respondents testified that at one point
5 that there's a shortage of product at this point, however,
6 as Commissioner Johanson notes, inventories are high. I
7 suggest these two things are contradictory, and only one,
8 inventory levels, are supported by the staff report.

9 Mr. Cornelius of NRG told the Commission that
10 Suniva failed all of its criteria, including that of
11 quality. And that's an exceedingly odd statement to make,
12 since in the winter of 2015, Suniva's panels were put on the
13 NRG Sports Park in Houston. Indeed, in a November 3, 2015
14 press release, NRG announced the installation of Suniva's
15 panels on that sports complex.

16 With respect to continue with technology a
17 little bit, Exhibit 10 of respondents brief we submit,
18 acknowledges that petitioners' technology is superior, and
19 with respect to quality, that the quality problems based on
20 warranty claims in official SCC filings is higher with many
21 foreign sources by far than the domestic industry.

22 And finally, with respect to this argument that
23 we didn't scale up enough, it's hard to scale up when
24 imports are crushing you and you're losing projects for one
25 and a half cents per watt.

1 CLOSING REMARKS OF TIMOTHY BRIGHTBILL

2 MR. BRIGHTBILL: Tim Brightbill, Wiley Rein. I
3 agree. How do you scale up when you're under an avalanche
4 of imports? I know how China does it. I'm not sure how the
5 U.S. industry was supposed to do it here. We'd like to
6 commend all four Commissioners for your tough questions.
7 These are the key questions of the case.

8 Just to pick out one, you asked multiple times,
9 why did all of the U.S. cell and module companies exit the
10 market? You heard a litany of suggestions. Trade Cases 1
11 and 2 caused that? That makes no sense. A lack of scale?
12 We've already talked about. Lack of product differential?
13 This is a product sold on the basis of price, as your report
14 has found.

15 Other key questions. Do you agree that there's
16 global overcapacity in this market? By the way, the trade
17 rag that we cited for that is Bloomberg New Energy Finance,
18 who was on respondents' panel today. Why did companies
19 invest in all of these other countries and throughout the
20 world? That's a key question. What about the pervasive
21 underselling of 72-cell modules? That's a key question.

22 Why domestic producers were unable to recover
23 their costs during this period when demand was up so much?
24 Can we really blame everything on these companies? On bad
25 bets and bad technology? So all of these are the key

1 questions of the case, and if you focus on them, you'll
2 reach the proper result. Also, as Commissioner Williamson
3 pointed out, we heard a lot about a lot of other industries,
4 which is really not the Commission's job today. We're happy
5 to discuss that in the remedy phase.

6 Now, for part of today, we heard an inaccurate
7 smear campaign of SEIA and the respondents panel. We look
8 forward to fully rebutting with the facts. The good news
9 is, you already have the facts on the record in the form of
10 your pre-hearing report. Respondents are running from the
11 statutory standard and the Commissions' evidence as quickly
12 as possible.

13 On supplier qualification, your pre-hearing
14 report states most purchasers reported that no domestic or
15 foreign supplier had failed in its attempt to qualify
16 product or had lost its approved status since 2012. Also in
17 your report, most U.S. producers, importers and purchasers
18 reported that U.S.-produced products were interchangeable
19 with imported CSPV products. That's Table V-8.

20 Bankability. The Commission received
21 questionnaire responses from fifty-six importers. Only
22 three mentioned bankability, or Tier 1 status as an
23 important purchasing factor. Most important, of course, was
24 price. A majority of purchasers reported that they had
25 increased their purchases of imported CSPV products. The

1 number one reason cited for increasing purchases of foreign
2 products was lower price. That's 5-14 and 5-15 of your
3 report.

4 So, turning back to this case and your decision,
5 and the answer to your questions. This domestic industry
6 has been seriously injured by a global import surge. This
7 case is about a whole industry, not two companies, more than
8 thirty, as you've found. This case is about the harm that
9 was sustained throughout this period, but intensified in
10 2016 due to massive overcapacity in Asia enterprise
11 collapse.

12 Global imports have increased 500%. They've
13 taken market share from the domestic industry and all of the
14 increase in demand in the U.S. Without relief, this import
15 surge will continue. The U.S. manufacturing industry will
16 very likely disappear. So thanks to you and to the staff
17 for your stamina, your hard work, and your careful
18 consideration of this important case that matters a great
19 deal to all of our companies and all of our workers. Thank
20 you.

21 CHAIRMAN SCHMIDTLEIN: Thank you.

22 CLOSING REMARKS OF MATTHEW R. NICELY

23 MR. NICELY: Madam Chairman,
24 Commissioners, it's always hard to go last. Everybody wants
25 to go home, particularly tonight, at 8:15, but I'll make

1 this as fast as I can. You may recall my annoying question,
2 which doesn't happen very often in these proceedings, to Mr.
3 Card today. The article that he mentioned in which my
4 client, CEO, Abby Hopper, what she had said was, and I
5 quote, "Grid parity is of the utmost importance so that we
6 are competing on price and price alone." She was talking
7 about price competition between CSPV and natural gas and
8 wind, thin-film, other forms of energy. Not CSPV versus
9 CSPV.

10 The point is, we're in an industry here where
11 we're competing against other forms of energy. We have
12 finally gotten to the point where we're actually at that
13 point, as Amy Grace showed you today, we finally got there.
14 And as several of the other industry witnesses showed you.

15 We're there and as a result, demand boomed,
16 right? We got there because what Swanson's Law said would
17 happen, happened. And it finally got down to that point
18 where we could actually compete against other forms of
19 energy.

20 Electrons are what are the substitutable product
21 here. And you're dealing with substitutable products that
22 are ultimately sending out electrons, right? That is, it's
23 probably the most freely substitutable product on the
24 planet. And for petitioner to deny that undeniable fact is
25 simply ludicrous.

1 The decline in price because of the
2 technological advances was complete foreseen. It happened
3 like clockwork thanks to the work that Mr. Swanson talked
4 about. The problem is, is the petitioners didn't see it
5 coming, because they didn't do their homework. The missed
6 opportunities here are so severe. Why not scale up right
7 after getting ABCDB relief as Dan Shugar said today?

8 They didn't do it. And therefore, simply
9 couldn't come close to meeting the booming demand that
10 happened in 2015 and 2016. They couldn't do it. There's no
11 way they could actually supply the utility-scale sector at
12 the levels you heard Craig Cornelius talk about today. Why
13 didn't they? Think about the other missed opportunities.
14 Why didn't they try to qualify to sell to the biggest
15 residential developer in the country?

16 Now, petitioners focus your attention on a map
17 that shows about forty companies that have gone out of
18 business, right? About half, as I said before, are cell and
19 module producers. Some of those that are cell and module
20 producers opposed trade relief, either in the ABCDB cases or
21 here. Others went out of business.

22 Well, for the other half, it's unclear how they
23 went out of business or why they went out of business, but
24 it's worth mentioning that they are maybe 20 out of 600
25 solar manufacturing businesses in this country. So the

1 number that have gone under is a small percentage. There
2 are almost 40,000 solar manufacturing jobs in the United
3 States.

4 Only a small portion of which are cell and
5 module manufacturers. These are just some of the jobs that
6 will go away with the imposition of Section 201 relief in
7 this case. The notion that 45,000 jobs will be created as
8 they've said is preposterous. The duties will increase
9 price, reduce imports and crush demand, which will eliminate
10 jobs.

11 Killing demand does not create jobs.
12 Fortunately, you don't have to actually get into the
13 analysis that that's really about, which is about remedy.
14 You don't have to consider what the import relief will do
15 because we've already shown you today that this industry
16 doesn't meet the standard for imposing Section 201 relief.

17 You heard about a lot of closures. You've heard
18 about a petitioner that's gone bankrupt. But we've shown
19 you that despite those closures, the serious injury during
20 the POI doesn't actually show up. They actually improve
21 during the course of the POI. And if you do ultimately
22 conclude that they were seriously injured, we've shown you
23 myriad ways in which imports themselves are not as important
24 a factor as multiple other factors that Tom Prusa showed in
25 his analysis.

1 And even if you don't want to go to an analysis
2 using econometric model, then consider what Jim Dougan put
3 in front of you and I hope that you'll look very carefully
4 at the confidential slides today. Because your record, even
5 without economic modeling, shows that there is no causation
6 between imports and the so-called serious injury. Thank
7 you.

8 CHAIRMAN SCHMIDTLEIN: Thank you very much, Mr.
9 Nicely. So this brings us to the end of our hearing. I'd
10 like to thank everyone who has stayed with us tonight for
11 your stamina and your attention. We very much appreciate it
12 and I would extend that thanks to anyone who's still left in
13 Courtrooms A and C. I'm not sure if anyone's still there,
14 but if you are, I really admire your stamina and attention.

15 So let me remind everyone that post-hearing
16 briefs, statements responsive to questions and requests of
17 the Commission and corrections to the transcript must be
18 filed by August 22nd, 2017, and the Commission is
19 tentatively scheduled to vote on the injury phase of this
20 investigation on September 22nd, 2017. And with that, we
21 are adjourned.

22 (Whereupon, at 8:21 p.m., the hearing was
23 concluded.)

24
25

CERTIFICATE OF REPORTER

TITLE: In The Matter Of: Crystalline Silicon Photovoltaic Cells (Whether or Not Partially or Fully Assembled into Other Products)

INVESTIGATION NO.: TA-201-75

HEARING DATE: 8-15-17

LOCATION: Washington, D.C.

NATURE OF HEARING: Hearing

I hereby certify that the foregoing/attached transcript is a true, correct and complete record of the above-referenced proceeding(s) of the U.S. International Trade Commission.

DATE: 8-15-17

SIGNED: Mark A. Jagan

Signature of the Contractor or the
Authorized Contractor's Representative

I hereby certify that I am not the Court Reporter and that I have proofread the above-referenced transcript of the proceedings of the U.S. International Trade Commission, against the aforementioned Court Reporter's notes and recordings, for accuracy in transcription in the spelling, hyphenation, punctuation and speaker identification and did not make any changes of a substantive nature. The foregoing/attached transcript is a true, correct and complete transcription of the proceedings.

SIGNED: Duane Rice
Proofreader

I hereby certify that I reported the above-referenced proceedings of the U.S. International Trade Commission and caused to be prepared from my tapes and notes of the proceedings a true, correct and complete verbatim recording of the proceedings.

SIGNED: Gaynell Catherine
Court Reporter