UNITED STATES INTERNATIONAL TRADE COMMISSION

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In the Matter of:

LARGE POWER TRANSFORMERS FROM KOREA

Investigation No.: 731-TA-1189 (Preliminary)

Pages: 1 through 184

Place: Washington, D.C.

Date: August 4, 2011

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Thursday, August 4, 2011

Room No. 220 U.S. International Trade Commission 500 E Street, S.W. Washington, D.C.

The preliminary conference commenced, pursuant to

Notice, at 9:31 a.m., at the United States International

Trade Commission, JAMES McCLURE, Supervisory

Investigator, presiding.

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On behalf of the International Trade Commission:

<u>Staff</u>:

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1 <u>P R O C E E D I N G S</u> (9:31 a.m.) 2 3 MR. McCLURE: Good morning and welcome to the U.S. International Trade Commission's conference 4 5 in connection with the preliminary phase of antidumping investigation No. 731-TA-1189 concerning 6 imports of certain Large Power Transformers From 7 8 Korea. My name is Jim McClure. 9 I am the 10 supervisory investigator for this investigation, and I 11 will preside at this conference. Among those present from the Commission staff are, from my far right, 12 Charles Yost, the auditor; Edward Petronzio, the 13 investigator; Peter Sultan, our attorney/advisor; 14 15 Clark Workman, our economist; and our two industry analysts, Dennis Fravel and Andrew David. 16 I understand the parties are aware of the 17 18 time allocations. I would remind speakers not to 19 refer in your remarks to business proprietary information and to speak directly into the 20 21 microphones. We also ask that you state your name and 22 affiliation for the record before beginning your 23 presentation. Finally, speakers will not be sworn in, but 2.4 are reminded of the applicability of 18 U.S.C. 1001 25

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with regard to false and misleading statements and for 1 the fact that the record of this proceeding may be 2 subject to Court review if there is an appeal. 3 Any questions? 4 5 (No response.) MR. McCLURE: Hearing none, we will proceed 6 to the opening statements. Mr. Luberda, please begin 7 8 your opening statement when you are ready. Thank you. Good morning, Mr. 9 MR. LUBERDA: McClure and members of the Commission staff. 10 Mv name 11 is Alan Luberda, and I'm with the law firm of Kelley, Drye & Warren. I'm here today representing the 12 domestic industry producing large power transformers. 13 The record being developed by the Commission 14 15 staff will show that dumped imports of large power transformers from Korea are a cause of material injury 16 to the domestic industry and threaten to cause 17 18 additional injury to the domestic industry going forward if not addressed. 19 Korean producers Hyundai and Hyosung have 20 publicly targeted expansion of their presence in the 21 22 U.S. market for large power transformers. They have 23 bragged in corporate documents of having dominant shares in the U.S. market for these products and 2.4 announced their aim to seek even more of the U.S. 25

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1 market. They have been making good on that goal.

Over the last three years, the domestic 2 industry has been battered by dumped imports of large 3 power transformers from these Korean producers. 4 As 5 the official import statistics show and the questionnaire data will corroborate, the volume of 6 market share of imports from Korea have significantly 7 8 increased over the period of investigation, and this growth has come directly at the expense of the 9 10 domestic industry.

As you'll hear today, the Korean producers have build their market share on underselling. They have undersold domestic producers of large power transformers at shockingly low prices. Those Korean producers are routinely reported at 30 or more percent below U.S. prices and sometimes even below domestic producers' material costs.

18 Given the Korean producers' announced 19 intention to dominate the U.S. market for large power 20 transformers, one can only conclude that these low, 21 dumped prices are an attempt, and a successful attempt 22 so far, to buy U.S. market share. They're buying this 23 market share because they have a huge capacity and 24 they must export to utilize that capacity.

25

The United States is an open market, unlike

the Korean market, and it has the largest installed base of large power transformers in the world. That makes this a natural market for them to try to capture, and their efforts are working. That's why we're here today.

The domestic industry has reported millions 6 of dollars of lost sales to the Korean industry over 7 8 the period of investigation. Korean producers have name recognition with customers and are well 9 established in this market. Their technology is known 10 11 and accepted just like that of the domestic producers. They have U.S. based sales and service personnel also 12 like the domestic industry. 13

More often than not now, however, it's a purchasing manager and not an engineer making the final purchasing decision on large power transformers, and those purchasers tell the domestic industry time and again that it's the low prices of Korean producers that are driving those purchasing decisions.

20 So that leaves the domestic producers with a 21 choice: Either lower their prices to unprofitable 22 levels to keep their facilities operating or forego 23 sales and cede the market to the Koreans. Domestic 24 producers have been forced into both positions over 25 the period, and both have been injurious to the

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1 domestic industry.

2	Given that large power transformers sell for
3	millions of dollars each, it does not take many lost
4	sales or sales booked at below cost of production to
5	cause serious injury to the domestic industry. That
6	injury is abundantly clear from the financial
7	condition of the domestic industry, which has
8	significantly deteriorated over the period of
9	investigation, while imports of large power
10	transformers from Korea have surged in, taking sales
11	and driving prices.
12	Furthermore, the Korean producers are using
13	their aggressively low-priced products to leverage
14	alliance agreements with the customers, cutting the
15	domestic industry out of future sales for multiple
16	years to come. Absent some relief as a result of this
17	case, therefore, this decline appears to be only the
18	tip of the iceberg for the industry.
19	The day we filed this dumping case I went
20	home and my 12-year-old said to me what did you do
21	today at work, Dad? I said well, I just filed a
22	dumping case on transformers from Korea. He said
23	cool. Did you time it to come out with the movie? I
24	said no, it's not the movie kind of transformers that
25	we're talking about. It's those big, gray things you

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see along the highway at power substations.

After we talked about it for a while we 2 decided the story line for Transformer movies and this 3 case were essentially the same. Both involve huge, 4 alien machines bent on domination. 5 We think the evidence is going to show you 6 that this industry deserves a Hollywood ending. I 7 8 hope the case will thwart the invasion of dumped large power transformers from Korea that are injuring the 9 domestic industry. Thank you. 10 11 MR. McCLURE: Thank you. Before we move on to Mr. Connelly, Mr. Luberda, two housekeeping things. 12 I just want to check whether the court reporter is 13 14 picking up. And the other thing is everybody take out 15 their cell phones and either turn them off or put them 16 on vibrate, as well as any other devices you may have. 17 18 (Pause.) MR. McCLURE: Okay. Mr. Connelly, Mr. 19 20 Morgan, your opening statement? 21 MR. CONNELLY: Good morning. My name is 22 Warren Connelly. I'm with the Akin Gump law firm here 23 on behalf of Hyosung Corporation and HICO America. This is a weak case by any measure. The petition, as 2.4 well as the Petitioners' questionnaire responses, 25

1 raise more questions than they answer.

2	For example, the domestic industry does not
3	exhibit the classic signs of material injury by reason
4	of unfair imports. Any declines in industry trends
5	are the result of demand declines that first surfaced
6	in 2009, late in that year, as the economy softened
7	and utilities slowed their purchasing.
8	On the other hand, investments in new and
9	additional domestic capacity have been substantial
10	over the past several years with at least four
11	domestic producers making significant investments in
12	new or expanded facilities.
13	New energy sources such as wind power have
14	created a brand new demand for transformers. For that
15	reason and more, an independent expert report that we
16	will submit for the record predicts a compound annual
17	growth rate exceeding 5 percent through the year 2015.
18	Hyosung and its U.S. marketing and service
19	subsidiary, HICO America, do not engage in price
20	undercutting. They bid for contracts on a cost plus
21	basis, and, quite frankly, they lose more contracts
22	than they win. Hyosung competes on the basis of
23	quality, service and reputation.
24	We don't claim that price doesn't matter.
25	Rather, many other factors matter just as much, if not

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more. The Petitioners frequently are not even qualified to bid on significant projects.

In addition, while we read the bid 3 information that the Petitioners submitted, we did not 4 see substantial evidence of lost sales or lost 5 In the questionnaire, the staff asked each 6 revenue. of the Petitioners to list their 25 largest bids since 7 g 2008. Of the total of 75 bids that were reported, the Petitioners listed a lost sale to HICO a minimum 9 number of times. 10

11 The apparent lack of competition for the largest contract awards also raises a significant like 12 product issue. At this time, the record does not 13 contain a clear indication of what capacity 14 transformers the domestic industry actually produces 15 or is capable of producing. We acknowledge that they 16 can produce at the 60 MVA and below level, but just 17 18 how far above that level they can go remains unknown.

Equally important, it appears that the domestic industry has not produced much, if anything, at the 300 MVA level or above, which is the size range where Hyosung concentrates its efforts. This fact indicates a very significant possibility of attenuated competition.

Finally, we think the staff needs to

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1 investigate the effect of nonsubject imports, which

2 are substantial even by the Petitioners' own

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3 calculations. There are very significant other4 foreign competitors out there. Thank you.
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5 MR. MORGAN: Good morning, Mr. McClure and 6 members of the Commission staff. My name is Frank 7 Morgan with White & Case. I'm here today on behalf of 8 Hyundai Heavy Industries, Hyundai USA and Hyundai 9 Power Transformers USA.

10 If I could use only one phrase to describe 11 Petitioners' case it would be this: Trying to fit a 12 square peg in a round hole. This is not a typical 13 case. For starters, Respondents have been present in 14 the U.S. market for decades and have made significant 15 commitments and investments in it.

16 The products in this case are made-to-order and cost millions of dollars each. There are so many 17 18 factors other than price that determine who wins a bid that I would use my entire remaining time listing them 19 all. And how often does the Commission see a petition 20 filed when hundreds of millions of dollars in new 21 investment by existing, as well as new, industry 22 23 members are being poured into the U.S. market? The fact that this is not a typical case 2.4

does not mean that the Commission should not find in

the Respondents' favor now. A few straightforward
 questions to the Petitioners show why it should do so.

What percentage of each company's production was for power transformers above 300 MVA capacity and what was the crane capacity at that facility? What is the maximum voltage level above which each company cannot produce? What percentage of each company's sales were made in open bids?

9 What is the panel's outlook for the U.S. 10 market for the remainder of 2011 and for 2012? What 11 was the operational issue and what were the effects on 12 ABB's capacity utilization that were noted on the 13 July 21, 2011, earnings filing?

The evidence will show that there is limited competition between Korean and U.S. made transformers both in terms of MVA capacity and voltage. The Korean power transformers did not win bids through underselling, and any changes in the domestic industry's condition have nothing to do with Korean transformers.

As for threat, every factor the Commission typically considers points to a negative determination. The recent and ongoing investment of hundreds of millions of dollars in new U.S. capacity compels it. Thank you.

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MR. McCLURE: Okay, Mr. Luberda. You may 1 begin with your presentation. You have an hour. 2 MR. LUBERDA: Thank you, Mr. McClure. I'd 3 just like to first take a minute and introduce my 4 5 colleagues from Georgetown Economic Service and the firm. 6 I'm here with Kathleen Cannon from Kelley 7 8 Drye and two of our colleagues from Georgetown Economic Services, Gina Beck and Mike Kerwin. 9 I'm going to allow our industry witnesses to introduce 10 11 themselves. You have heard what our Korean friends have 12 said the case looks like, so now let's tell the story 13 from our side. First up is Deidre Cusack of ABB. 14 MS. CUSACK: Thank you. Good morning. 15 I'm Deidre Cusack. I'm the Senior Vice President and 16 General Manager of ABB's Power Transformers Operations 17 18 here in North America. ABB has joined the other Petitioners in 19 filing this action to address the dumping-driven, 20 aggressive sales and pricing behavior by Korean 21 22 producers of large power transformers that has caused 23 severe harm to my company and to our industry. By way of background, ABB is one of the 2.4 world's leading engineering companies. Our focus is 25

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on helping customers use power effectively. We
 manufacture large power transformers pursuant to
 demanding industry standards.

ABB's transformers are designed to ensure reliability, durability and efficiency. We take pride in our product, our company and our employees and consider ourselves well equipped to compete with any company in the world operating on a fair trade basis.

9 In the United States, ABB and its legacy 10 companies have been producing power transformers for 11 over a hundred years. We manufacture large power 12 transformers primarily in our St. Louis, Missouri, 13 facility.

As Mr. Stiegemeier will describe, the production of large power transformers is complex, sophisticated and requires a large investment of physical and moving capital. Producing a transformer can take as much as a year from the design phase until it gets through production.

The Korean imports of transformers first began to gain wider acceptance in the U.S. market about 10 years ago. Over the past few years, however, imports of large power transformers from Korea have surged into the United States wrecking havoc in our market with their inexplicably low prices.

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Hyundai is a massive Korean producer of large power transformers with a capacity that we setimate is about 10 times ABB's U.S. capacity. This capacity buildup at Hyundai was not designed to serve its home market, but instead was intended for export.

6 Hyundai is a substantial exporter of large 7 power transformers, and the U.S. market is the biggest 8 market in the world for that product. Hyundai has 9 aggressively sought increased market share in the 10 United States through its low pricing policies. In 11 fact, Hyundai has not made secret of its focus on the 12 U.S. market as a target for these exports.

Hyundai's announcement of the opening of a plant in Alabama to produce large power transformers does not alter either the injury that it has caused to U.S. producers to date or the likely future injury it will cause from its Korean production.

18 My understanding is that the Alabama facility will not begin production of transformers 19 until 2012 and that when it does begin production it 20 21 will focus on small power transformers. They will 22 also need to qualify the new facility with customers. 23 It is likely to be a couple of years before the new facility in Alabama will be able to produce large 2.4 power transformers subject to this case. 25

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Hyundai's Korean facility meanwhile is continuing to aggressively bid on large power transformers. We anticipate that Hyundai, with its much larger capacity in Korea as compared to Alabama, will continue to supply the U.S. market with large power transformers solely from Korea for at least the next two to three years.

8 Korean producer Hyosung is also a 9 significant, globally oriented producer and has 10 targeted the U.S. market with its exports. It 11 recently announced plans to enlarge its customer base 12 globally and to increase its exports, including those 13 to the United States, whereas it also increased its 14 market share in recent years.

Both Hyundai and Hyosung's announced goals 15 of growing their share of the U.S. market have been 16 That success has been accomplished by 17 successful. 18 unfair pricing methods. The Korean producers sell 19 large power transformers at unbelievably low prices. We believe that their pricing levels often do not 20 21 cover the cost. We frequently see underselling by the 22 Korean producers of 30 percent or more.

These low pricing practices by Hyundai and Hyosung have intensified in recent years, leading to lost sales and lost revenue by ABB. We have provided

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you with details of the millions of dollars in sales
 ABB has lost to Korean imports due to much lower
 prices that they offer.

The consequences to ABB of this unfair pricing behavior have been devastating. ABB has had to cancel planned expansion projects, has been forced to reduce capital investments and has even been forced to take orders at negative margins at times simply to obtain some business to keep our employees at work.

Despite taking these steps, we have had to reduce our workforce as our production and shipments have fallen. Recently we were forced to lay off a significant part of our workforce at our St. Louis facility due to declining sales and profit caused by unfair competition from the Korean imports.

When ABB is able to obtain a sale it is at a 16 depressed price, causing a deterioration of our 17 18 financial position as well. Relief is badly needed to prevent a continued decline in our trade and financial 19 condition. ABB is an efficient producer of a quality 20 product. We are able to meet our customers' needs, 21 but we are unable to make sales when the import price 22 23 competition is so much lower.

The Korean dumping behavior must be offset to restore the ability of ABB and other U.S. producers

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1 to compete in our own home market. Thank you for your 2 attention.

MR. LUBERDA: Mr. Stiegemeier? 3 MR. STIEGEMEIER: Good morning, everyone. 4 5 My name is Craig Stiegemeier, and I'm the Business Business Development and Technology Director for ABB's 6 Transformer Service business here in North America. 7 8 I've been in the large power transformer business for a little over 32 years. I started as a 9 10 development and design engineer for power transformers 11 and have also been the operations manager for the St. 12 Louis plant. My job today is to explain what exactly a large power transformer is, how it works and what it 13 does. 14 I will have some pictures and diagrams for 15 you to refer to as I speak. I don't mean to turn the 16 lights out on everybody, but I think it will be a 17 18 little more visible. 19 MR. McCLURE: If counsel or anybody needs to 20 adjust, and I'm sorry. All I can offer is a wall for 21 you to lean against. If Mr. Connelly or any folks 22 need to look at the pictures --23 MR. LUBERDA: Mr. McClure, we have put out copies of all the slides --2.4 MR. McCLURE: Yes. 25

1 MR. LUBERDA: -- so they are available to anybody who needs them who can't see them. 2 3 MR. McCLURE: Okay. If anybody needs to run over and get those, why don't you do it now, okay? 4 5 MR. STIEGEMEIER: Okav. MR. McCLURE: Fire away. 6 MR. STIEGEMEIER: Thank you, Mr. McClure. 7 8 The technical definition of a large power transformer is that it's a component used in high voltage electric 9 10 power transmission systems to transfer power by 11 electromagnetic induction between circuits at the same frequency, usually with a changed value of voltage 12 occurring. 13 Let me try to explain that in practical 14 As use of electric power expanded from the 15 terms. late 1800s, the size of power generators also expanded 16 to feed the growing electrical consumption. 17 The limit

of efficient power generation, which occurs at hydro or fossil plants, and the power that must be transmitted long distances you can only generate at 20,000 to 30,000 volts.

To be efficient, transmission occurs at a higher voltage, something between 60,000 and 800,000 volts. But of course we all want to consume that electricity at a much lower voltage, something like

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1 110 to 220 volts.

2	Large power transformers are the devices
3	that are used to increase the voltage and the electric
4	current from the generation voltages, transmit at the
5	higher voltages and then reduce it again to the lower
6	voltage of the distribution system. Smaller
7	transformers distribute the electricity and redirect
8	it to the levels that we need in our homes, businesses
9	and industry to consume the power.
10	Large power transformers work on two
11	principles in electromagnetic force. First, when
12	electricity is flowing through a conductor it creates
13	an electromagnetic field. Second, when that
14	electromagnetic field moves across a second electrical
15	conductor it induces a voltage in that conductor, even
16	though there's no direct connection between them.
17	This induction effect requires an
18	alternating or constantly changing current to work.
19	Alternating current flowing into an input conductor
20	creates a magnetic field which induces an output
21	voltage of a second conductor.
22	The active part of the large power
23	transformer or the part in which the electromagnetic
24	induction is taking place has several important parts.
25	The first is a core of high permeability, grain-

oriented, silicon electric steel around which the primary and secondary conductors will be wound. Grain-oriented electrical steel is used because it has low core loss and high permeability, which provides increased efficiency and less energy loss during the induction process.

7 The core is not a solid piece of metal, but 8 is made of a number of very thin laminations that may 9 be laser scribed and are each coated with a glass-like 10 insulating material commonly referred to as carlite. 11 The core laminants are cut into shape and stacked a 12 few sheets at a time and are the material around which 13 the windings are wound.

The vertical portions of the core are 14 usually called the limbs or the legs, and that's these 15 three vertical parts I'm showing here. The top and 16 bottom portion of the core is called the yolk, and 17 18 that's the horizontal pieces that I'm referring to here. For a large transformer, these limbs are almost 19 always oriented vertically to assist in shipping the 20 21 product from the producing factory to the customer's 22 point of use.

The purpose of the core is to contain the magnetic flux created by the alternating current from the input conductor or primary winding. A significant

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part of the engineering design of the large power transformer core is focused on minimizing the size of the core to the greatest extent possible based on the size of the transformer that helps both to reduce core losses and facilitate shipments through tunnels and under bridges.

7 Primary and secondary conductors are made 8 typically of copper wire and are wrapped around the 9 core material. The pattern of the winding 10 specifically will depend on the size, type and design 11 of the transformer and whether or not the winding is a 12 high voltage or a low voltage and high current winding 13 or a high voltage with lower current.

14 The conductors consist of thin strands of 15 copper insulated with paper. Paper insulation and 16 spaces made of pressboard are added between the 17 windings. The low voltage winding is typically placed 18 closest to the steel core and the high voltage winding 19 is often placed outside of the low voltage winding, 20 minimizing the amount of insulation required.

As you can see, here are a couple of windings in production. These winding patterns vary by large power transformer design. The process of winding can take weeks to accomplish on some designs, and each large power transformer is essentially wound

by hand. By changing the ratio of the primary input
 winding to the secondary output winding, the
 transformer can vary the output voltage that is
 created either upward or downward.

5 Most of the illustrations you've seen so far 6 in the presentation reflect the core type transformer. 7 There are also shell type transformers, which you can 8 see at the bottom of this slide. From a physics 9 standpoint they work the same and essentially have the 10 same parts as a core type transformer.

However, in detail on a shell type transformer the windings are more enclosed within the electrical steel core material. This technology typically requires more grain-oriented electrical steel relative to the core type large power transformer. A drawing showing the difference is provided in this slide.

18 Once the windings are produced and completed around the core, the active part is assembled and 19 thoroughly dried in an oven to remove all the moisture 20 from the paper, pressboard and spaces between the 21 22 winding. When the moisture content of the active 23 parts has been reduced to less than one-half of 1 percent typically, and that's by weight of the 2.4 pressboard or paper material, it is sealed in a steel 25

1 tank. Here you can see it put into the tank. The 2 sealing isn't quite done. There's a cover put on the 3 tank.

By the way, this is all the same transformer at different stages of production. This is the active part I referred to. This is after it's been dropped in the tank, and this is when it's fully assembled sitting on the test floor.

9 These transformers are actually very 10 efficient. A large power transformer is typically 11 more than 99.8 percent efficient, but due to the large 12 quantity of energy moving through the transformer the 13 losses are significant and heat needs to be 14 dissipated.

15 Large power transformers must have cooling systems to dissipate this large amount of heat, and 16 that's what you see in these radiators and fans, a 17 18 radiator much like your car engine has, except much larger obviously. These systems may include pumps, 19 fans and heat exchanger units, as well as some sort of 20 21 an oil expansion or preservation system, and that's 22 the tank you see here off to the right of the 23 transformer.

On the outside of the tank are bushings,which connect through transmission lines to the active

part of the transformer. There will also be various controls to allow the unit to be operated remotely and monitoring devices to monitor the temperature of the transformer, the condition of the oil and other key information.

6 Transformer size is determined by the MVA of 7 the load, the secondary output voltage and the primary 8 input voltage. Typical voltages for large power 9 transformers over 60 MVA can run from 69,000 up to 10 765,000 volts here in the U.S., but are typically at 11 least 115,000 volts.

12 Large power transformers are very engineering intensive products and are used in 13 critical applications. For example, if a 200 MVA 14 power transformer goes down, it's going to affect 15 thousands of end users. The product must be carefully 16 engineered and meticulously built. Each large power 17 18 transformer is essentially unique to the application and is built by hand to the exact customer's 19 20 requirements.

Testing is also a critical part of the process to ensure the accuracy of the voltage ratios, verify the power rating and determine what the impedances are of the transformer. The design, production and testing process for large power

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1 transformers can easily take a year or more to 2 complete and often involves continuous interaction 3 with the customer or its consultants as it's that key 4 in their network.

As a result, the personnel at our power generation and transmission customers that are in charge of the bid, selection and construction process are typically different than those who oversee the process for smaller distribution transformers. Even a small fault in one of these huge units can render the entire transformer unusable.

Given the significant capital investments involved for us and our customers, neither we nor our customers of course want that to happen and so the process tends to be very, very interactive with the customer.

This is that same transformer you saw on the earlier screen, but it's broken down for shipment. We literally have to peel everything off of it so that it will fit through tunnels and under bridges when it's sitting on a railroad car. This screen gives you an idea just how big that transformer is.

A company of course has to have very large cranes, drying and processing ovens and test equipment to successfully produce and test large power

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transformers. If a facility is sized to make large power transformers, the company is going to be likely to focus that facility to the extent possible on the larger sized units.

At ABB, we build large power transformers primarily at our St. Louis facility, which has the processing cranes, testing equipment and other equipment necessary to handle these large power transformers.

I hope this overview has provided you with a better understanding of exactly what a large power transformer is, and of course I'll be happy to answer any questions you may have at the appropriate time. Thank you.

MR. LUBERDA: Thank you, Mr. Stiegemeier.
Next we're going to hear from Steve Newman from Delta
Star.

18 MR. NEWMAN: Good morning. My name is Steve 19 Newman. I've the Vice President of Delta Star, and 20 I've held this position for the past five years. As 21 vice president, I oversee the sales and marketing of 22 power transformers.

I'd like to address today the problem that
Delta Star has faced in attempting to compete with the
low-priced imports from Korea in the U.S. market.

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Delta Star was established a hundred years ago and
 entered the transformer market in the 1950s. We have
 manufacturing facilities in Lynchburg, Virginia, and
 San Carlos, California, which is near San Francisco.

5 In 1988, the company was sold to the Delta 6 Star Employee Stock Ownership Plan, which is an ESOP. 7 Delta Star is unique in this industry in that it is an 8 employee-owned company. At Delta Star, we pride 9 ourselves in providing high-quality, reliable, custom-10 made products to satisfy our customers' specifications 11 in the large power industry.

Delta Star has long considered itself to be a leader in the industry in terms of product quality and in customer satisfaction. Unfortunately, despite our long years of experience and commitment to quality, Delta Star has been struggling to compete in sales of large power transformers with the unfairly traded imports of transformers from Korea.

19 Over the past three years, we've seen our 20 profits decline due to imports from Korea that 21 consistently undercut our prices. Because we're an 22 ESOP, we have made a decision not to lay off our 23 workers as other industry companies have done. 24 Instead, we've tried to maintain our workforce, but 25 we've been forced to obtain sales at unprofitable

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price levels in order to compete with the unfairly
 priced imports from Korea.

Mr. Stiegemeier discussed that large power transformers are a massive product and are produced to order and sold to a number of different customers, including power generation and transmission companies and utilities.

8 Competition for sales of transformers occurs 9 through a bid process. The purchaser sends us a 10 commercial specification on which to bid. Delta Star 11 then undertakes the development of a design and then 12 estimates the cost for that specification.

Although there may be some opportunities to submit a second bid, most often only one bid is considered by the purchaser. Our participation in the market over many years gives us a general sense of what the price level is and what would be needed to gain the business.

19 In the past few years, the prices at which 20 Delta Star has been forced to compete to obtain sales 21 have become increasingly depressed. The Korean 22 producers undercut our prices by huge amounts, often 23 pricing at 30 or 40 percent below our price levels and 24 well below our cost.

25

For the past two years, knowing what we do

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and what we're up again, Delta Star's initial public offering on most projects has been at a price which we would lose money if we win the bid. When bidding against the Koreans, only by selling at a loss can Delta Star hope to obtain business at all and retain the market share, thus keeping our employee owners at work.

8 Obviously things need to improve soon so we 9 can cover our cost and earn some level of profit to 10 remain in business. The low prices at which we are 11 forced to bid are a direct result of competition of 12 imports from Korea.

Over the past two years, the Korean 13 producers have become increasingly aggressive in their 14 15 pricing practices. This aggressive pricing behavior has enabled Hyundai and HICO to increase their sales 16 in the United States at the expense of Delta Star and 17 18 other U.S. producers. Even at the low level prices at which Delta Star eventually bids, we still lose sales 19 20 to Hyundai and HICO.

The prices at which Korean producers bid large power transformers generally allow for no room whatsoever for us to earn a profit. We either lose bids to the low-priced Korean producers or we win the bids, but must sell the transformers at an actual

loss. We and our employees are in a lose/lose
 position in the current market.

You should also recognize that much of the business that we and other U.S. transformer manufacturers lose to Korean producers is not always identifiable in a head-to-head bid competition of the type that you have in your questionnaire.

8 In our business, a number of customers set 9 up what are called blanket agreements with long-term 10 alliances for specific suppliers. Large, investor-11 owned utilities typically set up alliances for between 12 two and five years and lock in one particular supplier 13 over that period of time.

A recent example of such an alliance was the 14 15 decision by Southern Cal Edison to purchase large power transformers from Hyundai for multiple years. 16 The Southern Cal Edison alliance alone reportedly 17 18 quaranteed Hyundai hundreds of millions of dollars in business over the next couple of years, while Delta 19 Star and other U.S. producers effectively lost out on 20 21 any opportunity to bid those transformers.

And this alliance is just one of many. Delta Star will submit in confidence in our brief an example of an alliance for which we were competing for a customer who we lost out to Hyundai who locked in

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another three-year alliance based on its low-price offering. Hyundai's ability to secure that one alliance alone is huge and has a major impact on the industry.

5 Without some restraint on this unfair 6 pricing behavior, the outlook for Delta Star, the 7 outlook for the other members of the U.S. industry, is 8 bleak. I'm not seeing any sign of significant 9 increase in demand for large power transformers in our 10 market looking out over the next year or two.

If these unfair prices continue, Delta Star will continue to lose sales, will continue to be forced to sell at depressed prices and will continue to struggle financially. On behalf of my company and its employees, I urge the Commission to help us obtain the remedial relief we so badly need. Thank you.

MR. LUBERDA: Our next witness will beDennis Blake from Pennsylvania Transformer.

MR. BLAKE: Good morning. I am Dennis
Blake, General Manager of Pennsylvania Transformer
Technology, Inc.

I have worked in sales and marketing with several U.S. manufactures of transformers and have spent my entire career since 1988 working with transformers and electric utilities. I have marketed
transformers to all types of purchasers, including
 industrial utilities, cooperatives, municipals,
 industrial users and government agencies.

Pennsylvania Transformer produces large
power transformers in its facility in Canonsburg,
Pennsylvania. This facility has a shop floor over one
million square feet, making us the largest transformer
production facility in the United States in terms of
square footage.

Our facility was previously owned by McGraw Edison and Cooper Power Systems and has been under the current ownership since 1996. We have made numerous major investments in our factory in terms of physical plant, capital equipment and computer hardware and software for our transformer design.

Our Canonsburg facility is capable of making a wide range of large power transformers from 60 MVA up to 500 MVA. Large power transformers are not off-the-shelf items, but are produced to the individual specifications of the customer.

21 Our interaction and our cooperation with our 22 customers start from the beginning of the design 23 process, and many customers will actually come in to 24 our shop floor in order to inspect individual 25 transformers. We continue to work with our customers

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through the transportation and the installation of the
 unit.

The Korean manufacturers sell their product in very much the same way. In fact, both Hyundai and Hyosung have a substantial sales force in the United States. These companies are extremely focused on the U.S. market, and they do produce a good quality product. That being said, what really mystifies me is that the Korean manufacturers price so low.

10 The fact is that the Korean producers are 11 buying market share. The situation has become chronic 12 in the last three years. We see a tremendous 13 competitive rivalry between the two companies, Hyundai 14 and Hyosung, and the U.S. market has become the ring 15 in which they are fighting for supremacy.

16 As a result, the Korean imports have taken a dominant share of the U.S. market for large power 17 18 transformers, and domestic producers have been the clearest victims of this battle. In fact, a Korean 19 producer has made it clear to my company that they 20 21 plan on crushing any producer that stands in their 22 path to dominate the U.S. market for large power 23 transformers.

The competition from Korean manufacturers is notable in a number of ways. Of significant concern

to us is the number of blanket agreements that are being won by the Korean imports. These are long-term agreements between utility companies and producers of large power transformers through which the utility commits to purchase exclusively or nearly exclusively from the manufacturer under the agreement.

7 The Korean producers have brought an 8 increasing number of these blanket agreements. What 9 that means is we cannot even bid on these projects for 10 a period of three to five years and that instead of 11 losing just a single sale we lost several years worth 12 of power transformers and millions and millions of 13 dollars.

Another notable way in which the Korean 14 producers compete is by concentrating on the up and 15 coming areas of the market such as power generation 16 via renewable energy sources. While there was 17 18 excitement in our industry at the prospect of new wind farms being built across the United States and their 19 associated need for step-up transformers to allow them 20 to feed the electrical grid, we have been very 21 22 disappointed by the actual level of sales achieved. 23 The reality is that we have now been

24 completely shut out of that production for the wind 25 farm transformer market because the Korean

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manufacturers have essentially dominated this market
 with their low-ball pricing.

As a result of the low prices offered by 3 Korean producers, we have lost sales volumes and have 4 5 been forced to bid lower on the project we have access to. So far this year, our inquiry levels are down 6 significantly. Our pricing levels in 2011 are the 7 8 weakest they've been in the entire 2008 to 2011 period you are examining. We are concerned for our future. 9 10 The recent trends that we have experienced cannot be 11 allowed to continue.

Pennsylvania Transformer had a long and 12 proud history as a producer of large power 13 transformers. We currently have plenty of unused 14 15 capacity and would love to replace some of the production workers that have left our company over the 16 last couple of years. In fact, we could readily 17 18 double our output of large power transformers if market conditions warranted. 19

We hope that this current action will act to restrain the Korean manufacturers and their efforts to buy up the U.S. market so we can start to gain back what we lost in recent years. Thank you. That concludes my testimony.

25 MR. LUBERDA: Thank you. Now we will hear

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1 from Mike Kerwin from Georgetown Economic Services.

2 MR. KERWIN: Good morning. I'm Mike Kerwin 3 of Georgetown Economic Services. This morning I'd 4 like to discuss trends in imports and conditions of 5 competition in the U.S. market for large power 6 transformers.

7 The U.S. market for large power transformers 8 is characterized by the conditions of competition. 9 Large power transformers are not the type of product 10 that the Commission typically sees in its injury 11 investigations. Because of their size and expense, 12 large power transformers are not inventoried, but 13 rather are produced to order.

Purchasers, which include investor owned 14 utilities, public utilities, electrical cooperatives, 15 power plants and industrial users, provide precise 16 specifications for the transformers they need in 17 18 requests for quotes that go out to the industry. 19 These are highly detailed documents, and large power transformer producers that bid on the projects invest 20 a significant amount of time and engineering effort in 21 22 reviewing the specifications, costing out the elements 23 of design and putting together a formal bid.

Sometimes the purchasers will providefeedback to the large power transformer producers to

allow them to modify bids, but more often than not the 1 competing producing will be considered solely on the 2 basis of their original bid price. Given that all 3 bidding producers are generally capable of producing 4 5 the transformer at issue and meeting the specifications of the purchaser, price becomes the 6 deciding factor when the purchaser awards the contract 7 8 to the producer.

9 To the extent that the market has a price 10 leader that begins to demonstrate its ability to win 11 contracts on the basis of a low price, other producers 12 have little option but to follow down such pricing if 13 they want to win orders.

As you've heard from our industry experts, 14 15 the last several years Korean producers Hyundai and Hyosung have been the price leaders in the U.S. market 16 for large power transformers, offering prices that 17 18 have been 30 percent or more below those offered by U.S. manufacturers. Because of the unusual nature of 19 20 the market and the sales process, an underselling analysis of the type typically performed by the 21 22 Commission is not really feasible in this case.

23 We appreciate your willingness to collect 24 bid data from the producers and importers of large 25 power transformers. We believe that those data, in

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conjunction with the specific lost revenue and lost sales information we have provided, will make it clear that the unfairly priced imports from Korea have been winning contracts and placing downward pressure on the domestic producer prices with increasing frequency and significance.

7 In assessing those data, please bear in mind 8 that the loss of a single large power transformer is 9 highly significant. With an average selling price per 10 unit in the vicinity of \$2 million, it is hard to 11 overstate the injurious affects of the contracts being 12 taken by the Korean imports.

The United States has the largest installed 13 14 base of large power transformers in the world, and that installed base is aging. Over the long term 15 there's a general belief in the industry that demand 16 for large power transformers will increase as elements 17 18 in the power grid are replaced with new, more efficient units. There's also hope that the move 19 toward more sources of renewable energy will help to 20 21 increase demand for large power transformers.

These points would be cause for optimism by the domestic industry and have contributed to the newly announced and expanded capacity being built in the United States. Unfortunately, the U.S. market has

proven to be very attractive to the Korean producers
 as well. They have ramped up participation in the
 U.S. market, driven by significant and aggressive
 underselling.

5 They are dominating the U.S. market now, and 6 they are positioning themselves through dumping driven 7 underselling to be the beneficiaries of any market 8 grown at the expense of the domestic industry. In 9 fact, despite recent declines in U.S. demand, the 10 imports from Korea have grown just the same.

11 I would note three additional points in this First, there's no indication that demand for 12 regard. large power transformers is going to increase 13 significantly in the near term. In fact, domestic 14 producers have told us that their current order books 15 provide no indication of any improvements over the 16 next 18 months. From a booked business standpoint, 17 18 conditions are actually worse now than they were a 19 year ago.

20 Second, as to the renewable energy sources, 21 you heard from Mr. Blake that the domestic industry's 22 hopes in that regard are not turning out as originally 23 anticipated. Rather, the growth in areas such as wind 24 farms has been almost exclusively grabbed by 25 low-priced Korea imports.

1 Third, general trends in U.S. electricity 2 generation and consumption do not provide any evidence 3 of significant increases in future demand for large 4 power transformers. Much of the current emphasis in 5 the electrical power sector is on offsetting demand 6 growth via improved efficiency and conservation.

According to the data of the U.S. Energy Information Administration, electricity generated in the United States is projected to increase by less than 1 percent in total between 2010 and 2015. Thus, increases in electricity generation capacity in the coming years will not provide any meaningful avenue of growth in demand for large power transformers.

Despite weak market conditions during the 14 period of investigation, imports of large power 15 transformers from Korea have increased dramatically in 16 terms of volume, value and market share. Korea has 17 18 become the dominant supplier of imports of large power transformers into the U.S. market and dwarfs the share 19 held by any other source country. The millions of 20 dollars in lost sales reported by the Petitioners are 21 22 quite consistent with this picture.

In sum, the import trends in lost sales are totally supportive of the statements of our industry witnesses that imports of large power transformers

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from Korea have surged into the U.S. market over the
 period of investigation at the direct expense of U.S.
 producers.

As you'll hear from our next witness, Gina Beck, the prices of those imports and their effect on the domestic industry readily support the conclusion that these imports have caused material injury to the U.S. large power transformer industry.

9 MS. BECK: Good morning, Mr. McClure and 10 staff. I am Gina Beck of Georgetown Economic 11 Services. This morning I will discuss the pricing 12 effect and impact of dumped imports on the U.S. large 13 power transformer industry, as well as the threat of 14 injury from imports from Korea.

15 The increase in imports from Korea on a 16 volume and market share basis has been achieved by underselling U.S. producers' prices. Based on 17 18 head-to-head comparisons of U.S. and Korean large 19 power transformer bid prices as compiled in Exhibit 8 of the petition, subject import prices show widespread 20 underselling of U.S. producer prices by significant 21 22 margins in the double digits.

Underselling by unfair imports from Korea
has resulted in the suppression and depression of the
prices at which U.S. producers have sold large power

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transformers or LPTs for short. The market share by imports from Korea have been at the expense of U.S. producers. The volume of U.S. LPT shipments decreased over the 2008 to 2010 period and during the interim period 2011. These declines are evidence of the numerous sales lost to unfair imports.

Due to these lost orders, U.S. producers had 7 8 to lay off employees, as you've heard from the industry witnesses. Moreover, as the Korean producers 9 10 used low prices to obtain more blanket agreements, 11 they are precluding domestic producers from obtaining future orders as well. 12 The domestic industry has ample capacity to satisfy market demand, but has been 13 unable to win those opportunities due to the low 14 prices offered by Korean producers. 15

In addition, the financial performance of 16 the domestic LPT industry has deteriorated over the 17 18 POI due to significant underselling by imports and sales lost to imports from Korea. U.S. producers 19 experienced substantial declines in net sales value 20 21 and profitability from 2008 to 2010 and during the 22 first half of 2011. Operating income as a ratio of 23 net sales value also declined over the POI to a low point in interim 2011. 2.4

25

The causal link between the rising import

market share and U.S. producers' declining profits is corroborated by the numerous lost sales examples presented by the domestic industry. Further, the prices at which U.S. producers now have to bid in order to compete against the Korean producers, as you heard from our witnesses today, are below their cost of production.

8 The U.S. LPT industry is also threatened 9 with injury by imports of LPTs from Korea. The two 10 major Korean producers of large power transformers are 11 Hyundai Heavy Industries Company and Hyosung 12 Corporation's HICO Division. These companies are both 13 large, export oriented producers.

Hyundai is a globally oriented producer that 14 15 publicly boasts capacity of 120,000 MVA per year, enough to swamp the U.S. market. Its transformers are 16 exported around the world with a significant volume 17 18 directed to the United States. Hyundai's 2010 annual report highlights its focus on the U.S. market as a 19 target for its exports and estimates that it already 20 21 has a 40 percent share of the U.S. market for high 22 voltage transformers.

Hyundai also stated in its annual report that it had obtained a 10-year, \$600 million commitment to provide large power transformers to

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1 Southern California Edison over the next six years.

2 This represents a huge loss of potential sales to the3 domestic industry.

4 The other Korean producer, Hyosung, 5 manufactures a full range of LPTs. Several years ago, 6 Hyosung reported that the strategy for its Power 7 System Division was to "increase exports" to "expand 8 business into overseas markets." Because the U.S. has 9 such a large installed base of power transformers, it 10 is a natural target for that expansion.

Hyosung has been very successful in 11 achieving its announced goal. The Korean Times 12 reported in May 2010 that Hyosung had already reached 13 a market share of more than 20 percent in the United 14 States. Hyosung's U.S. affiliate, HICO America, has 15 helped to increase its share of the U.S. market by 16 providing installation, testing and other services to 17 18 its large power transformer customers in the United 19 States.

20 Both Hyundai and Hyosung have achieved these 21 export goals with the encouragement of the Korean 22 Government. In January 2010, the Korea Trade 23 Investment Promotion Agency pointed to power 24 transformers as one of the top five promising items 25 for export from Korea.

The rapid growth in imports of LPTs from 1 Korea is further evidence of the threat posed by these 2 imports. U.S. imports of LPTs from Korea showed 3 dramatic increases on the value and volume basis over 4 a very short period of time. 5 This rapid surge in the volume and market share of imports from Korea 6 demonstrates that these imports represent a real and 7 8 imminent threat to the U.S. industry and that subject producers can and will increase export volumes to the 9 United States if left unchecked. 10

Inports from Korea have also had a negative effect on domestic prices and have led to millions of dollars in lost sales. These lost sales of dumped imports will continue as long as imports continue to be sold at significant margins of underselling as documented in the petition.

Absent the imposition of duties, it is 17 18 likely that exports to the United States of LPTs from both Hyundai and Hyosung will continue to increase and 19 pose a threat given the huge capacity of the Korean 20 21 industry, encouragement from the Korean Government to 22 boost exports, a demonstrated focus on the U.S. 23 market, a well-established customer base in the United States and a heavy export orientation. Thank you for 2.4 25 your attention.

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1 MR. LUBERDA: Thank you, Gina. That 2 concludes the direct portion of our presentation this 3 morning, but before we move on to the questions I'd 4 just like to introduce a few more members of our panel 5 who are here today to answer questions for you.

6 We have David Onuscheck to my left, Senior 7 Vice President and General Counsel and Secretary of 8 ABB, Inc., who has many, many years of experience in 9 the power transformer industry. Also we have Richard 10 Mucha, who is a Marketing Manager with ABB, who also 11 has spent his career with large power transformers.

Also with us today we have Robert Radcliff from Delta Star, who is the Director of Sales and Marketing, and Tracie Crist, who is the Corporate Controller of Delta Star. So that's all of our witnesses, and we're happy to take your questions.

17 MR. McCLURE: First of all, on behalf of the 18 Commission let me thank those of you who have traveled 19 by plane when the FAA may not be totally funded. A 20 gutsy move. I've got to fly soon, and I hope they are 21 funded.

Anyway, we will begin our questioning withthe Investigator, Ed Petronzio.

24 MR. PETRONZIO: Good morning, everybody.
25 Thank you all for being here. Ed Petronzio from the

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Office of Investigations. Mr. Luberda, if I could
 start with you first?

MR. LUBERDA: Sure. 3 These are some data MR. PETRONZIO: 4 5 questions, and if anything is BPI then feel free to address it in the posthearing brief, but they should 6 be general enough that we can discuss them. 7 8 MR. LUBERDA: Okay. MR. PETRONZIO: So there has been some 9 communication between Petitioners and Commerce 10 11 regarding the universe of the U.S. producers producing LPTs, and based on what we have on the record now as 12 far as U.S. production over the period do you feel 13 pretty confident that what we have on the record is 14 15 all of U.S. production over the period? Are we missing anyone? Are there other producers that are 16 not accounted for? 17 18 MR. LUBERDA: We feel very confident that you've accounted for all of U.S. production. You've 19 seen the correspondence that we served on the 20 Commission as well, and the department has not 21 22 questioned it any further. We went to pretty good 23 length to make sure that we were, you know, confident in the numbers for the few companies that were raised 2.4 as potential producers, and we're sure about our 25

1 numbers, as sure as we can be.

MR. PETRONZIO: Okay. A similar issue with 2 our import data. So we have a product here as defined 3 that doesn't fit neatly into the HTS, so we're forced 4 5 to use guestionnaire data here. MR. LUBERDA: Right. 6 Same question regarding what 7 MR. PETRONZIO: 8 we have on the record as far as subject imports. Do we feel like we're accounting for the vast majority, 9 10 all of Korean subject imports? 11 MR. LUBERDA: I think we've got all the 12 Korean subject imports. Nonsubject imports, there may be some missing. And we've talked to staff a little 13 bit about, you know, particular questionnaire 14 responses that were a little bit deficient. And there 15 may be others, and when we compare them to the import 16 statistics, you know, we get to a final, I think there 17 18 may be more to get. We are trying to identifying anything else that, you know, we can provide to you 19 that would help you in identifying others. 20 But I 21 think you have a pretty good shot, snapshot, of the --22 I think you have most of them. We just don't think 23 you have all of them. MR. PETRONZIO: And we will have another 2.4 25 release of the documents and questionnaires on Friday.

We've had some additional ones. So after that, if you
 could address that in posthearing brief as far as what
 we have up to this point, I'd appreciate it.

MR. LUBERDA: Okay. We will do that. 4 MR. PETRONZIO: Okay. So as far as U.S. 5 production, there was some mention of some expansions 6 going on, particularly Monday, and I have some 7 questions about the U.S. industry. Has there been --8 to what extent has the U.S. firms invested as far as 9 expanding capacity? I know I've seen -- there has 10 11 been some public sources that have cited Delta Star expanding capacity, and also ABB. But it may be 12 nonsubject. This was at the South Boston plant, I 13 believe, or at something that there was expansion of 14 15 capacity.

16 So to what extent that involves the large 17 power transformers we're talking about, if you could 18 speak to that point.

MR. LUBERDA: Sure. I'll let Mr. Newmanspeak to his company's.

21 MR. NEWMAN: We have made some investments 22 in our company over the last three or four years. 23 None of those really change the footprint. The one 24 that we had anticipated having actually would increase 25 the footprint, increase the output, to date we have

not gone forward with those. And I'd like to provide
 you in some private testimony some of the reasons why.
 But it's unfortunate, but we have decided thus far not
 to go forward.

5 MR. LUBERDA: We'll put that in our post-6 conference brief. Do you want to address --

Sure. In terms of ABB, we did 7 MS. CUSACK: 8 make an investment. The investment decision for our 9 South Boston, Virginia facility was made prior to the 10 period of time that we're discussing here with the 11 case. And in fact, there was a significant investment 12 made to produce something that's a problem to a category in this case on developing new expansion in 13 South Boston, Virginia. 14

Unfortunately, due to what has happened in 15 the marketplace, we have not been able to appreciate 16 the employment levels that we originally sought and 17 18 have actually done reductions in our South Boston 19 facility due in part to some of the pricing behaviors that we have seen in the marketplace. So we have 20 21 actually invested the money in the vicinity, but we 22 have not yet been able to come up to capacity in our 23 head count that we had originally --

24 MR. PETRONZIO: So is the South Boston plant 25 -- you mentioned St. Louis being the primary facility

where the LPTs are produced. South Boston also 1 produces -- is it more geared towards a smaller size? 2 MS. CUSACK: The South Boston primarily has 3 There was investment in some a smaller size. 4 5 different engineering resources that the large power transforms are more complex than the smaller ones. So 6 it's actually set up almost as a separate business 7 8 entity with its own engineering, its own production supervision, its own production workers that are 9 trained differently for the complexities of the larger 10 So we call it line three in South Boston. 11 units. It's a separate building in and of itself in South 12 Boston, Virginia. 13 But St. Louis is our primary production 14 facility for these units. 15 16 MR. PETRONZIO: Mr. Stiegemeier, I have some questions for you as far as getting back to the 17 18 product. 19 MR. STIEGEMEIER: Okay. 20 MR. PETRONZIO: And that was very informative. But as far as the -- so I quess we could 21 22 talk about the rating system. 23 MR. STIEGEMEIER: Sure. MR. PETRONZIO: So we have bottom base 2.4

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What

ratings at the same -- and then top ratings.

25

1 does the industry usually use? Do they usually use
2 base rated? Do they use top rated? Sometimes there
3 is a range?

4 MR. STIEGEMEIER: It is actually going to 5 vary by company. We use top rated.

6 MR. PETRONZIO: But this varies by firm, or 7 is there an industry standard?

8 MR. STIEGEMEIER: Actually, there is an industry standard that tells you how to rate your 9 10 transformer depending on what kind of cooling system 11 you have. A transformer with no pumps and fans on it will basically have one rating. But as you add pumps 12 and fans, because the utilities don't like to pay you 13 for the energy costs of fans blowing when they don't 14 need to be blowing, they'll come on in stages as the 15 load on the transformer increases, much like the fans 16 in our car today have electric motors on them, and we 17 18 quit using a pulley system on fans a long time ago, where we're saving money when that fan doesn't need to 19 be running, as you're blowing down the highway at 70 20 miles an hour. But when you come to a stop at a 21 22 stoplight, and that electric fan turns on, you're 23 saving money.

The same thing has happened with the transformer, thus you get different ratings. But

those ratings are all determined by industry
 standards.

3	MR. LUBERDA: Mr. Petronzio?
4	MR. PETRONZIO: Yes.
5	MR. LUBERDA: I just wanted to what you
6	see in a lot of lost sales we have given, or in a lot
7	of the bids you have seen from everybody who submitted
8	them, they're often those three ratings appear in
9	the description of the product. So when the customer
10	is buying it, they know that this is the base, this is
11	the middle, this is the top. So if you look at the
12	things we submitted, you'll see that.
13	MR. STIEGEMEIER: And where you see that
14	change is by the application, by utility that has a
15	network transformer that sits in a field and maybe is
16	lightly loaded in the spring and the fall. They
17	almost never have fans and pumps running. But if
18	you're going into a generation plant, whether fossil,
19	nuclear, or whatever, because those transformers can
20	tend to be a little more digital, they're either on
21	and fully loaded or off, they may even have just one
22	single rating on those transformers.
23	MR. PETRONZIO: Okay. And you also

24 mentioned the shell versus core technology. And you 25 said that the shell form takes more steel, basically,

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1 so it's going to --

2	MR. STIEGEMEIER: Yeah. As you can see in
3	the picture, it's encapsulated in a steel box, and
4	that box is anywhere from maybe 11 or 13 inches thick,
5	each one of those steel laminations, to maybe as wide
6	as 17 or 19 inches thick. So it's a very thick steel
7	case around the windings.
8	MR. PETRONZIO: Okay. And what are the
9	advantages of the first one versus the other?
10	MR. STIEGEMEIER: You can get different
11	engineers to have different arguments with you. And
12	the reality is I was trained in shell-form design, and
13	so if you have a very low impedance transformer, which
14	means that if there is a short circuit on the system,
15	a huge amount of power or a huge amount of current
16	flows through that transformer. That fact that the
17	windings are encapsulated in that steel shell makes it
18	more short-circuit resilient. But almost always those
19	transformers are going to cost a little bit more. So
20	where their sweet spot is, is for transformers that
21	are needing to be short-circuit resilient and wind up
22	having the need to have that short-circuit resiliency.
23	So shell-form is kind of a unique
24	application. You'll see a lot in the industrial
25	transformers in steel mills, we have you got electric

arc furnaces and the electrodes having constant short 1 circuits. They give good performance to steel mills. 2 3 Then you see them in very, very large transformers that are getting a little impedance. 4 5 MR. PETRONZIO: Okay. Now, do --MR. McCLURE: If I can jump in here, is 6 there a case where the more MVAs you're producing in 7 8 the transformer, you're going to have shell as opposed to core, or does that make any difference? 9 10 MR. STIEGEMEIER: The higher and bigger the 11 transformer, the more shell form is going to be 12 applied. MR. McCLURE: So about 300 --13 MR. STIEGEMEIER: But it doesn't become 14 15 exclusive by any stretch. 16 MR. McCLURE: It's not exclusive? Okav. MR. STIEGEMEIER: It's not an exclusive 17 18 club. 19 MR. McCLURE: No, okay. Shell form lends itself, 20 MR. STIEGEMEIER: 21 because those windings are encapsulated in steel, like 22 if you're building a 765 KB transformer for the 765 23 grid in the U.S., those transformers' single phase is very tall and thin, and they can actually be laid done 2.4 for shipment. And that's one of the advantages for 25

shell form, is that when you take something that is literally 30 or 40 feet tall, and you're able to lay it down on a rail car, you have a lot better chance of fitting under a bridge than if it's sitting 30 or 40 feet tall. So that's one of the big advantages of shell form.

So you'll see them become a little more
dominant on the single phase really high voltage
stuff.

10 MR. McCLURE: Okay. Thank you.

11 MR. PETRONZIO: Did the technology evolve at 12 the same time, or did it start off at the core, and 13 then the shell technology came around as the --

MR. STIEGEMEIER: You know, Stanley and 14 15 Tesla and those quys back in the 1880s, they all started wrapping either coils around already made 16 cores, or they wrapped cores around coils. And then 17 18 that's kind of -- and again, you can really drink a lot of beer and have a good discussion over which one 19 20 is better. But the reality is both technologies have 21 developed and matured. The shell form really 22 worldwide got a big boost with Westinghouse, and they 23 licensed the technology that Westinghouse had developed in their Sharon, Pennsylvania plant, long 2.4 closed since '84. But most of the global producers 25

that are making shell form are somewhat of a child of
 that original license.

MR. MUCHA: Mr. McClure, if I might add --3 MR. McCLURE: Yeah. 4 5 MR. MUCHA: Richard Mucha. T'm the marketing manager of North American Power 6 7 Transformers. My career is in design, and unlike 8 Craig, I was a core-form designer. And I believe we can do anything in core that we can do in shell, with 9 the exception of about 12,000 to 1,200 MVA, really on 10 11 the far end of the spectrum. It became difficult to 12 transport, so there were some advantages to the transport. The very low impedance generator step-up 13 units were easier to transport. But very, very large 14 15 units, we can do anything in core form as well. 16 MR. McCLURE: Okay. Thank you for that. MR. MUCHA: You're welcome. 17 18 MR. PETRONZIO: Mr. Kerwin, you talked a bit 19 about market demand, and the sense I got was that in the short term -- so short term outlook is not good 20 21 for the market, but long-term things are looking up a 22 bit, given that the aging of the existing grid had --23 MR. KERWIN: Well, we had an interesting discussion yesterday because, you know, a perspective 2.4 25 of people who have been around the industry for a long

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time is that they have been hearing the same story for their entire careers, that, yes, the infrastructure in the United States is aging; yes, at some point some of these units that have been put off being replaced will need to be replaced. But they have been hearing that for their whole career.

So, you know, I don't think there is any 7 8 immediate indication that there is any, you know, dramatic need that there is going to be some point on 9 10 the horizon that within ten years, half the 11 transformers, larger power transformers, have to be It's not that case at all. It's not the 12 replaced. case that, you know, an enormous percentage was put in 13 as of 1950 or 1960. That's really not the case. 14 15 There is not any specific date.

There is general perception, yeah, that our infrastructure is aging. But some of these units can go on for 50, 60, 100 years. Some are not typically designed to go 100 years, but in some instances, they're still being used for that length of time.

So, you know, I think that there is a general perception, but there is nothing -- certainly nothing immediately on the horizon that indicates that that will result in any significant increase in consumption for the product. And certainly in the

near-term, it sounds like the picture remains fairly
 bleak.

MS. CUSACK: If I might add to that, we have done a number of studies for the installed base. The installed base in the U.S. is again, and most of the installed bases are 40 years old. But it really depends on the loading and how hard that transformer has been worked during its life and what kind of environment it has been exposed to.

So we have got engineering studies with very 10 11 old installed base units that after doing complex 12 analysis on these units show now apparent need for replacement. And then there is other units that are 13 relatively young, 15, 20 years, and those units have 14 been worked harder, and they do require replacement. 15 So although many in the industry say, you know, there 16 is a large aged installed base and, you know, at some 17 18 point they are going to be needing replacement, right now, given the market conditions and the general lack 19 of demand for at least energy, we're not seeing that 20 21 cliff coming anytime in the near future that those 22 units are going to need to be replaced.

23 MR. KERWIN: Yeah. And I would just add 24 that the data that I cited to in my testimony is 25 pretty striking in that what we're seeing -- and this

is somewhat again historical trends. I think historically the United States has seen, you know, fairly consistent increases in both power generation and consumption. But the projections that are there now show a much different picture, that it's not projected that either generation or consumption are inclined to increase much at all.

8 The number I quoted from testimony was a 1 percent growth in consumption between 2010 and 2015, 9 which is rather extraordinary. There is a heavy 10 emphasis now on conservation, and we're actually 11 making some progress in that regard, you know, as an 12 economy. And obviously there are not a lot of houses 13 being built currently, or major new housing 14 developments, which is not -- at that level, that is 15 more specifically distribution transformers, but the 16 point being that the economy is not expanding. 17 There 18 is not a lot of demand growth for -- growth in demand for electricity consumption, and it's not projected to 19 increase significantly more for guite a number of 20 21 years.

22 MR. LUBERDA: Mr. Petronzio, this is Al 23 Luberda. I was interested to here the Respondents say 24 they have a study that is going to show that the 25 market is going to increase 5 percent a year, or

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whatever it was. But we're being injured now, over the last three years and this year. We're really concerned about what happens the rest of this year and going forward. If you look at the data, the imports from Korea are huge. The underselling data is there. And it has really hurt the industry.

7 So while, you know, what is going to happen 8 five years from now, three years from now, two years 9 from now, might be interesting for threat, we think 10 we're suffering significant injury now. I'm not sure 11 what the basis of their claims are. We'll look at 12 that report when it comes. But we need help now.

MR. PETRONZIO: Okay. If we could maybe 13 just talk briefly about the bid process. There was 14 some mention of open bids, and I'm assuming this is 15 from when public utility companies were able to take 16 bids from firms. Could you just describe that process 17 18 a bit? I know there are, you know, city councils -if you -- five minutes as far as what the bids are and 19 what the numbers come in at. If you could somewhat 20 21 describe that process from the beginning as to -- a bit. 22

23 MR. NEWMAN: I'd be glad to explain how it 24 works. We receive -- you have to be prequalified for 25 the plant. That's an obvious step. There are certain

manufacturers out there that just are not in the 1 premiere category, obviously. But after you are 2 qualified by that plant, then they will send out an 3 RFQ and an RFP, and then everyone who is qualified is 4 5 able to quote on that, and then the numbers are tabulated, much like a municipal may tabulate them or 6 otherwise you meet the spec. Once you meet the spec, 7 8 then the prices come out.

9 You generally know whether you've won or
10 lost within probably two months of having bid the bid.
11 The validity of the bid is often 30 days or 60 days.

MR. PETRONZIO: And there was some mention of U.S. companies being closed out of the bidding process. Does that have to do with the qualification process or -- I mean, were there certain situations you mentioned that U.S. companies were not allowed to bid on projects?

MS. CUSACK: No. That more pertains to what we'll consider to be alliance arrangements. So if you bid on a long-term -- something called long-term agreements, where you locked up the volume that didn't account for yours, there will be perhaps one initial offering. But it will contain a demand for three to five years subsequent to that.

25 So if you are qualified with a number of

other suppliers, and somebody comes in very, very low, they will lock the other suppliers out of that business for that period of time of the alliance agreement several years. And that's alliance agreements with investor utilities, not the public power that -- was describing.

7 MR. McCLURE: If I could jump in again, it 8 is the long-term bidding and getting closed down, as 9 it were, if that's the appropriate term. Is that a 10 relatively new phenomenon? Is that something you 11 hadn't seen before?

MS. CUSACK: No. 12 There has always been some percentage of alliance agreements. And in fact, in my 13 company in particular, we have had alliance agreements 14 for years. The problem that I would see directly has 15 been a direct effect of what we have seen in the 16 pricing levels is that even when some of those 17 18 alliance agreements that have been in place with the 19 U.S. industry, because the market pricing came in so 20 much lower, many of those alliance agreements that had been in place for years had been looking up, and now 21 22 with this more aggressive pricing, now new contracts 23 have been put in place at much, much lower pricing levels. 2.4

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So it's not a unique phenomenon to have

alliance agreements. What is absolutely unique in the 1 history is that those alliance agreements have been 2 opened up after they have been signed. 3 MR. McCLURE: Okay. And then when they're 4 5 opened up, and somebody comes in and takes it apart, is that a new alliance agreement, or is it a --6 MS. CUSACK: Yes. 7 8 MR. McCLURE: -- you know, just a short-term solution? 9 MS. CUSACK: No. 10 It's a new alliance 11 agreement. 12 MR. McCLURE: Alliance agreement, okay, okay. Thank you. Back to Ed. 13 MR. PETRONZIO: Are there any situations 14 15 where U.S. companies are given preference over importer products, Buy America or something where a 16 public utility company will say we prefer it? 17 18 MS. CUSACK: Yeah. There are some Buy 19 America clauses. And oddly enough, the Buy America clause is largely including the imports from Korea and 20 21 other countries with free trade agreements with the United States. So in fact, there is no advantage to 22 23 U.S. manufacturing on those Buy America clauses that It was a mind opening discovery for me as 2.4 I've seen. well because I thought that Buy America meant that you 25

1 produced in the United States.

2	MR. PETRONZIO: Okay. And then just other
3	elements of the bid. Are there I mean as far as
4	installation, as far as warranties. Are these all
5	components that can be strictly based on price? What
6	other factors go into whether bids can be accepted or
7	not?
8	MS. CUSACK: There are many factors that go
9	into the bids. But if you take something like a
10	warranty, really when you talk about units of this
11	complexity and size, if you're going to have a
12	failure, you're going to have a failure in a very
13	short period of time. And so if somebody says, oh,
14	well, I offered you a three-year warranty versus a
15	two-year warranty, the customers in our industry I
16	mean, that is basically valueless for them because
17	they're going to have a failure soon after they
18	energize if they're going to have a failure.
19	So things like warranty, hauling and
20	installation, that kind of thing is included in the
21	bids. But typically, what will happens is there will
22	be a price for the unit at location, and then there
23	will be another price for the unit installed and

25 out because the assumption is that everyone can get it

24

energized. So that becomes then, you know, leveled

to the pad and energized. And certainly there are losses and other things that come into evaluation. But each customer has a formula that they use to evaluate what the financial impact is on losses versus initial cost, and everyone has access to that information in the specification that comes out that we get on.

8 MR. RADCLIFF: Mr. Petronzio, if I could --I'm Robert Radcliff from Delta Star. Generally, most 9 10 of the specifications we see from the customers 11 outline in detail exactly what they are looking for with respect to warranty, with respect to delivery, 12 and as far as the firm or escalated pricing. So that 13 kind of puts everyone on a level playing field with 14 15 respect to what they're bidding.

16 So anyone that does not meet their specification, they generally outline what they are 17 18 taking exception to. So that way a customer can actually read and see that, oh, they're bidding 19 exactly what we asked for. There are no exceptions. 20 21 So we should expect to get exactly what we ask for. 22 And that way, all of the pricing levels -- and 23 generally, at that time, they buy directly on price. MR. PETRONZIO: Thank you. That concludes 2.4 25 my questions. Thank you all.

MR. McCLURE: We will now turn to our
 auditor, Charles Yost.

MR. YOST: Thank you very much. And I do appreciate you all coming to this conference today. I have no questions, at least none that I can ask publicly. I, of course, look at company-specific data, so I'm a little precluded about asking for that in public session. But thank you very much.

9 MR. McCLURE: I think Mr. Yost has no doubt 10 been in touch with some of you at the individual firms 11 and may have follow-up after we conclude the 12 conference. He can talk to either you or through 13 counsel. At that, we will now turn to our learned 14 counsel, Peter Sultan.

15 MR. SULTAN: Thank you. My first series of 16 questions goes to the definition of domestic like 17 product and the factors that we generally look at. 18 And my questions are mostly prompted by what I've read 19 in the petition.

Turning first to the physical characteristics of large power transformers, I should mention that my questions really focus on the distinction or lack thereof between large power transforms and power transformers of less than 6 MVA. You described the typical characteristics of large

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power transforms as consisting of copper windings and
 core made of laminates that goes within a bath of
 degassified mineral oil.

Are smaller transformers similar? I mean,
do they have similar physical characteristics or are
they different?

MR. LUBERDA: I'll let the experts talk 7 8 about it a little bit. But I'll just in preface, first, I was interested that -- I haven't heard from 9 the Respondents -- that they're challenging that 60 --10 11 Maybe we'll hear that this afternoon. I don't vet. know. But all transformers, all liquid-type 12 transformers, are going to have a core, a winding, and 13 be filled with liquid gassified oil. 14

15 That doesn't mean that they all have the same physical characteristics. And I think the panel 16 here can tell you that once you start getting up in 17 18 these higher voltages and the higher MVAs, they get much more complex. It's all the other things that 19 20 have to go into the transformer to make it more 21 suitable for those higher voltages to help dissipate 22 the heat, to control the oil, to -- and a variety of 23 other things, cap changers. There is just a lot more complexity in the larger scale. 2.4

So I'll throw it out to the panel, maybe Mr.

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1 Stiegemeier then maybe somebody from Delta Star.

MR. STIEGEMEIER: I think you described it 2 I mean, if they're a liquid filler, I pretty well. 3 mean, you know, the laptop power supply here is a 4 transformer. So the transformer is not a transformer 5 is not a transformer. Certainly the pad mount that is 6 in your backyard is a liquid-filled transformer. But 7 8 it has probably got aluminum windings inside of it. These things, because of the massive amount of power 9 that you're trying to pack in as small a box as 10 11 possible, they're almost always going to have copper windings just because copper is that much better of a 12 conductor. 13

When you're in a factory that's building 14 hundreds of pad-mount transformers a day that you ship 15 20 or 30 on a truck, the complexity -- and it may be 16 that it's purchased to a single page datasheet with 17 18 basic performance data on it versus these things, which can have a 30, 40, 50, or 100 page sheet 19 detailing many details because again these things are 20 21 so specific and so custom to the grip point at which they're installed because, I mean, the voltage ratios 22 23 for these transformers, the impedance of these transformers all has to do with whether it's 2.4 transferring power from one point of the grid to 25

another normally, when they're loaded, the voltages sites on these transforms. And so the impedance of the transformer is going to be important to the customer.

And again, these high-volume production on these kind of things, at least in our factory, is maybe two a week instead of hundreds a day. So there is just an order of magnitude difference, and that 60 MVA line is a pretty good divider.

10 MR. SULTAN: You say about the 60 MVA line 11 is a pretty good dividing point. But is it a dividing 12 point in terms of other physical characteristics in 13 terms of extra bells and whistles on the transformers 14 as opposed to the smaller --

MR. STIEGEMEIER: Yeah. You'll see 15 monitoring systems applied to those higher power 16 transformers. Again, as they're more critical --17 18 nothing personal for you, but the utility doesn't monitor the pad-mount out in your backyard with the 19 same level of intensity that they monitor the 20 generator step-up in a nuclear power plant. So, yeah, 21 there are different accessories. There is different 22 23 things that go in those more critical transformers. MR. LUBERDA: There is a lot of -- I just 2.4

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wanted to add, Mr. Sultan, you know, there is a lot of

engineering, as we testified today, that goes into 1 making one of these large power transformers, much 2 3 more so than the small ones. And because of their critical applications, they have to be well-tested. 4 They have to be hand built. You know, the choice of 5 -- you take the specification the customer has given 6 you in the bid, and you have to do a lot of design 7 8 work to decide exactly how much steel is going to be in the core, what is the shape going to be, what 9 10 winding patterns are you going to use, how are you 11 going to set it up.

It has got to go under a bridge or over an 12 overpass somewhere. How much is it going to weigh? 13 Where you get all those performance characteristics 14 for the weight, for the size, for the materials going 15 So all of that is really critical, and the 16 in. process takes a couple of months sometimes, weeks to 17 18 months, to get that design down. And that goes into the physical characteristics, in addition to the bells 19 and whistles that you have to add to monitor heat, to 20 check heat flow, to make sure you are getting cooling. 21 22 All of that engineering is at a level that is far 23 above what you're doing on these smaller units. You know, if you're looking for a line that 2.4

24 You know, if you're looking for a line that 25 some -- there is no publication that says 60 and up is

large, and below that is small. We had to get, you 1 know, give this case a moniker. We had to call it 2 3 something. These are the large ones, and everything else, you know, we would consider to be small, 4 5 basically other, no matter what any individual company might call it. Different companies might have a 6 different moniker for a particular size range based 7 8 on, well, we produce one at one plant and one at another. 9

So there is no -- you know, you're not going 10 11 to find a standard that says call a 60 a large and 100 a large, and call 40 or 20 small. But we believe that 12 there is consensus that from 16 up, you're starting to 13 work in the complexity, the size range, performance 14 characteristics, and the physical characteristics that 15 allow those performance characteristics that are 16 generally considered large. And when you get below 17 18 that, you're generally in the small range where they're much less complex and they're in much less 19 critical applications. 20

21 MR. SULTAN: Thank you. What about the 22 challenges of distribution? You mentioned in the 23 petition that most LPTs share a common channel of 24 distribution and are sold to the power grid. How does 25 that compare to what you call other or smaller

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1 transformers?

2	MR. MUCHA: Distribution? Distribution, as
3	Craig mentioned, the green box in your backyard, the
4	pole hanging on the light post or power line, whatever
5	they call them today. So distribution is a much
6	different animal. It can have aluminum windings,
7	predominant aluminum windings. Aluminum is a higher
8	loss material. So when you get smaller or the losses
9	aren't so big, a lot of these distribution transfers
10	don't even have cooling equipment on there. There is
11	a green box. There is no fins, but they can dissipate
12	all their heat.
13	So what we do is if we differentiate in
14	distribution and it's essentially 10 MVA and less
15	is a distribution class transaction.
16	MR. SULTAN: Okay. When I refer to channels
17	of distribution, I was really talking about what kind
18	of customers you're selling to. And I'm looking to
19	see if there is a distinction between the class of
20	customers that are buying LPTs and the class of
21	customers that are buying smaller
22	MR. MUCHA: In my opinion, the answer to
23	that is now. Industrial customers buy LPTs, and the
24	smaller transformer, public powers, utilities, they
25	buy generally a full range of products.

MR. SULTAN: Well, industrial customers is a
 very large category.

3 MR. MUCHA: We classify wind as industrial So it depends on how -- what within our organization. 4 5 channels you're going through. And again, as Craig said, small, medium, large. We have a channel we may 6 call industrial, but somebody else doesn't call it 7 8 industrial. They call it some other -- renewables. MR. STIEGEMEIER: Yeah. That would really 9 10 vary by company, I quess. 11 MR. MUCHA: Yeah. So again, it is company-12 specific. MR. LUBERDA: You know, one of the things 13 let's say, utilities are buying the vast majority of 14 these things. You have industry and utilities. There 15 are some people in power generation, the transmission 16 and distribution to -- transformers. But it's my 17 18 understanding from our discussion yesterday -- one of our witnesses had commented on this -- that generally 19 a utility, you know, Dominion or one of our local 20 utilities here, is buying a large transformer. It's a 21 22 different set of purchasing agents, a different set of

engineers who are involved in that who are talking to
our company, and they're talking to different
engineers and different people bidding it. And that

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1 has been the small ones.

2	Even within organization that might vote,
3	there is a split between large and small in terms of
4	who is buying what. Am I right in that?
5	MS. CUSACK: There is certainly a there
6	are more industrial customers on the small side than
7	on the large side. You know, you might have the same
8	customers, but it's typical that an industrial
9	customer will buy more of the small power transformers
10	than the large. I think also a distinction that we
11	use within our business is on the small side, and in
12	our South Boston facility, we make small power
13	transformers that are distribution size.
14	Even with that business, the power
15	transformers, there is a fairly significant percentage
16	of those products that come through that aren't
17	engineered, that have a standard solution. And the
18	ones that are below 60 MVA are a whole different class
19	in terms of what it takes to engineer those products
20	to be suitable for production and for the customers.
21	That's why I mentioned that in South Boston
22	we have a complete and different line with a different
23	level of technical expertise, where they use different
24	tools to optimize the design than they do on the small
25	side. It's much, much more difficult to come up with

a design that meets the requirements for the large
 power transformers than with the small ones.

3 So if Craig talked about, you know, the 4 difference in the spec and the complexity of the spec, 5 that complexity comes right up through all aspects of 6 the product, from the engineering upfront through the 7 complexity of the production area.

MR. SULTAN: Thank you.

8

If I could follow up on Ms. 9 MR. KERWIN: Cusack's comment, another thing I think that 10 11 distinguishes the two products in terms of how they're sold and distributed is that the large power 12 transformers are being made to order, and that's a 13 unique application, where they're being built for a 14 site, which means, of course, that you can't inventory 15 that product. It is being -- the producer is making 16 it for the purchaser. The purchaser is putting out in 17 18 a specific location. They don't have a spare sitting They don't maintain any inventory. 19 around. The producers don't maintain any inventory, whereas with 20 the smaller transformers, in many instances the 21 22 utility companies do maintain inventories of those 23 products, and they can just swap one out as one fails, and they have their own inventories, and even 2.4 manufacturers can maintain inventories. 25

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1 It's a totally different thing with the 2 large power transformers, however. Each one is being 3 made for a specific application. And when it fails, 4 it could take upwards of a year or two to build a new 5 unit to replace it.

Thank you. 6 MR. SULTAN: That's very helpful. Turning to a different subject, and that is 7 8 the role of nonsubject imports in the U.S. market to -- that is, imports from countries other than Korea. 9 10 This morning, we heard about the domestic industry. 11 We heard that Hyundai and Hyosung are competing fiercely. But there was no mention of other 12 suppliers. And just to sort of complete the picture, 13 I'd like to hear a little bit about who the other 14 15 major players are in the market, and their pricing terms. 16

MS. CANNON: Let me start. Kathy Cannon. We've heard mostly about Korea because if you look at the statistics, Mr. Sultan, you see that Korea alone is huge compared to everybody else combined. They are the dominant force in this market, and that is why we have focused on them.

Historically, Mexico was a significant
country. They have not been increasing in market
share over this period of time. In fact, what we're

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seeing is a decline in those imports. Other countries 1 are playing in the market. You do see imports from 2 other countries as well. But what none of the 3 companies are seeing or telling us about are the 4 5 pricing practices from any of those countries that they are seeing from Korea, which appears to account 6 for this aggressive market share growth and the lost 7 8 sales that we have been able to identify.

9 No single other country -- and we discussed 10 this at length yesterday -- was identified by any of 11 these producers as somebody that they are seeing in 12 the market in a significant way that is aggressively 13 pricing their product or growing a market show 14 significantly.

15 So, yes, you do see other players in the market. Yes, you are going to see some other 16 nonsubject imports. I think your database right now 17 18 on that is incomplete. So I think your trends that 19 you're seeing, at least from the data that has been released to us, seem to be incomplete on the 20 nonsubject import side. But in terms of the market 21 22 share growth, nothing comes close to the size of Korea 23 or the growth over the period of investigation from any of the other countries. 2.4

25 MR. SULTAN: Thank you. That's all I have.

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1 MS. CANNON: Mr. Sultan, sorry. Could I add one other thing? I know when you were asking the 2 questions about like product, you were referring to 3 the petition. I just wanted to mention that on August 4 5 1st, we filed with the Commerce Department at their request a response to a question similar to the one 6 you raised differentiating the smaller and larger 7 8 transformers. And we served on the Commission. So 9 hopefully, you've received that copy. Good. But that 10 has a little bit further explanation on that specific 11 topic.

MR. McCLURE: Next in the questioning wouldbe our economist, Clark Workman.

I had -- I quess it has been 14 MR. WORKMAN: gone over a number of times. But I have one more 15 question or two about the bidding process. 16 When you -- I guess as I understand, the purchaser requests 17 18 bids from each of your companies. When you bid, do you know who else is bidding in the process? Or is it 19 something that is just completely -- all you know is 20 what you're bidding, and you don't know who your 21 22 competitors are. Is this the case?

MR. NEWMAN: It is often the case, but
sometimes you do know. And it comes through
manufacturing reps. I think we all have manufacturing

1 reps who they have a single-state or multi-state.

Those reps may tend to know because of relationships
or who is able to bid on those products and who is
not. But oftentimes you do not know.

5 MR. WORKMAN: You don't know, and you don't 6 know what the final -- much of the time you don't even 7 know what the final bid was, I suppose.

8 MR. NEWMAN: Many times.

9 MR. WORKMAN: Okay. Then I also had a 10 question about these blanket agreements you talked 11 about earlier, Mr. Blake. What is the advantage of a 12 purchaser getting involved in a blanket agreement like 13 that? Why would they want to lock themselves into 14 just dealing with one supplier when they could 15 continue to search the market each time?

16 MR. BLAKE: Typically, the way the alliance works is the procurement of a utility to send out the 17 18 bid documentation to review it, for everybody to get their approvals, is a long process, and it costs the 19 utility a lot of money. And if they're buying 20 20 transformers over two years, it's up to agreement, so 21 22 they can say, hey, I just need item one, get us 23 another purchase order, and it decreases their purchasing process throughout the whole process, or 2.4 25 throughout the transaction.

The benefit for the utility is once they 1 bought one transformer, one design, the second time 2 around, the drawings are already completed. 3 The producer can probably ship it a lot quicker because he 4 has the engineering done, and he can put it in his 5 factory. So those are the benefits for the utility 6 and the benefits for the producer because you're going 7 8 to get some base load.

Now, what the utility struggles with is how 9 10 do I know I'm getting the market value of this 11 alliance. You know, when I was first starting out back in my career earlier on, I went to this company, 12 and the quys said we make the best money off your 13 friends, you know, the customers. You nickel, dime 14 them and they don't know it. But these purchasers 15 have to prove to their management that I'm getting the 16 market level. So they opened up the bidding. 17

What happens when you open up the bidding and you let the other suppliers come in, and that's when we saw these drastic prices go way down, and losing these contracts.

22 MR. LUBERDA: Mr. Workman, I'd just add you 23 know, when you go into -- when somebody opens one of 24 these agreements up it's because they've seen over 25 time that the market has gone to a particular level

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So if you're a utility, and you see that 1 downward. consistently the Koreans are underbidding the U.S. 2 market, U.S. producers, by 30 percent, then you open 3 it up, and the bid you get is 30, 40 percent below, 4 5 you know, over time in looking at that you can be pretty sure that, well, you know, I'm going to be 6 getting a price that is below the domestic market for 7 locking that up for a long time. 8

9 So this is based both on their prior 10 experience in the market of these low sales prices, as 11 well as, you know, their predictions for the future.

MS. CUSACK: If I could just add two things 12 to your previous question, you know, oftentimes we 13 will know maybe not who is going to actually submit a 14 bid on a project, but we'll know who is qualified and 15 who are likely bidders, particularly for the 16 industrial-owned utilities. Typically our front end 17 18 sales will let us know who is qualified to be able to bid on that project. So we typically do have that 19 knowledge for industrial utilities. 20

The other thing I wanted to add is even on alliances, you can have different design units. So just because you have an alliance doesn't necessarily mean you won't have a design you use and test witnessing. There is many times that you have

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1 different economic alliance contracts.

2 So what Dennis was saying would pertain to 3 units that are duplicates perhaps or units that are 4 very, very similar, but typically we see on alliance 5 contracts that good designs are often different. And 6 so we will still have significant engineering that has 7 to go in.

8 MR. WORKMAN: Okay. Thank you. I had a couple of other different kinds of questions. 9 One thing I wanted to ask is what factor drives demand for 10 11 power transformers? Is it the economy? Is it 12 electric power use? Is there something that you consider a variable that you're constantly monitoring 13 to see at what point you'll be --14

MS. CUSACK: Well, certainly, you know, the 15 energy consumption is a big driver of what the demand 16 is going to be. So we then probe what the predictions 17 18 are for energy consumption in the U.S., and those 19 increases or decreases could be a pretty good indicator of what the market is going to be demanding. 20 21 And then we'll look on top of that for if there is --22 you know, there is a handful of very large projects 23 that are usually on the table for many, many years. And that might be incremental that we add up. 2.4

25

So we actually go through a fairly detailed

process to figure out -- we'll usually forecast out about five years with a lot of certainty in the postone to two years, and then as we get out, we find less certainty as some of these large projects will move based on the economy.

In fact, we several of these projects, very large projects, move in the last year based on the economy that, you know, years ago, when they were put on the table, the thought was that energy demand would be much higher than it is today. So we do see a pushing to the right-hand side for many of these large projects.

13 MR. WORKMAN: Okay. Thank you.

MR. MUCHA: I'd like to also add, if I could, please, we track housing starts. You know, we look at what is happening in housing. We look at what is happening in industrial construction growth. So you look at that very low level, which affects the smaller product first. But you're looking for trends, and housing has been down for quite some --

21 MR. WORKMAN: Oh, yeah.

22 MR. MUCHA: So I think we all know that. So 23 we're looking at it to that level as well. So there 24 is lot of factors like these that if you try to look 25 at the whole, you can get a good idea of the big

1 picture of what is happening.

2 MR. WORKMAN: Overall. So it's a number of 3 different variables.

4 MR. STIEGEMEIER: Well, a lot of these big 5 transformers, the demand for those is pushed simply 6 because an old one wore out. And our old one isn't 7 near wearing out.

8 MR. WORKMAN: That's another question I was 9 having here. Just about how important in terms of 10 sales do you think the replacement market has as a 11 percentage of your total sales?

12 MR. STIEGEMEIER: Rick, can you answer that? 13 MR. WORKMAN: I know you indicated that it 14 didn't look very promising for the future. But I was 15 just wondering what typically a -- significant product 16 of sales each year.

17 MR. LUBERDA: That's something I think we'll 18 try and get back to you in a post-conference brief. 19 It's a little, I think, off the top of their heads, a 20 little hard for them to say.

21 MR. WORKMAN: Right. I understand.

22 MR. LUBERDA: It is a part of the business. 23 I mean, there is new energy business, which we've 24 testified we're losing to the Koreans. There is the 25 replacement business, and then there would be new

projects. The new projects have been fewer than would have been hoped for. And with the economy being stagnant, you know, we're concerned about what will happen in the future. But we'll try and get you some picture of that for our post-conference brief.

6 MR. WORKMAN: All right. I'd appreciate 7 that, if you're able to come up with something. I had 8 one other question. In terms of raw materials used to 9 produce large power transformers, is this an important 10 variable, some particular material input, or is it --11 I understand it's a very complex thing, and that 12 really maybe that isn't the key variable.

MR. STIEGEMEIER: Material content is huge in driving the price of a transformer. I mean, the price of cooper. Electrical steel is a pretty unique animal. I mean, just not any steel mill can produce this grain-oriented steel that we talked about.

18 MR. WORKMAN: Yeah. It's a special steel19 product.

20 MR. STIEGEMEIER: Very specialized steel 21 product. You're trying to get a magnetic flux flowing 22 in one direction in that steel but not in another. 23 So, you know, the steel manufacturer has been able to 24 work with us and figure out how to do that.

25 MR. WORKMAN: Okay.

MR. STIEGEMEIER: And the reality is, you 1 know, it's kind of like this piece of paper. You 2 3 know, if the Smithsonian has an important book, they keep in a dark room with very careful humidity 4 5 controls and all that kind of stuff. And you can get a book to last for hundreds of years. But, you know, 6 you throw this piece paper in the front window of your 7 8 car and you park for a day, and the edges of it start breaking and it starts turning brown and brittle. 9 And, you know, as Dee described, I think, very well, 10 the way the transformer is used, it is either kept in 11 the Smithsonian and it lasts forever, or it is really 12 pushed hard, and maybe it only lasts for 20 years. 13

So again, you know, we're not trying to 14 confuse anybody. But that's really where transformer 15 design life is theoretically targeted somewhere around 16 30 years. But some of them wear out in 20, and some 17 18 qo 200. And this cliff that Mr. Kerwin talked about that we have all seen in our careers since I've been 19 designing -- I mean, our parents wanted color TVs and 20 air conditioning. And so there was this big demand 21 22 for power and generation added in the sixties and 23 seventies, and, of course, the need for replacement transformers that existed in the eighties and nineties 2.4 when one of them went bunk and you needed to replace 25

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1 -- throw a spare tire into it.

2	But the reality is we know that the
3	infrastructure is aging. As Ms. Cusack mentioned,
4	it's more than 40 years old, the average power
5	transformer right now. We know they're not going to
6	last forever, and it has always been talked, at least
7	in my career, about when that cliff is coming. We
8	just don't see us marching to the edge of that cliff
9	yet.
10	MS. CUSACK: If I might add, though,
11	material is a significant driver in power
12	transformers. And it just actually brings a different
13	market phenomenon, what has also occurred recently.
14	And it used to be very commonplace up until a few
15	years ago that contracts would have material
16	escalation clauses in them. And so because material
17	is such a significant portion of the cost of the
18	units, if the price of these raw materials would go
19	up, the customer would see an increase in price
20	between when they ordered it and when it was delivered
21	based on the material fluctuation. And conversely, if
22	the cost of those materials went down, they would see
23	money back based on how they ordered the product.
24	One of the recent happenings has been that
25	some of the competitors, particularly the Koreans,

have gone in with locked-in pricing that does not 1 escalate. And that is a phenomenon that now since 2 being produced, it is being really very forcefully put 3 into the marketplace, which then puts all of the 4 5 material at risk, manufacturers like ABB and our colleagues here from Delta Star and Pennsylvania 6 Transformer and the other U.S. manufacturers competing 7 8 in this marketplace.

9 So there are certain materials that we can 10 hedge at the time or order, and then for other that we 11 can't. And for long periods of time in some of these 12 longer releases that you have for multi-year 13 agreements, this is a significant price burden and 14 cost burden that now we're having to bear based on 15 these practices and pricing in the marketplace.

16 MR. WORKMAN: So you no longer have these17 material agreements then.

MS. CUSACK: They're much less, less common.
It's very unusual to have the ability now to get price
escalation.

21 MR. MUCHA: If I could add, the materials 22 used in power transformers are the same around the 23 world. And there is really no differentiating factor 24 from one country to another. It's the manufacturer of 25 the materials, how they draw the wire. Some things

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have changed over time, but everybody pretty much has
 access to the same exact materials to build a
 transformer.

4 MR. WORKMAN: Okay. I don't have any other 5 questions. I thank you all. You've all been very 6 helpful.

7 MR. McCLURE: Before we turn to the industry 8 analysts, if I could follow up just a bit our dealings 9 with the nonsubject producers, for instance, GE in 10 Mexico or, you know, wherever else. Are they locking 11 in the raw material costs similar to what you said the 12 Koreans are doing?

The way that I've seen it 13 MS. CUSACK: materialize in the market, and will look for you guys 14 to say what you saw as well, but the way I saw that 15 it's materializing from my conversations with 16 customers, the Koreans were on the front edge of 17 18 offering fixed pricing, and the rest of the people trying to service products on that market have been 19 forced to follow. 20

21 MR. McCLURE: Okay. Thank you. Now we will 22 turn to our commodity analyst, Dennis Fravel.

23 MR. FRAVEL: Okay.

24 MR. McCLURE: Okay. Andrew David, of course 25 either one, both.

1 MR. FRAVEL: Okay. My name is Dennis Fravel. And as Jim said, I'm an industry analyst. 2 My first question is with regard to the production 3 process, do you have your own wire drawing operations 4 5 in the plant usually, or do you get that from the provider of copper wire? Is that a production process 6 typically in the transformer plant? 7

8 MS. CUSACK: It depends on the transporter 9 plant. I have facilities that have that ability, and 10 I have facilities that buy the wire. So it's really 11 dependent on how vertically integrated the particular 12 plant is, and usually it's an economic decision 13 whether or not we diagram or we produce it.

14 MR. FRAVEL: Okay. And then the wrapping of15 the conduct you do inhouse generally?

16 MR. STIEGEMEIER: Not typically. Typically, for these complex CTCs like you saw in the one 17 18 picture, that gets purchased from a manufacturing unit. When you visit these factories, and you see the 19 infrastructure that is necessary to make a CTC, it is 20 pretty easy to see why every factory doesn't have one. 21 22 MR. FRAVEL: Okay. With regards to the 23 grain-oriented steel, you showed in your slideshow that there is a laser scribing, and that it is 2.4

subsequently glass film and phosphate coating?

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MR. STIEGEMEIER: Well, actually, every one 1 of these thin laminations of steel will have that 2 glass coating on it. And then sometimes you laser 3 scribe to improve the lost performance. 4 5 MR. FRAVEL: Okay. So the laser scribing would be an operation that might be --6 MR. STIEGEMEIER: An additional step. 7 8 MR. FRAVEL: -- at a transformer plant. MR. STIEGEMEIER: Well, actually that would 9 be done by the steel manufacturer. 10 11 MR. FRAVEL: Okay. So you're preordering these parameters on top of the grain-oriented steel. 12 MR. STIEGEMETER: Yeah. There is different. 13 thicknesses of steel that help minimize the losses. 14 Of course, if you go to the steel slide, it's a long, 15 diminishing returns. As you can see, the business 16 part is that gray stuff at the bottom. The green and 17 18 the yellow part, which are the glass coatings, are kind of like the non-affected parts. So the thinner 19 and thinner you make the gray stuff, the more of a 20 percentage the glass becomes of your stack. 21 22 MR. FRAVEL: Okay. 23 MR. STIEGEMEIER: And that's not doing you any practical work in terms of transferring the 2.4 magnetic field. So we'll get down to 7 or 9/1000ths 25

of an inch thick in terms of what the gray part of that material is. If the demand for losses and low losses of the transformer isn't very high, we'll even get to thicker and thicker steel. So we'll vary the thickness of the steel, and then actually the grade of the steel, which determines watts per pound of loss of the steel, is also a variable.

8 So there is different parameters that the transformer manufacturer looks at, depending on how 9 highly the utility values losses. And like, for 10 11 example, load losses, which are the losses you see when you start carrying current, versus the no-load 12 losses, which is kind of what you hear when you just 13 energize the transformer and it starts humming, if 14 it's a transformer that sits with moderate load most 15 of its life, the utility may have a higher penalty on 16 the no-load losses. But if it's something like a 17 18 generator step-up that sits more heavily loaded for most of its life, they maybe put a higher emphasis on 19 the load losses. 20

21 So then we kind of put more material cost 22 and sophistication into the copper side of things than 23 the steel side of things.

24 MR. FRAVEL: To what extent does crane size, 25 factory floor size, and paper drawing capacity limit

1 the production range of U.S. and foreign producers?

MS. CUSACK: In terms of crane size, 2 certainly the bigger units get more crane capacity to 3 move them around. But there are other techniques that 4 5 can be used for air pallets that we put units on, and we've got those air pallets at multiple facilities, 6 including our South Boston, Virginia facility on that 7 8 line three that I mentioned that we made the investment in, as well as any facilities worldwide. 9 10 So although grain capacity is a factor, it's not the predominant factor. What is more of factor is, you 11 12 know, do you have the ability to get more product through the shop, where are your bottlenecks. 13

Typically, once you have a facility, it's 14 fairly easy -- my production friends would argue that, 15 but it's fairly easy to add capacity by putting on 16 alternate shifts and also moving production around. 17 18 For instance, our South Boston facility can make many of the products that our St. Louis facility can make. 19 So if St. Louis was doing that up in the business, we 20 21 can actually relocate to the wire products into our 22 South Boston facility. And there is a lot of overlap 23 between those two.

In terms of other constraints for what you can do, it is the engineering talent that you have.

1 In fact, you know, in St. Louis, they have built major 2 pieces of, you know, the heart of some of the very 3 largest power transformers that they have exported to 4 other market places to release capacity.

5 So we certainly have the engineering capability. In terms of test floor, typically the 6 test floors are designed to go even beyond the largest 7 8 range that you're testing. And once you have a facility up and running, it's a fairly minor 9 investment, capital investment, to be able to increase 10 your voltage rating, for instance. If the market was 11 there, it's a very simple calculation in terms of 12 doing that. There is a lot of overlap between what a 13 facility can build. 14

MR. STIEGEMEIER: Maybe just to expand on 15 something Ms. Cusack said, you know, we like to move 16 this transformer onto the test floor fully assembled 17 18 and full of oil. The test floor is one of the bottlenecks, which Ms. Cusack mentioned. So we like 19 to do all that prep work somewhere else, and then drop 20 it onto the test floor, spend a few days testing if 21 22 it's necessary, and then move it on. But, of course, 23 crane capacity, if that's a limitation, you can remove this cooling, and often these things can go on a 2.4 100,000-pound diet by simply draining the oil out of 25

them. Now, that requires some additional handling,
 which of course increase your costs a little. But you
 can move these things if you have a fixed crane
 capacity.

5 In addition to the air pallets that she talked about, there are other techniques we have to 6 move even bigger transformers through these factories. 7 8 MR. FRAVEL: So how much would something like that weigh? What is in your picture there? 9 10 MR. STIEGEMEIER: Shipping weight on that is 11 probably about half a million pounds. And again, this slide shows the shipping weight, just the gray steel 12 13 box.

14 MR. FRAVEL: Okay.

15 MR. STIEGEMEIER: And that's part of the reason that it gets a pretty expensive process of 16 shipping a transformer like this. Number one, the 17 18 rail lines can't hump the transformer. They can't roll it down a hill and have it bang into other rail 19 20 cars, or else they damage the transformer. And that's 21 because, you know, the biggest coal car that anybody 22 ships, which is typically the heaviest thing a 23 railroad deals with, is about 200,000 pounds. So these may weight two to three times that. And so they 2.4 become a monumental thing. Once they start rolling 25

down a hill, they're impossible to stop. And so we 1 actually pay extra money, and there is a sticker 2 3 applied to the transformer as well as a negotiation with our transportation guys that literally we avoid 4 5 humping in the rail yards. MR. FRAVEL: Just a quick question on shell 6 form. Are there other U.S. producers of shell form 7 8 transformers, LPTs, in the United States? MR. STIEGEMEIER: We repair shell form in 9 10 St. Louis. We do not manufacture new in the same 11 building. MS. CUSACK: Efacec does. 12 MR. STIEGEMEIER: Efacec does. 13 MR. FRAVEL: Efacec produces shell form in 14 15 this country? 16 MS. CUSACK: In Georgia. MR. STIEGEMEIER: They're one of those 17 18 Westinghouse licensees I talked about. 19 MR. FRAVEL: Okay. MR. STIEGEMEIER: Old Westinghouse 20 licensees. 21 22 MR. FRAVEL: Do customers request the shell 23 form transformer, ever? Do they put that in a bid for 24 a proposal? MR. MUCHA: It's very, very rare. Most of 25

them actually want to change their shell forms out and put core forms in because of the availability of repair, local service for that product. It's a pretty big differentiator.

MR. FRAVEL: Okay.

MS. CUSACK: Yeah. If you see something is 6 specified, it could be an outlier from what the norm 7 8 would be. It would be if somebody had something, and 9 there was a plate envelope that a replacement would have to fit or would have to be able to fit in the 10 11 same envelope, and it was a shell form to start with. 12 Then they might require it to be a shell form as replacement. But that's a rare occurrence for us to 13 14 see it specified.

15

5

MR. FRAVEL: Okay.

16 MR. McCLURE: Andrew?

17 MR. DAVID: No additional questions.

18 MR. McCLURE: Okay. Thank you. I have got 19 just a few because I know everybody is aching for a break here. Mr. Connelly and Mr. Morgan mentioned 20 21 basic seat on the basis of quality, service, 22 reputation, and mentioned qualification issues. Have 23 any of you had issues as far as being gualified? MR. NEWMAN: We, within our range, are 2.4 25 qualified to most customers that are out there. Ιf

there may be a customer that we are for some reason not qualified for --

3 MR. McCLURE: What would -- or I guess the 4 better question is what would lead someone not to be 5 qualified?

6 MS. CUSACK: It would be very much customer-7 dependent, and it would be based on quality issues or 8 issues in the past, or just that they had sufficient 9 numbers of suppliers that the customer didn't want to 10 make the investment to come to your facility to 11 qualify you. I mean, those would be really the only 12 reasons why you didn't get qualified.

For the people around -- the manufacturers 13 around the table, we're not manufacturers that are 14 poor quality manufacturers with, you know, high field 15 incident rates. You know, the average MTBF recently 16 did this -- but somebody recently did this 17 calculation for me. 18 It goes over 120 years between --19 failures based on the hard empirical data that ABB 20 has. So we are not, you know, in terms of quality, we 21 are not a fly-by-night operation by any means, nor are 22 my colleagues here in terms of their quality.

23 MR. STIEGEMEIER: And a utility goes to a 24 pretty significant expense to qualify a manufacturer. 25 I mean, they'll come through and audit our production

processes, our quality processes, verify that our ISO-1 9001 certifications, that we're really following the 2 3 steps that we say we're doing. So it shouldn't be underestimated what it takes a utility to gualify a 4 5 factory. And as you get into these higher and higher voltage transformers especially, the need for almost 6 clean room environments, a particle will kill you on a 7 8 800 KB transformer. So, you know, the customer will show up, and they will want to verify that you're 9 10 wearing booties and shoe protection, and that your 11 winding floors you literally can eat off of. That's the kind of process that they go 12 through to gualify you. 13 MR. LUBERDA: Mr. McClure, I just want to 14 15 say that everybody in this room, including the Koreans, are qualified at a large number of major 16 customers in this country, and we see them every day. 17 18 We see each other, we see them. 19 MR. McCLURE: There was mention of the large power transformers, over 300 MVA. And if this is BPI, 20 you can give it to me later, but, you know, is 21 22 everybody producing over 300, or is that something 23 that is not so much? MR. BLAKE: Yeah. We produce 500 MVA in our 2.4

25 shop right now.

1 (Pause.) MR. NEWMAN: Delta Star is not producing --2 3 it produces up to 180 MVA. MR. McCLURE: Okay. 4 5 MR. LUBERDA: Efacec, by the way, goes up to I think 1,500 MVA, is what's on their --6 MR. McCLURE: Okay. Where is Efacec? 7 8 MR. LUBERDA: They're in Georgia. MR. McCLURE: Savannah. 9 MR. LUBERDA: Outside Savannah, Georgia. 10 11 MR. McCLURE: Okay. Just out of curiosity more than anything, the wind farms and the -- is that 12 mostly out on the West Coast or is that national now? 13 MR. MUCHA: It's national. There is a lot 14 15 in the Midwest. Iowa is a very good wind state. Also 16 California and Pennsylvania. MR. STIEGEMEIER: You can look at it in 17 18 Pennsylvania, where the wind blows. And not 19 surprisingly, that's where the wind farms have cropped up. As Rick says, Iowa through the Dakotas, and into 20 Oregon and Washington, and then Oklahoma and the 21 22 Panhandle of Texas are very windy places, too. 23 MR. MUCHA: And eventually it will go offshore, to be honest with you -- more of that here, 2.4 25 based on Europe --

1	MR. McCLURE: I spent two years in the Army
2	at Fort Sill, Oklahoma, so
3	MR. STIEGEMEIER: There you go.
4	(Simultaneous discussion)
5	MR. MUCHA: Texas, yes.
6	MR. McCLURE: Yes. Sort of on a personal
7	basis, had a transformer explode on the pole outside
8	our house on Monday night, which led to a very cranky
9	household. Dominion supplies power in our part of
10	Virginia. Is an operation like Dominion buying what
11	is now not rusty and better looking, if a transformer
12	can be better looking? Are they buying those, and are
13	those essentially, for wont of a better term, off the
14	shelf items?
15	MR. MUCHA: They're more of a commodity.
16	MR. STIEGEMEIER: As Rick mentioned, most
17	larger utilities like a Dominion, they'll have a
18	service center, multiple service centers, where they
19	keep these things in stock.
20	MR. MUCHA: They'll buy hundreds of them.
21	MR. STIEGEMEIER: And that's literally why
22	they let it go to the point of failure, because they
23	know, despite the fact that they're probably
24	uncomfortable when the McClure household is hot, too.
25	They know they can get you back in business within a

1 few hours.

2	MR. McCLURE: And they did. I'll give them
3	credit. And we've had a lot replaced in our
4	neighborhood after
5	MR. STIEGEMEIER: The problem with these
6	things, they're not exactly babies, but they take nine
7	months or more to deliver. So when one of these goes
8	out
9	MR. McCLURE: Okay.
10	MR. STIEGEMEIER: And what really scares the
11	utility is when a couple of them might go out. There
12	could be a part of a city I mean, in fact, there
13	was an explosion of one transformer out in Phoenix at
14	a substation called Westwing that subsequently took
15	out four adjacent transformers, and for that whole
16	summer, the city of Phoenix had to do some very
17	serious power curtailment. And literally, they were
18	begging their customers to turn the thermostats up to
19	85 or higher so that they could avoid rolling
20	blackouts.
21	MR. McCLURE: Dominion would also be a
22	customer for you in the large power tripping.
23	MR. STIEGEMEIER: Absolutely.
24	MR. McCLURE: Okay. I'm just one thing
25	about the one bid approach is is that just with
public utilities, or is it with -- I mean, what 1 portion, I guess -- and this can just be a general 2 3 answer, and if you any idea of the bids you engage in are one bid as opposed to giving you the opportunity 4 5 to tweak it. MR. NEWMAN: For Delta Star, it ends up 6 being about 50/50. But if you count the number of 7 8 units, obviously the number of bids, it would skew toward to the one of or the spot market. 9 10 MR. McCLURE: Okay. 11 FEMALE VOICE: Do you have a good 12 representative -- percentage? MR. MUCHA: I would say that 80 percent of 13 what we do is one time out. 14 MR. McCLURE: Wow, interesting. 15 16 MR. STIEGEMEIER: Now, how many times do you quote an alternate? 17 18 MR. MUCHA: That's --19 MR. STIEGEMEIER: Infrequent? It's, I would say, less than 20 20 MR. MUCHA: 21 percent of the time do we get asked for our best and 22 final offer. You're short-listed, you made all the 23 other qualifications. Give us another price. You're not low, basically, they're saying. They don't tell 2.4 25 you where you're at.

1 MS. CUSACK: But I agree with what Steve 2 said. I mean, the number of units on a blank bid is 3 significantly more than when you get a one-off bid.

MR. McCLURE: Okay. One last question, and 4 5 I do like your idea of sitting down, drinking beer, if it would be in St. Louis in the ballpark, watching my 6 beloved Cardinals resign Albert Pujols. Anyway, just 7 8 in case the Commission asks, from the time the request for bid comes out until you get -- I think you said 9 this was the first step. How many months are we 10 11 talking about here?

MR. STIEGEMEIER: The design process, just to take the customer specification and get it to a point you're ready to start buying material, can take six to eight weeks. And then it might take 10 or 12 weeks to buy the materials. And then the actual production time may only be four, five, or six weeks. So --

MS. CUSACK: But there is a little designer views and stuff. I mean, typically for a unit of that size, from the time that an order comes in to when it's at the test floor, you're talking about seven months, that kind of time frame, seven, eight months time frame, with all of the activities that need to go on, all the spec reviews, design reviews, and the

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production. It's the lead time on materials that it
 would not be unusual for --

3 MR. McCLURE: And that would generally be 4 the same for all the producers at the table, as well 5 as the Koreans, the Mexicans.

MR. MUCHA: Similar.

6

7 MR. McCLURE: Okay. And by the way, 8 everybody, the Commission is really familiar with grain-oriented steel, and various counsel. We know 9 far more than we wish. Anyway, that's all I have. 10 11 Anybody else got -- I want to thank you all. For those of you who traveled from afar, go back to St. 12 Louis and get them going. And that finishes this 13 phase. We will take a ten-minute break and commence 14 15 with Respondents. You can go out in the hall. The 16 restrooms go to the left. And keep walking, and you'll see the sign on the right. Or you can go --17 18 those who know the building a little better, you can go down to the first floor. I would remind everybody 19 this is not a secure room, so leave somebody to watch 20 21 your BPI stuff.

22 (Whereupon, a brief recess was taken.)
23 (Whereupon, at 12:01 p.m., the conference was
24 resumed.)

25 MR. MCCLURE: Okay. We are back in

business. The housekeeping chore for this handout for 1 Kelley, Drye will be entered as Exhibit 1. 2 3 (The document referred to was marked for identification as 4 Exhibit 1 and was received in 5 evidence.) 6 One thing that I forgot to ask the Petitioners, and 7 8 this is for both sides, any information that you have on non-subject countries that you can throw in, you 9 know, be it public or any studies that you have, that 10 11 you can throw in the post-conference briefs, would be 12 greatly appreciated. And with that, I will turn to Mr. Connelly 13 and Mr. Morgan. Welcome. 14 15 MR. CONNELLY: Thank you very much. One again, Warren Connelly, Akin, Gump, on behalf of 16 Hyosung and HICO America. Our presentation today is 17 18 going to be by Jason Neal, who is HICO's Vice President for Sales and Marketing. 19 And also available to answer questions is 20 21 Henry Paik, who is HICO America's president. After 22 Mr. Neal gives his presentation, I will have a few 23 brief remarks, and then we will turn it over to David 2.4 Bond. MR. NEAL: Good morning. My name is Jason 25

Neal, and I am Vice President of Sales and marketing
 at HICO America, which is a U.S. sales subsidiary of
 the Hyosung Corporation.

I have worked for HICO America for 10 years as a sales manager and sales director. In my current position, I oversee HICO America's sales and marketing efforts.

8 When we first heard that the U.S. industry 9 has accused us of aggressive and unfair pricing, we 10 were all stunned. There are many ways that we win 11 business, but it is never solely on the basis of 12 price.

We bid on a cost-plus basis, and we often 13 lose bids because our prices are too high. Our prices 14 reflect the value associated with high quality 15 products, shorter lead times, field services, 16 engineering assistance, and other customized services. 17 18 Another reason for our surprise is that, 19 frankly, we don't compete very often with the Petitioners. From 2008 to 2010 a substantial portion 20 of HICO's U.S. sales were transformers over 300 MVA, 21 22 but you just don't see the Petitioners participating 23 in that segment of the market. 2.4

ABB focuses on producing smaller transformers in its U.S. facilities, and it imports

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1 the larger ones. Our understanding is that ABB

focuses on producing transformers of less than 300 MVA in its U.S. facilities, which a specific focus on even smaller units.

5 Similarly, we believe that the Delta Star, 6 that being a transformer focus, focuses primarily on 7 producing units less than 100 MVA.

8 On August 1st, the Petitioners filed a 9 letter with the Commerce Department, in which they 10 stated that the capacity to produce a product is not 11 the same thing as actual production. We certainly 12 agree with that point.

13 These companies may state on a website their 14 marketing materials and that they offer transformers 15 of over 300 MVA, but we don't believe that there is 16 much if any production.

We are also surprised by the Petitioners' claim that we are injuring the U.S. industry when we keep reading reports about the significant amounts of money that are being spent to expand domestic production.

ABB constructed a new facility in Georgia that opened in late 2009, with a reported price tag of 142 U.S. million dollars. Wachesaw is the largest U.S. producer of units 300 MVA and above, and it has

expanded its capacity this year by 50 percent for a
 \$70 million investment.

And the industry is establishing a \$100 million U.S. production platform that will begin commercial production next year. Mitsubishi is building a new facility in Tennessee for a reported \$200 million that will begin producing in 2012.

8 The U.S. industry is expanding, but not 9 contracting, and I can't see how their claim that 10 imports are causing them financial distress could 11 possibly be correct.

12 With that introduction, I plan to cover 13 three topics. First, I will discuss generally the 14 U.S. transformer market. Second, I will explain how 15 HICO sales its transformers in the U.S., and third, I 16 will describe the overall U.S. and global market 17 conditions.

18 Regarding the U.S. market for transformers, 19 Hyosung began manufacturing power transformers in 20 1969. Today, we offer a full range of power 21 generation and transmission products that satisfy the 22 national and international standards.

23 Our success depends not just on producing 24 the best productions, but also on being responsive to 25 our customers' needs. For this reason, Hyosung

1 established HICO America in 2001.

2	Today, we employ 50 people in our
3	Pittsburgh, Greensberg, and Los Angeles offices. and
4	with this local presence, HICO has developed a strong
5	recommendation for customer service and product
6	development.
7	Hyosung is regarded as one of the global
8	leaders in technology of transformers, and is in fact
9	one of the few companies that can produce both shell
10	type and core type transformers.
11	MR. MCCLURE: One of the advantages of
12	living next door to the fire department. We used to
13	have the police department here to. Anyway, go ahead.
14	MR. NEAL: In fact, we are only one of a
15	few companies that produce both shell type and core
16	type transformers, with ratings up to 765 kB and 2000
17	MVA.
18	In contrast, the Petitioners only produce
19	core type transformers, with operatings up to 345 KB
20	and focus on the units I would like to address what
21	I know as an important issue, which is the
22	Petitioners' decision to define a like product that is
23	covering all transformers covering 60 MVA or greater.
24	I have already mentioned that we really do
25	not compete with U.S. producers for transformers above

1 300 MVA, but apart from that, we disagree with the 2 distinctions that the Petitioners have attempted to 3 draw between transformers of 60 MVA and above, and 4 those between 10 and 60 MVA.

5 Much of their justification for excluding 6 the less than 60 MVA transformers relies on references 7 to what we understand to be small distribution 8 transformers, such as pullout or backup transformers.

9 But those products are typically below 10 10 MVA, and have entirely different construction, and are 11 sold in entirely different channels of distribution.

In our experience, there is little In our experience, there is little difference between transformers of 60 MVA and those of 61 MVA and above. All transformers, whether 10 to 60 MVA, or 60 MVA and above, are customized and made to order. They rely on the same technology, particularly for core types.

Producers will typically use the same design technology for manufacturing processes to produce 10 to 60 MVA transformers as they would for 60 MVA and above.

A 10 to 60 MVA unit is based on the same technology, and is often produced in the same production facilities, using the same processes and employees that produce 60 MVA and above.

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1 Importantly, utility companies frequently 2 give opportunities to purchase transformers of 60 and 3 lower MVA from the same suppliers, and at the same 4 time that they give opportunities for 60 MVA and 5 above.

Although I do agree that the 10 to 60 MVA
transformers are priced differently than those of 60
MVA and above, that is a misleading distinction. You
will always find price differences, for example,
between 60 to 100 MVA, and 100 to 300 MVA, or 300 to
350 MVA.

Pricing differs on units from 10 MVA all the way up to 1,000 MVA. You will see price differences between core versus shell type transformers. There are many ways to slice up this market and fine price differences, but in the end, when you consider the nature of these products, and how they are produced and sold, the differences are not very unique.

19 In fact, I find the Petitioners' exclusion 20 of 10 to 60 MVA transformers particularly curious when 21 considering that to the best of my knowledge the heart 22 of the business of ABB, Delta, and Pennsylvania 23 Transformers is in the 10 to 60 MVA.

Next, I would like to discuss the sales andbidding process. HICO makes sales through open

1 bidding, closed bidding, and alliance agreements.

2 Open bids are typically with public utilities, while 3 closed bidding is more often undertaken by private 4 utilities.

5 Under alliance agreements, HICO does business with customers without undergoing the bid 6 process for a contract period of two or three years. 7 Many utilities prefer to enter into an alliance 8 partnership because it allows them to address lead 9 10 times, produce internal evaluation processes 11 associated with evaluating bid upon bid, fixed terms and conditions, and improve the overall efficiencies 12 of the project. 13

In 2010 a substantial portion of HICO's U.S.
sales were made pursuant to alliance agreements.
These types of alliance partnerships are very common
in the U.S. market.

For both open-ended and close-ended, HICO sets initial bid prices by first studying the required terms and conditions, specifications, and work scopes for each project. This is an extensive process that involves our engineers in Korea and in the U.S.

The bid price is based on a cost-plus level, and it normally includes the CIF base import price, custom duties, sales commissions, movement costs

1 incurred from a U.S. port to the job site,

2 installation and testing, and launching services.

In order to determine the exact costs for transportation, installation, and other related services, HICO solicits bids from subcontractors, and selects bidders based on quality, experience, and competitiveness.

8 These additional costs, plus a markup for 9 profit, are added to the base import price from our 10 initial bid price to the purchaser. The only reliable 11 competitive price information that is available 12 consists of the bids offered for public utilities.

For these public bid openings, we have the wins, the loses, and the prices, and in the vast majority of instances, HICO is not the lowest priced bidder for the procurements. We will submit these details in our post-conference brief.

18 The Petitioners claim that the producers 19 that provide the lowest bid and can meet 20 specifications will generally win a contract. We 21 strongly disagree with this claim for important 22 reasons.

Importantly, they do not mention the fact that bids are not always open to all suppliers. There have been some instances in which HICO has been

1 excluded from bidding.

2	For example, HICO may not be permitted to
3	compete under some Buy America provisions where local
4	utilities are required to purchase transformers that
5	are manufactured in U.S. plants or in American
6	facilities.
7	In other instances, HICO has not been
8	permitted to bid because (Electronic interference) has
9	not approved HICO as a supplier, or determined that
10	HICO was not able to meet the purchaser's required
11	specifications, technology, delivery date, or other
12	critical terms and conditions.
13	In our importers questionnaire, we submitted
14	information on our 25 largest bids since 2008. For 13
15	of those 25 bids, the Petitioners were either not
16	capable of building the units in U.S. facilities, did
17	not provide a quotation from U.S. facilities, or were
18	not allowed to bid.
19	One or more Petitioners bid on the remaining
20	12 bids, and on six of them, they were awarded some or
21	all the business. HICO has also experienced
22	situations where the customer may create a short list,
23	and provide the number of suppliers that are in
24	contention for the bid.
25	In these situations the customer will

request the best and final pricing from suppliers, as
 well as other information pertinent to the subject
 bid.

4 It is also important for the Commission to 5 understand that prices are not the only factor, or 6 even the most important factor, that our customers 7 consider in making purchasing decisions.

8 This is evident in the process to become a 9 qualified supplier, which is at times an arduous 10 process. There are many instances in which the 11 Petitioners are not qualified to bid for this reason. 12 For example, a very large utility or IOU, and the 13 Petitioners are not on the approved bid list.

One of the Petitioning companies used to supply another very large IOU, but it was removed from bid opportunities due to -- concerns. In my experience in bids that HICO has won, the domestic producers were typically not even qualified; and in those bids that HICO lost, domestic producers have backed away.

For example, in 2008, HICO submitted a winning bid with a major engineering construction company, but the Petitioning companies did not participate in this bid because they did not build units of the specified capacity.

Likewise, HICO won a contract in 2008 with another very large IOU for large capacity shell type units that U.S. companies were not capable of producing.

5 In contract, HICO lost various contracts to 6 U.S. producers where the Petitioners were invited to 7 the short list. However, it was unclear whether U.S. 8 companies actually submitted bids for transformers 9 that they intended to produce in their U.S. facilities 10 or in their overseas plants.

Another important non-price factor is lead time. Regardless of the price, if a utility needs a unit by a certain date, and the potential supplier cannot meet that deadline, or otherwise has a poor track record of meeting delivery requirements, then it is unlikely to win, even if its offers are lower or the lowest price.

HICO's largest U.S. customer during the 2008 to 2011 period has continued to buy from us because of our demonstrated ability to meet delivery deadlines. HICO is able to offer and consistently meet lead times that our competitors cannot match.

Having an advanced facility may allow a party to be better evaluated than other parties in a competitive transformer bid. A facility that shows

well has significant advantages because it has been
 optimized for more efficient production, has shorter
 lead times, and can better deliver units to customers.

Finally, although it is difficult to
measure, customer service, flexibility, and the ease
of doing business are key aspects of customer's
evaluation processes.

8 HICO has not only invested to produce the 9 best quality products and improve its plant 10 efficiencies and technology, but also provide its 11 customers with the best possible service.

12 This investment has been successful. For 13 example, in some applications that require extreme 14 flexibility and service levels to customers, HICO is 15 successful, while domestic suppliers are not because 16 of our customer service levels, by demonstrated 17 flexibility, and a willingness to engage in good faith 18 negotiations on contractual terms and conditions.

19 Thus, HICO has been able to continue making 20 U.S. sales, even though its prices are frequently 21 higher than its competitors. Finally, I want to touch 22 briefly on the state of the global market. Beginning 23 in 2009, demand everywhere dropped due to the global 24 recession.

25

We saw the same slowing of demand under 60

1 MVA transformers as we did for 60 MVA and over.

2 Things have definitely improved and we expect that 3 demand will continue to improve in our deliveries for 4 years.

5 That being said, for Hyosung, for export 6 markers other than the U.S. have become more important 7 in the past years. Beginning markets such as India, 8 the Middle East, and Western Europe, among other 9 places, have been growing at faster rates than the 10 U.S. because of population growth and investments in 11 construction.

For 2010, HICO expanded its production capacity in order to serve customers in non-U.S. markets. This reflects a stronger demand than HICO's marketing efforts in other export markets.

I expect that this trend will continue for the foreseeable future. As for the U.S., our shipments will remain stable at best, but they certainly will not increase substantially as the Petitioners here allege.

Hyosung will not use its additional production capacity to increase its U.S. shipments for a few reasons. First, demand has been and will remain stronger in other markets than in the U.S. Hyosung has made successful efforts to expand its customer

1 base in these other markets.

2	Hyosung will not suddenly abandon these
3	markets after making such significant investments to
4	develop new customers. Second, even with its
5	additional capacity, Hyosung has only limited unused
6	capacity with which it can produce additional
7	transformers for the U.S. market.
8	Third, as I stated at the beginning of my
9	remarks, the U.S. industry has been undergoing
10	significant expansion with hundreds of millions of
11	dollars in investments, and with such significant
12	increases to U.S. production, Hyosung would have
13	little incentive and ability to expand its U.S.
14	presence, even if it wanted to turn its attention away
15	from the other markets that it serves.
16	HICO will of course continue to supply its
17	existing alliance partners and longstanding customers,
18	but we are a stable and mature player in the U.S.
19	market as our reported shipment levels confirm, and
20	this will not change in the future. That concluded my
21	remarks. Thank you.
22	MR. CONNELLY: I am just going to have a few
23	brief remarks about issues that have arisen in the
24	petition and in the questionnaire responses again this
25	morning.

Obviously the like product issue is foremost in everyone's minds given the nature of the questions today, and the discussions that we have had, and that I am sure that we will continue to have.

5 The first point that I wanted to make, 6 however, is that even if we accept the Petitioners' 7 definition of a like product, we think that we are 8 entitled to a negative determination at this stage.

9 But there really isn't enough information on 10 the record yet I think for the Commission to conclude 11 that the Petitioners are capable of making products 12 from 60 MVA up to what I heard this morning, I think, 13 was 500 MVA.

Now, the Commission staff has gone out, as we are pleased to know, and asked the domestic industry, each of the members of the domestic industry, to indicate what it is that they have been able to build in terms of MVA capacity.

We think that it is absolutely essential that each of these producers identify not just what they are capable of producing, because as we have heard from the Petitioners, it doesn't matter what you are capable of producing.

24 What matters is what you produce. So, we 25 think that it is important to know, and we are

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entitled to know, what each of the domestic producers 1 has produced with respect to units 300 MVA and above. 2 We are entitled to know the number of units 3 that they have produced in the period of 4 5 investigation. That information is not on the record 6 now. That may have like product implications, and 7 8 it certainly has attenuated competition relevance. We

9 don't think that there is meaningful competition from 10 the domestic industry in the over 300 MVA market, and 11 if that is true, that has very significant 12 implications for the Commission's determination, and 13 our view that it is essential that the report go into 14 this issue in great detail.

15 Secondly, alliances. Alliances has gotten a 16 great detail of attention this morning. We don't run 17 from the issue of alliances by any means. We are 18 going to give you in our post-conference brief because 19 it is confidential a discussion, a thorough 20 discussion, of why HICO and Hyosung have been able to 21 enter into alliances.

They do account for a substantial part of the business. These alliances are formed not on the basis of price. We have a completely different view from the domestic industry of how these alliances come

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about, and the factors that influence utilities to
 enter into these alliances.

And again it will be essential, we think, to provide the Commission with a full view of the dynamics of this marketplace, and for there to be a thorough discussion in the nature of alliances, and the fact that we go into them in your report.

8 Next, the issue of lost sales and lost 9 revenue. We are very pleased that the Commission has 10 gone out and asked utilities to describe why it is 11 that they have entered into contracts with whoever 12 they happen to enter into them with.

Obviously, I am not going to go into the 13 14 details of any of the responses that you have gotten, but suffice it to say that we have gotten so far six 15 responses from utilities through APO releases, and I 16 think that it is fair to say in a general reason that 17 18 the reason that purchasers overwhelmingly provide for 19 purchasing Korean origin transformers fully supports the testimony of Mr. Neal, and I am sure from Hyundai 20 witnesses as well. 21

It is rarely the case that the low bidder wins the contract solely because it has offered the lowest price. Moreover, the winning bid is not always the lowest bid, and sometimes the domestic industry

1 never makes an offer.

2	And finally it is also the case as we heard
3	that some procurements are not open to Korean
4	producers because there are Buy America clauses. Now,
5	we heard testimony this morning that Korean producers
6	can bid on Buy America jobs because of the Korean FTA.
7	Well, I have been real busy the last couple
8	of months, and I don't think that there is an Korean
9	FTA just yet. Finally, on the issue of the domestic
10	industry's condition.
11	You of course, and as you always do, have
12	compiled a composite financial statement of the
13	domestic industry, and when you do that, you are going
14	to be adding in or aggregating data from the domestic
15	industry that is in all different types of I think
16	financial conditions.
17	But what is important here is the fact that
18	a number of these companies have expended money
19	recently for new facilities or expanded facilities.
20	That suggests the high likelihood that their costs may
21	be high because they are in a start-up phase.
22	The revenues have not caught up to the
23	expenditures that they have made, and so we think that
24	some caution is advised in presenting this case in the
25	report precisely because the trends that may exist may

not be attributable to anything other than an
 imbalance between costs and revenues due to start-ups.

And we will go into this in more detail with respect to specific producers in our post-conference brief, and finally, you have a limited amount of information in the questionnaire responses from the domestic producers concerning sales revenue in the under 60 MVA segment of the market.

9 It is possible, and we think advisable, for 10 the Staff to compare the trend in sales revenue in the 11 under 60 versus the over 60, because what you are 12 going to see is a decline in demand that is relatively 13 the same in both segments of the market, and that is 14 precisely our point.

What is going on here with respect to the condition of the domestic industry in the over 60 market is reflected in the under 60 market, where they have no beef apparently with Korean producers or any other producers as far as we know.

But at the same time, their sales revenue on under 60 seems to be going down significantly. And lastly I want to make one technical point, and that is that I was happy to not here from the domestic industry this morning that you should look at the unit price, a price per MVA.

That is not how the industry looks at price 1 trends, and so the standard commission analysis, where 2 you might look at these, really has no application 3 here precisely because these are one offer type units 4 5 by and large, and therefore because they are so unique, looking at AUVs, these are an absolute basis 6 or trend basis and really makes no sense in this 7 8 investigation, and with that, I will conclude and turn it over to David. 9

10 MR. BOND: Good afternoon. My name is David 11 Bond, and I am partner with the law firm of White and 12 Case. Our panel was here this morning on behalf of 13 Hyundai Heavy Industries, Hyundai USA, and Hyundai 14 Power Transformers.

I am going to introduce you to the various members of our panel, and let them speak with you, and then come back at the end and offer some final comments.

To my right, we have Mr. Hwan-Soo Lee, from Hyundai Heavy Industries. Mr. Lee is going to make some comments to you about the conditions in the U.S. market, and the sales process, et cetera.

23 We have Mr. Morgan, who you have already 24 met, and he is going to make some comments about the 25 factors that the Commission will consider in its

1 preliminary determination.

2	Next, we have Mr. Gyou-Chul Lee, from
3	Hyundai Power Transformers in the United States. Mr.
4	Lee is in charge of finalizing the plant that we have
5	heard about, and he is going to talk about how that is
6	going.
7	Next, we have Deirdre Maloney, also with
8	White and Case, and she will spend some time talking
9	about the various investments that the U.S. industry
10	is making in production here.
11	And then Greg Northrup, also with Hyundai
12	Heavy Industries, and Christina Chang, an Associate
13	with White and Case. So, with that, I would like to
14	turn it over to Mr. Lee.
15	MR. H. LEE: Good afternoon. My name is
16	Hwan-Soo Lee, and I am employed by Hyundai Heavy
17	Industries. My current position is General Manager,
18	and I have been with HHI for 13 years.
19	My current responsibilities include
20	overseeing the sale of large power transformers to the
21	United States. HHI does not consider transformers
22	with a capacity below 100 MVA to be large power
23	transformers.
24	I understand that the Petitioners had
25	defined large power transformers as those with a

1 capacity of 60 MVA and above. So, today, I will 2 follow that definition even though I do not agree with 3 it.

As you have heard, large power transformers are large, made-to-order, pieces of capital equipment. I heard the Petitioners repeatedly say that large power transformers are sold based on price, but I do not agree with this.

9 It is important to recall that there are two 10 primary types of purchasers in the U.S. market; public 11 utilities and investor owned utilities. Construction 12 companies also purchase large power transformers, but 13 they account for a small portion of the market which I 14 would estimate as less than 15 percent in 2010.

Public utilities typically have an open bidding process. An open bidding process means that any supplier can participate, and does not need to be approved by the utility before submitting a bid.

You might think that the large numbers of bidders, combined with the fact that most municipal utilities are required to accept the lowest bid, means that the lowest price always wins. But that would be the wrong conclusion.

In fact, the utility, whether public or investor-owned, evaluates many factors, including the

efficiency rating, the manufacturer's failure rate, the no load loss, the load loss, the fan loss, on-time delivery rate, and the past performance with the customer and with other customers.

5 All of these factors are highly important to 6 the utility because they impact the reliability of the 7 transformer and its useful life, and the overall 8 expense of operating the transformer.

9 Different utilities may do things somewhat 10 differently, but in general, the utility assigns a 11 different loss evaluation value to each on of these 12 factors, and calculates an evaluation cost.

13 The evaluation cost also includes the cost 14 of freight. The utility makes its purchasing decision 15 on the evaluation cost, not the initial bid. HHI 16 tends to participate more often in the investor-owned 17 utility bids.

I estimate that approximately 80 percent of HHI's bids in 2010 were to investor-owned utilities. When HHI participates in a bid, it typically doesn't know who else is participating.

Things like the size and location of the project, and the capacity an voltage of the transformer, may give us an indication as to who the other bidders are. But ultimately HHI is not sure who

1 the other bidders are.

2	As I mentioned before, investor-owned
3	utilities normally do not have an open bidding
4	process. First, a bidder must be approved by the
5	utility. Approval is a lengthy process, lasting for
6	as many as 10 years, and involves inspections of HHI's
7	facilities by the utility, and a large amount of
8	information is exchanged.
9	Second, the investor-owned utility must
10	invite HHI to bid. If HHI is invited to bid, the
11	first thing it does is to give the specifications to
12	its engineering design team.
13	The engineers will work out the design over
14	the course of two weeks. Once we are confident that
15	the design is appropriate and within the
16	specifications, we cost out the materials, labor,
17	overhead, and profit, along with any other items
18	called for, like installation and oil
19	The bid HHI submits take several factors
20	into account, including past relationship with the
21	customer and the project site. In almost all
22	instances, once HHI submits the bid, it learns only
23	whether or not it won the bid.
24	As I mentioned, a small number of municipal
25	utilities publish bid results. With those limited

exceptions, neither the municipal nor investor-owned utilities announce the amount of the winning bid or the identity of the winning bidder. The bid terms normally require that the results be kept confidential by all parties involved.

Another point on price that is important to keep in mind is that it is meaningless to look at perunit or per-MVA values of large transformers as indications of price.

Because there is such a wide difference in product mix due to differences in capacity, and voltage, and other specifications, average unit values are not used by HHI or the industry.

I mentioned earlier that HHI does not know in most instances who the other bidders are. The factors I mentioned, such as project size, location, and capacity, and voltage, give us some clue.

HII frequently participates in bids in which the capacity of the transformer is above 300 MVA. In this segment of the U.S. market, we expect the competition will be from offshore companies such as ABB in Brazil and Spain, Siemens Brazil, and GE Prolec in Mexico, and not from U.S. based producers. To HHI's knowledge, except for possibly

25 EFACEC, and if so, only recently, U.S. producers have

not participated in bids for transformers with
capacities of 300 MVA and above, or over 345 kV.
Our understanding is that the U.S. producers
do not have the necessary machinery and equipment to
produce transformers of these sizes, which would
require significant capital expenditures.
HHI has been selling large power
transformers to the U.S. market since approximately.

8 transformers to the U.S. market since approximately 9 1982. To my knowledge, in the almost 30 years that 10 HHI has been selling to the United States, there has 11 never been an allegation of unfair trade made against 12 it.

There were a number of factors occurring in the market just before 2008 that I believe the Commission may find of interest. From mid-2007 until early 2009, we had a large number of orders. We had difficulties obtaining key inputs, such as high voltage bushings.

Lead times stretched out for as many as 20 months in some cases, and were well beyond the normal 10 month lead times in many others. This was an unusual situation in which some orders placed during that period may not have entered the United States until 2010.

25 Thank you for your attention, and I am

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available to respond to any questions that you may
 have.

MR. MCCLURE: Thank you, Mr. Lee. 3 I am Frank Morgan with White MR. MORGAN: 4 5 and Case. Upon the completion of Mr. Lee's testimony and some of the other record evidence in the framework 6 of the Commission's injury analysis, and in that 7 8 respect, I would note the following in my remarks, which will be brief. 9 Conditions of competition. We believe that 10 11 completion is attenuated and the record establishes that. As you just heard, there is limited competition 12 between the U.S. and made in Korea power transformers 13 at the larger capacities, and you never heard anything 14 15 this morning about voltages. 16 Voltages are an absolute limiting factor, and if you don't have certain testing equipment, you 17 18 cannot produce a power transformer above a certain

19 voltage.

20 So there is no question and there is a 21 bright line as far as where or when. But then in 22 terms of the MVA, there are factors, such as crane 23 capacity, facility layout, and the size and number of 24 dryers that are used in the vapor phase, which is the 25 drying phase that was discussed during the morning

1 presentation.

2	Those all determine the degree to which you
3	can really produce a large capacity power transformer,
4	and yes, as you heard, you can use air pallets and
5	other workarounds to produce large power transformers
6	in the higher capacity sizes, but that adds costs to
7	production as you also heard this morning that it
8	demonstrates that the facility is not truly designed
9	to handle that high capacity power transformer.
10	And as you heard the testimony from both HHI
11	and HICO, the Korean power transformers that are sold
12	in the U.S. are at the higher capacities, and tend to
13	be in the higher voltages, and domestically produced
14	power transformers are not.
15	Likewise, the Korean imports, as you just
16	heard, do not participate meaningfully in the public
17	utility sector of the U.S. market. It is a very small
18	share of their overall sales to the United States.
19	On volume, you just heard that there were an
20	abnormal set of circumstances that were created by a
21	high order backlog, as well as longer retires, because
22	of the lack of availability of key components, like
23	the high voltage bushings.
24	And those create lead times where some
25	imports that normally entered perhaps in 2009, entered

in 2010. So we think that is a bit of an abnormality
 in the data that needs to be taken into account when
 you are doing the analysis.

In terms of price, you just heard, and I think that it is widely known, that the bids are closed bids. These are not by and large public bids. The results are not public.

8 So the identify of the bidders and the 9 ultimate bid results are not known to other 10 participants in the market. I think we heard that 11 testimony from the morning panel as well. I don't 12 think that there is any dispute about that.

And I think that there is very little dispute about the fact that there is only one round of bidding. So you go in with your best bid, but a potential purchaser doesn't come back and say can you give me a better price. It is again not a typical case that the Commission sees.

And then there are critical differences between the initial bid price and the evaluated cost to the utility, and quite honestly, I am surprised that the morning panel did not discuss this, because bids are awarded on the basis of the evaluated costs, and the evaluated cost is not the same as the initial bid.

1 The initial bid is the price that the 2 supplier proposes, but then there are a number of 3 factors which Mr. Lee testified to, such as the 4 reliability rating, the road loss, the efficiency 5 rating, and those factors actually are monetized by 6 the utility, and result in the development of an 7 evaluation cost.

8 And that is the basis on which the bid is 9 awarded, and it is a critical component of pricing in 10 the industry, and it does mean that the initial bid is 11 not necessarily always or often the accepted bid 12 price.

And while I can't go into details on the lost sales and lost revenue information, I would just ask that you keep a number of factors in mind when you are analyzing that data.

Please note how many and which companies are bidding on the projects. I am sure that you will be doing this anyway, but these are factors that we have already seen in the number of the lost sales that have been released, and the question of whether it is only domestic producers and Korean producers bidding in those events.

And please note whether the lowest initial bid always wins. Contrary to the Petitioners'

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assertions, we believe the record will establish that
 the initial bid does not always win, and that many
 other factors go into the award of the bid.

Please also note the capacity of the
transformer itself, and the voltage that is being bid,
and which companies are competitive, and the different
capacities and voltages.

8 On impact, there appear to be some data 9 issues that need to be resolved on a number of 10 different factors that the Commission considers in 11 evaluating the condition of the industry, and so we 12 will reserve comment for our confidential post-13 conference brief on that.

But no matter how the data issues turn out the Commission must measure the performance of the domestic industry with an eye on the fact that competition between the domestic producers and the Korean imports is limited and attenuated to a meaningful degree.

20 We will also detail in our post-hearing 21 brief the fact that to our knowledge at present 22 neither ABB or SPX, which is

23 Wachesaw's parent, have noted competition 24 from Korean power transformers in the U.S. on a single 25 earnings call during the period of investigation, not

even on SPX's call, which was held just yesterday, or
 ABB's call, which was held on July 21st.

And on this I was surprised to hear Mr. Kerwin's testimony that orders were done in view of the recent statement made by SPX, and I was also surprised to hear the bleak outlook for 2011, when ABB recently reported orders for power transformers in the U.S. were up 24 percent in the second quarter of 2011.

9 Now, it may be that some of that is less 10 than 60 MVA, but if it were, you would think that they 11 would have mentioned that distinction on the call, and 12 if would have been an important enough factor for 13 trends for one group going down, and for the other 14 group going up.

But the statement was simply made that there was a 24 percent increase in orders in the second quarter of 2011. So I would ask you when you are evaluating the record to take into account other evidence beyond the testimony today, and the publicly available information that we will be providing with our post-conference brief.

And then as you will hear from Mr. Lee in just a moment, HHI believes that the U.S. market is very promising. It is putting its money where its mouth is.

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Following Mr. Lee, my colleague, Deirdre Maloney, will explain that it is not just HHI who believes that the U.S. market is promising, but there are a number of other companies who have already made similar investments, or who have committed to doing so in the near future.

7 And then one last point. We heard a story 8 today about the fact that the average useful life of 9 transformers can be as much as 60 to a hundred years, 10 and I think that was presented as an off-hand remark 11 as a cliche.

But just so the record is clear, the 12 domestic industry witness later testified that the 13 number is actually 30 year, or more in the 14 neighborhood of 30 years, and I certainly don't think 15 that Dominion Energy is rolling the dice and letting 16 its transformers in my neighborhood go for 60 to a 17 18 hundred years, although sometimes when the electricity 19 pops off, I might doubt that.

But in any case, I think let's deal with realistic numbers, and not the extremes, and so it is 20 to 30 years, but let's not get to the extreme of the case study.

Now, I would like to ask Mr. Lee, who is the
President and CEO of Hyundai Power Transformers USA,

to make some observations on the market. Thank you. MR. G. LEE: Good afternoon. My name is Gyou-Chul Lee. I am the President and the CEO of Hyundai Power Transformers USA, which is the new transformer plant HHI is building in Montgomery, Alabama.

7 The plant is current under construction with 8 a planned completion date of mid-November of this 9 year. Hyundai Power Transformers USA, Inc. will invest 10 \$130 million to construct the facilities, and 11 additional expenditures will be made once operations 12 commence.

HHI expects that the plant will employ approximately 380 people by 2012. The plant will produce transformers up to 350 MVA measured in base capacity. Those same facilities and workers will be used to produce transformers across this range.

18 HHI's decision to build this plant was not a 19 gamble that market conditions would improve, but an 20 informed decision based on the evaluation of a number 21 of factors, including the fact that the U.S. power 22 grid is aging.

There are a large number of aging power transformers in the United States that will need to be replaced during the coming decade. Plus, there will

undoubtedly be new construction, especially with the
 increasing emphasis on renewable energy sources, which
 also require transformers.

We have a very optimistic view of the U.S.
market in both the near and long term. Thank you.

6 MS. MALONEY: Good afternoon. My name is 7 Deirdre Maloney, and I am a senior advisor with White 8 and Case. This morning, we heard from Petitioners 9 about the gloomy prospects for this industry.

But you have to ask that if the future of the industry is so dire, why would so many companies make substantial investments to expand production and increase product offerings in this industry, because that is exactly what they are doing.

As Mr. Lee just explained, manufacturers, both domestic and foreign, apparently have done the same analysis that HHI has done, and decided that the outlook for the industry is not just good, but it presents enormous potential for future growth and profits.

EFACEC, a large company headquartered in Portugal, recently opened a new transformer manufacturing plant in Georgia, having invested well over a hundred-million dollars in the facility.

25

Mitsubishi Electric Corp. in Japan recently

announced plans to build a \$200 million, 350 thousand
 square foot large power transformer plant in Memphis,
 Tennessee, and that should begin production in 2012.

Wachesaw Electric, a subsidiary of SPX, is planning a \$70 million expansion of its facility that reportedly will increase its size by 50 percent, and as you have just heard from Mr. Lee, HHI recently began construction of a new transformer plant in Alabama.

The Petitioners themselves, until apparently 10 a few months ago, also thought that the future of the 11 industry was promising. At the time of Delta Star's 12 announcement of its \$10 million planned expansion in 13 Virginia, Kendall Jackson, the General Manager of 14 Delta Star, noted that we have been in a growth mode 15 for the last three years, and we are getting to the 16 point where we need to do larger units because of the 17 18 demand.

What are the factors that have led these producers to the conclusion that the future of the U.S. large power transformer industry is so bright? It is no secret that the United States power grid is aging.

Approximately 70 percent of large power transformers are 25 years or older, and as the ABB

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representative indicated this morning, the average age
 of the transformer in the U.S. is 40 years old.

The risk for failure of a transformer begins to increase rapidly after 25 years of age. Many transformers have outlived their useful lives, and they need to be replaced or refurbished.

Despite what you heard this morning, most
industry experts agree that the current system is
unable to meet the expected demand and needs of an
expanding population.

11 Since the 1970s per capita consumption in 12 the United States of energy has doubled, and over the 13 same period the population has grown from 14 approximately 200 million people to more than 300 15 million people.

People have moved from cities into sprawling suburbs, whose infrastructure was built to serve a sparsely populated rural population. The Energy Information Agency estimates that electricity demand is expected to increase by 25 percent by 2030.

21 Recent regulatory actions also ensure a more 22 favorable environment for the expansion and 23 improvement of the U.S. power grid. The Energy Policy 24 Act of 2005 provides tax incentives and loan 25 guarantees for energy production.

1 With the passage of this Act, the Electric 2 Liability Organization was also created to develop and 3 enforce compliance with mandatory reliability 4 standards.

5 Entities found to be in violation of 6 standards may potentially face large fines. As a 7 result, companies must upgrade and maintain their 8 large power transformers to ensure safety and 9 reliability.

When Wachesaw Electric announced plans for its huge expansion of its large power transformer facility, Chris Kearney, the Chairman, President, and CEO of parent company SDS, stated that we think now is a pretty good time for us to make this investment.

15 Other major players in this industry 16 apparently agree. The industry is growing and not 17 contracting. This is simply not a picture of an 18 industry that is injured. Thank you.

MR. BOND: Thank you. I have just two quick comments. My comments relate to the way in which the Petitioners have framed two issues in the Petitioner discussion today. They have been bothering me and so I thought that I would share them with you.

The first observation I have is that this case is not a case on craven pipe or a case on steel

wire rod. The Petitioners acknowledge the various
 points that we are talking about here, a unique
 product that is built to order, and very capital
 intensive, and costs millions of dollars.

5 But when you talk about the pricing 6 conditions in the market, they talk about the product 7 as if it were a commodity that was sold based on price 8 and nothing else, and those two things cannot be true. 9 They don't make sense.

You can imagine in a single project situation as we have that a customer is going to expect to spend millions of dollars on a machine that will last for 20 or 30 years, and the way in which that machine functions is going to have a major impact on their cost structure during that 20 to 30 years.

So, of course the price of purchasing a machine is relevant and important, but in that situation, you can't logically believe as an expert in the transformer industry, or as a trade attorney, that the decision is being driven just by the price of a machine. That just can't be true.

We heard this morning from, I believe, the representative from Delta, for example, that they were unhappy that Hyundai had recently been awarded an alliance agreement with Southern Cal, which is

1 absolutely true.

2	What they didn't say is that that was not a
3	price based decision, and they were not excluded on
4	price. The reality is that Delta does not qualify to
5	bid on the range of transformers that were subject to
6	that alliance agreement.
7	So, number one, we need to be careful and
8	think about this not as a commodity, but as a
9	specialized piece of equipment that everyone
10	acknowledges that it is.
11	The second issue, and the second sort of
12	framing issue that troubles me, is this discussion of
13	a like product. In the petition and in the discussion
14	today, I think that it is very clever that the
15	Petitioners have said, look, we have three types of
16	transformers.
17	We have small transformers, and we have
18	medium transformers, and we have large power
19	transformers. The lingo that we are going to use for
20	our discussion is that it is going to take small power
21	transformers, and then combine that with medium power
22	transformers, and we are going to call that group
23	small power transformers.
24	And then when we talk to you about like
25	product issues, we are going to compare large power

transformers to small power transformers, but what they are doing is that they are taking large power transformers and they are comparing them to the very, very small power transformers that are at the opposite end of the spectrum.

6 What has been completely lost from their 7 discussion are the transformers in the middle; the 10, 8 the 20, the 30, the 40 MVA machines. There is no 9 bright line between the 60 MVA machine and the 40 or 10 50 MVA machine.

11 The reason and the way in which they try to 12 present that there is such a bright line is like 13 asking you to compare a 300 to a five. It makes 14 absolutely no sense.

So as you are thinking about that issue, I 15 would just ask you to be a little careful about the 16 terminology that they have used in their papers, 17 18 because it is very misleading, and it causes you to completely forget about all the transformers that are 19 actually in the middle that are very similar in terms 20 of their production, and sales channels, et cetera, to 21 22 what they are calling large power transformers.

Finally, we completely agree with Mr. Connelly that the like product issue is one which you should be grappling with at the final, if there is a

final. We don't think that is necessary. But for purposes of final, you guys should take these issues into account. That is the end of our presentation. Do we have addition time, Warren, and do you want to say anything?

MR. CONNELLY: No, we're done.

6

7 MR. MCCLURE: Okay. Thank you. First of 8 all, let me thank those of you who traveled from 9 further than the Washington suburbs to get here. We 10 appreciate you taking the time and your effort. I 11 want to start with our Investigator, Edward Petronzio. 12 MR. PETRONZIO: Good afternoon. I just want 13 to welcome everyone today. So, as with the

Petitioner, I am going to start off with some questions about data, and I will do the same here.

16 First of all, getting to this 300 MVA plus range of large power transformers, if you would write 17 18 in your post-conference brief the percentage, and I believe the way we framed this with the Petitioners 19 was 60 and below, and 60 to 300, an 300 and above, and 20 if you could both provide that information broken out 21 22 for your foreign production for the two firms, as well 23 as the importers over the periods, so that we can get a sense of where that product mix is. 2.4

25 Secondly, we have the issue of having to

1 rely on questionnaire data to supply a dataset for
2 imports, and to what extent you believe the
3 information on the record reflects all of the subject
4 imports on large transformers at this point, and if
5 you could comment on that?

6 MR. CONNELLY: Well, you know, I think that 7 there are only two sources of imports for Korea, and 8 so I think that you have got it.

9 MR. PETRONZIO: Okay. And as far as foreign 10 production in Korea, are there a number of other firms 11 that are producing for the Korean home market, or 12 exporting to other markets, that we should be aware 13 of, or is it pretty much the two firms?

14 MR. H. LEE: We agree that we and HHI are 15 the major firms.

MR. PETRONZIO: You spoke a bit about the Hyundai plant in Montgomery, Alabama, and that you would be focusing, or maybe it is the Petitioners who brought it up, but that the focus of that plant would be towards the small end, or towards the large end of the production?

22 MR. G. LEE: From 6 to 60 MVA. Annually, we 23 have the plant produce around 200 units of 24 transformers, whose average capacity is 60 MVA. 25 MR. PETRONZIO: So it is towards the small

1 end?

MR. G. LEE: Yes. 2 3 MR. PETRONZIO: Is there a reason as far as the --4 5 MR. G. LEE: It is from small and up to 300 MVA. 6 MR. PETRONZIO: So up to 300, but nothing 7 8 above 300? MR. G. LEE: Later there may be a 9 10 possibility that it may increase, but at this moment, 11 it is up to 300 MVA. MR. MORGAN: I just want to caution on the 12 In the sense that it is 300, that is a 13 numbers. reference to the base capacity, as opposed to the 14 maximum capacity, and depending on the specifications 15 16 and maximum capacity, it could be much higher than just 300, but that would be the base capacity level, 17 18 and we can elaborate on that. It is the base capacity, as opposed to the 19 maximum capacity, which is when you take into account 20 21 _ _ The capacity? 22 MR. PETRONZIO: 23 MR. MORGAN: Exactly. MR. PETRONZIO: And a 300 base rated MVA, 2.4 would that lead to a 600 top rating, or is that 25

1 double, or is that --

2	MR. H. LEE: 500 or 550.
3	MR. BOND: 500 or 550.
4	MR. MCCLURE: If I could jump in here and
5	talking about your arguments about what you are
6	primarily bringing in from Korea is about 300, and
7	then we had you saying that the U.S. industry isn't
8	producing much of that, and that they may be bringing
9	in above 300 from foreign facilities.
10	Is there a certain rationalization, a global
11	rationalization, among the global participants? I
12	mean, do the larger ones say they will be produced
13	overseas, or in the U.S., or vice versa, or is there
14	any operation that essentially produces one-stop
15	shopping, and you can get everything from 10 to
16	whatever?
17	MR. BOND: Do you mean within the Hyundai
18	Group, or just among the
19	MR. MCCLURE: Well, just in general. I
20	mean, in this industry, because we have got a lot of
21	global participants here, are they you know, if you
22	are producing above 300 there, and you can ship them
23	to the United States, or if you are producing the
24	smaller ones here, and you can ship them there, is
25	there some sort of rationalization in the way the

1 company is set up?

2	MR. NEAL: If I may, with regards to HICO
3	MR. MCCLURE: Right.
4	MR. NEAL: And I am only addressing as to
5	HICO, but our rationale is do you mean all small,
6	medium, and large transformers in the same factories?
7	Many companies have different approaches, and I am not
8	sure why, but I do know for us that our facilities are
9	essentially a one-stop shop.
10	MR. MORGAN: And our representative is here
11	from the sales arm of the U.S. production, and so if
12	we could with your indulgence handle that in our post-
13	conference brief?
14	MR. MCCLURE: Sure, and also any sense of
15	what Mitsubishi is going to be building in Memphis?
16	MR. MORGAN: Deirdre, do you have a sense of
17	that?
18	MS. MALONEY: From the information that I
19	saw, it was large power transformers, but we have some
20	information, and so we can give you that.
21	MR. MCCLURE: As we know, large is in the
22	eye of the beholder.
23	MS. MALONEY: Exactly. We can look further
24	at the information that we have.
25	MR. MCCLURE: And if the Petitioners have

any information or intelligence as to what the new construction around the various places is going to be, if you can tell me that, and I will shut up and let you move forward.

5 MR. PETRONZIO: Okay. So the focus again is 6 the capacity in Korea. Could you go into some detail, 7 and you can put it in the brief, as far as what that 8 capacity expansion entails, and are we talking about 9 larger equipment, and to expanding physically the 10 facilities, and adding on, or to what extent, et 11 cetera.

MR. PAIK: Okay. Henry Paik from HICO America. As we mentioned, all the capacity will remain as 45 thousand annual capacity, but we increase to about 75 to 79 thousand MVA per year. But that is probably the figure for the increase.

And as we mentioned in our testimony, we developed a lot of other market places, and so we need to serve the increase to our customers in other places besides the U.S. So we decided to increase in 2010.

21 MR. PETRONZIO: And how important is the 22 Korean home market for these products?

MR. PAIK: Oh, yes, it is still required andis the primary market.

25 MR. MORGAN: And if we could take up your

invitation, and if UPI would comment on that in the
 post-conference brief.

3 MR. PETRONZIO: Okay. And I have one final 4 question with regard to comments about what the 5 Commission generally does with average unit values, 6 and how we compare them.

7 There was some talk about looking at dollars 8 per MVAs is something meaningless given the product 9 range, and I am just curious as to your advice on what 10 the Commission should look at as far as making a value 11 comparison?

MR. CONNELLY: Well, ignore that averaging value. That has no relevance to what we are considering here. Frankly, we think that for these unique products that the right way to look at it is to look at bid situations at each utility.

Now, the allegations in Exhibit 8 to the petition, as far as we are concerned, have no validity whatsoever. They are value and general. I won't go into the details on why I make those claims, but the proof of the pudding is the purchaser information.

22 What are the purchasers telling you? This 23 is a little different from the average situation, 24 because typically there is not a purchaser 25 questionnaire obviously at the preliminary stage.

1 But here really what is going on I think is whether it is going to be validated or not validated 2 by what the purchasers are telling you, an what they 3 are saying about why they do what they do, and why 4 they buy from whoever their supplier happens to be. 5 So our position would be that that is where 6 That is how to analyze these things on a 7 to look. contract specific basis, but not on the basis of these 8 allegations because they are just inadequate. 9 You can't accept any of them, and I am sure 10 11 that is why you have gone out and asked purchasers to give you their own reactions. 12 MR. MORGAN: And we would agree with that. 13 The additional information that the Commission has 14 sought, in terms of the good information, I think that 15 was not wise decision to do that, in the absence of 16 any possible pricing comparison. That seems to be 17 18 what would be left. 19 MR. PETRONZIO: That's all I have. Thank 20 you very much. MR. MCCLURE: Mr. Yost, do you have any 21 22 questions? 23 MR. YOST: Yes, I do actually. Don't be so surprised. You know I am not a morning person. 2.4 I was

25 struck by, I think, Mr. Neal, where you were saying

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that you achieved much shorter lead times, and I am 1 wondering if that indicates that there are any 2 differences in the foreign production process, versus 3 the production process used by U.S. firms? 4 5 And if I am getting too much into the business proprietary information area, or you feel 6 that you might need several beers to answer this 7 8 question, then I encourage you to address it more fully in the post-conference brief. 9 But is there something in general where 10 11 there is a difference in the production process overseas, and what accounts for the shorter lead 12 times? 13 Fortunately or unfortunately, my 14 MR. NEAL: only time in this industry was with Tigress, and so I 15 don't have a lot of experience in this industry, but I 16 do know from customers that the manufacturing process 17 18 factors are very important, and can vary from supplier 19 to supplier. And specifically with regards to our lead 20 time, that is definitely something that we could 21 22 provide in the post-conference brief, and again that 23 is sensitive information that we can provide in our post-conference brief. 2.4 MR. YOST: I would encourage the 25

representative from Hyundai as well to address that. 1 MR. MORGAN: Certainly we will. 2 MR. YOST: And then there was the issue of 3 capital expenditures, and I think that Mr. Connelly 4 5 brought that up, as well as Ms. Maloney, and I would just simply note that often times capital expenditures 6 are entered into for plant expansion, or 7 modernization, or betterment of specific pieces of 8 equipment, many years in advance of the actual time 9 10 that the firm actually incurs the capital expenditure. 11 So perhaps rather than bringing them along 12 so to speak, and at a time when things were bad, and we had housing trouble back in 2006 and in 2008, this 13 may have encouraged companies to expand. 14 MR. CONNELLY: Well, I think that we would 15 agree with that. I think that it is fair to ask each 16 of the domestic producers when they made those 17 18 commitments, and in fact when they had made a 19 commitment. But let's just say that they quessed wrong, 20

and that they mis-timed the market as well, and that is not the fault of the Korean producers. We are all suffering because of that.

24 MR. BOND: In our case, Mr. Yost, the plant 25 was -- construction began in the middle of July, in

the middle of 2010, and so it has only been a year or so that we have been working on the plant, and it should be ready to produce soon. But this is not as if this was something that we were undertaking in 2008 or 2009.

6 MR. YOST: Okay. That's all I have. Thank 7 you very much.

8 MR. MCCLURE: Thanks for asking one of my 9 questions. Next is our attorney, Peter Sultan.

10 MR. SULTAN: I only have one question for 11 Mr. Connelly and Mr. Bond. Can you tell us exactly 12 how you define a like product?

13 MR. CONNELLY: No. I am going to be honest 14 with you. Frankly, we are not sure based on the 15 record there is today, but our position is going to be 16 that based on how the Petitioners have defined a like 17 product, we are willing to accept that for purposes of 18 the preliminary determination.

We will stake our case on their definition for purposes of a preliminary determination. We would like you to get more information, and we think that there have been sufficient issues raised about this here today.

24 But even accepting what they have defined, 25 it seems to us that there is no reasonable indication

of material of a like product. Now, if we get to a 1 final, and not when we get to a final, but if we get 2 to a final, I am sure that we will have a lot more to 3 say about it at that time. 4 5 MR. SULTAN: Thank you. Mr. Bond. MR. BOND: We agree completely, and most 6 importantly with the proposal that we end the case now 7 8 and proceed to a final to hash this out. MR. SULTAN: Thank you. That's all I have. 9 10 MR. MCCLURE: Next we have Mr. Workman. 11 MR. WORKMAN: I have a guestion, and maybe 12 it could be addressed in our post conference brief, about the share of the market involving public 13 utilities, as opposed to the others. 14 15 And you indicated, I think, that Korean producers compete less in this segment of the market 16 than domestic producers. I wonder if you might be 17 18 able to provide some information on this, on the share 19 of total sales going to public utilities. MR. BOND: Certainly from our perspective we 20 21 can. 22 MR. WORKMAN: That is the only question that 23 I had. MR. MCCLURE: Mr. Fravel or Mr. David. 2.4 25 MR. BOND: Can I just ask one clarifying

1 point?

MR. WORKMAN: 2 Yes. 3 MR. BOND: Do you mean specifically public utilities, as opposed to investor-owned, or do you 4 5 mean utilities versus --MR. MCCLURE: Yes. We would want both of 6 The share in them would be the same if we don't 7 them. 8 already have it from the Petitioners, you know, what share, and somebody had mentioned 80 percent of one, 9 and going into IOUs? 10 11 MR. MORGAN: Correct. 12 MR. MCCLURE: Do you have another definition of IOUs? 13 MR. MCCLURE: Again, I'm sorry for butting 14 15 in. Mr. Workman, anything else? If not, Mr. Fravel. 16 MR. FRAVEL: Yes. For Mr. Morgan. MR. MORGAN: Yes. 17 18 MR. FRAVEL: I believe you mentioned certain 19 physical constraints that factories might have that would limit them to producing a certain range of help 20 PTs, transformers, certain large power transformers? 21 22 MR. MORGAN: Un-huh. 23 MR. MCCLURE: Could you in your post-hearing brief be more specific as to what those parameters 24 would be, such as crane size, or physical dimensions, 25

or size of, and the other products that you mentioned? 1 MR. MORGAN: Certainly. 2 MR. FRAVEL: Just a question on materials. 3 Mr. Neal, does HICO purchase its grain oriented steel 4 5 outside of the company, or does it have a subsidiary that manufacturers that steel and gets it from an 6 affiliate? 7 8 And likewise, Mr. Bond, for Hyundai, does Hyundai have a brother company so to speak that it can 9 10 get the steel at a much lower price? 11 MR. NEAL: To my knowledge --12 MR. FRAVEL: You can add that in the posthearing brief. 13 14 MR. NEAL: Sure. Thank you. 15 MR. CONNELLY: Can I just add one thing that may be related to your question, which is that the 16 testimony from the Petitioners this morning about 17 18 locked in material prices, we will have an extensive 19 discussion on that issue in our post-conference brief. We have a different perspective with respect 20 21 to that, and we will address that in our post-hearing 22 brief. 23 MR. FRAVEL: Thank you. Mr. Bond, you mentioned that there are reliances, and you referenced 2.4 Delta Star saying that they didn't have the product 25

1 range possibly to be in that bid.

2	Could you elaborate more on what size of
3	large transformers the company might have in order to
4	be in one of those long term contracts? Would it be
5	to produce 900 at the lower end, and capable of going
6	all the way up to the ones that I are going to step
7	right up and into your power plants? You can do that
8	in the post-hearing brief if you would like, and just
9	to fill out the details.
10	MR. BOND: We will do that in the brief, and
11	fill in the specifications that are required.
12	MR. FRAVEL: And my last question before
13	Andy gets a chance is that typically in a given year
14	how many bids, or how many opportunities in the United
15	States might there be for selling, and for a customer
16	wanting to buy transformers for the top rated 300 MVA,
17	and likewise maybe for over 400 MVA, or 500?
18	If those are very rare opportunities, then I
19	think that would shed some light on the market. I
20	mean, if you only have one or two come up in a year
21	typically, and it might come up as things wear out, or
22	new generation plants come on, but if you could shed
23	some light on to how that might be, that might talk to
24	the issue of maybe global rationalization of
25	production for costly units.

1 MR. CONNELLY: I think we need to provide that in our post-conference brief. I think that 2 3 involves a little bit of commercial intelligence with respect to that. 4 5 MR. FRAVEL: Okay. MR. CONNELLY: But we can give you that 6 information. 7 8 MR. BOND: And we will do the same. MR. FRAVEL: I have no further questions. 9 10 MR. MCCLURE: Andrew. 11 MR. DAVID: I have just a couple of questions. Mr. Neal, I was wanting to find out that 12 as a manufacturer of both shell and core form 13 transformers, how do you see the markets for those? 14 15 Do you see them as the same product or do you have different applications that would use a shell 16 form versus a core form, and do you see a difference 17 18 between those products and the applications of them? Isn't it timely? You see the 19 MR. NEAL: same debate that we saw this morning between folks 20 about the shell form and the core form, and that's 21 22 what we see inside our company. 23 There is certainly a market for shell transformers and specific applications, and there is 2.4 certainly customers that require shell form 25

transformers on bid, or will give preferential
 treatment to a shell form.

3 MR. CONNELLY: I think that is an important 4 point with the difference with the Petitioners this 5 morning. What we heard was that in the vast majority 6 of instances with the Petitioners, they believe that 7 either one will do.

8 It may be the case, however, that there was 9 a preference to one or the other. That can give you 10 an edge if you are a shell marketer.

11 MR. DAVID: And my second question has to do 12 non-subject producers, and I believe Brazil and Mexico 13 were mentioned as among the non-subject producers in 14 the U.S. market. Are there any emerging countries 15 that are producing supply in the market, in terms of 16 China, India, or any other countries that are emerging 17 as suppliers in the U.S. market?

18 MR. NEAL: Yes, sir. There is significant 19 competition that is coming from China, Taiwan, India, 20 as well as Western Europe. It is truly a global 21 market, and there are lots of countries that are 22 participating.

23 MR. MCCLURE: And are they in that 300 MVA24 and above segment as well?

25 MR. NEAL: There are several. There are

some with 300 and below, and there are some like us 1 that handle all from one facility. 2 MR. DAVID: Okay. I have no additional 3 questions. 4 5 MR. MCCLURE: Okay. I think that Mr. Yost has one question. 6 MR. YOST: Could you substantiate the 7 8 customers in your post-conference brief, and provide the names of customers that provided that preferred 9 shell form? 10 11 MR. NEAL: Sure. MR. YOST: And the bids, and if it is 12 applicable, the bids on which they stated that 13 preference. Thank you. I have no further questions. 14 MR. MCCLURE: Okay. Let me ask since we 15 16 have discussed lead times, let me get back to my little sheet that the Petitioners provided this 17 18 morning. 19 To get here from the time that you get the 20 request for bid, and get here for these two companies, and without -- and just give me a generic answer, and 21 22 if you want to get more specific in the post-23 conference brief, how long does it take you to get from that request to testing? 2.4 25 MR. BOND: The testing phase?

1 MR. MCCLURE: Yes. I think I heard seven months this morning. 2 3 MR. BOND: From the bid to the testing phase. 4 5 MR. H. LEE: Twelve months. Maybe it takes two months to receive and process the order, and then 6 from that time, we believe 10 months. 7 8 MR. MCCLURE: No, I'm not talking about delivery, but sort of getting it to testing, and 9 10 design, and getting it to testing. 11 MR. H. LEE: Maybe eight months. MR. MCCLURE: Eight months? 12 I think it would vary, and when 13 MR. NEAL: the purchaser issues the request to us, and it could 14 range anywhere from 6 to 8 months, and 12 to 16 months 15 16 depending on the size of the transformer. MR. MCCLURE: Okay. I was just trying to 17 18 raise the figure in the lead time, and that it was mentioned that in 2010 there was a lead time issue for 19 20 you, too, temporarily. MR. H. LEE: Yes, because we got a lot of 21 22 orders at that time, and maybe from 2007 to 2009, and 23 at that time, our lead time was extended up to 20 months or 22 months at that time. 2.4 MR. MCCLURE: And was that a lot of orders 25

1 across the board, including stuff shipped to the home 2 market, or just stuff shipped to the U.S., or other 3 foreign markets?

MR. H. LEE: Because of the number of orders that were increased for our company, but the other issue that we had was the component suppliers during this time was extended, and like for the type of machine, or type changer, those are the major components for the transformer.

But normally the lead time from bid was normally to 8 months, but it was extended to sometimes maybe 16 months or 18 months, and that is why we put in our proposal transporting time was 20 months or 22 months.

MR. BOND: And in addition to having a lot of orders in 2007 and 2008, there were suppliers of components for bushings, stat chains, et cetera, were very slow in delivery, which caused us to extend our delivery times out to 20 months, et cetera.

20 So that the imports of those machines that 21 were received in 2007 and 2008 weren't arriving here 22 in the United States until late 2009 and late 2010. 23 MR. MORGAN: But that was not the norm is

24 the other point. That is not our normal lead time.
25 It was a very unusual situation.

1 MR. MCCLURE: You mentioned that in the U.S. 2 industry that on the large items a lack of testing 3 capacity, and crane capacity, and vapor phase run 4 capacity, are you just saying that they absolutely 5 don't have it, or that it is so limited as to perhaps 6 render if a bit considerably difficult to then produce 7 the larger ones above 300, let's say?

8 MR. MORGAN: Just so we are clear, there are 9 really two components to a transformer. There is the 10 MVA rating, which is the capacity, and then there is 11 the voltage that it can actually handle.

And on the MVA capacity side of the equation, you have got the cranes, because they have got to be able to support a certain load in order to lift it as it is being moved through the facility, and the facility design, and space, and the number of dryers, and those all go to the MVA side.

So it is not a bright line on that, but there are limits, and there gets to be points where it is not economically feasible to be producing larger sizes, and there are certain things that would limit our ability to do it at all.

But on the testing side, and that goes to the voltage, where you literally have these gigantic pieces of equipment that look like something out of

Frankenstein's laboratory, they literally create the
 impact of a lightening strike on the transformer to
 test it.

Because that is part of the specification that you give, and that it has to be tested at a certain rating or voltage level, if you don't have the equipment at that level, then you can't provide that equipment.

9 And our understanding is that there are 10 definite cutoffs and that certain U.S. producers 11 cannot produce -- well, what is the line that we 12 discussed? It was above 345 kilovolts?

13 MR. H. LEE: Over 345.

MR. BOND: Over 345 kilovolts, and our understanding is that no U.S. producer has the testing equipment to do that kind of transformer.

MR. MCCLURE: Why is it when you talk of creating a lightening strike that I get a picture of Gene Wilder's hair?

20

(Laughter.)

21 MR. BOND: Just one quick comment. I think 22 your comment this morning, Warren, is a good one, that 23 it is not necessarily about what you have the capacity 24 to produce. It is about what you are actually 25 producing and selling, which are two very different

1 things.

2	MR. MCCLURE: Yes, and you mentioned the
3	SOCAP(Ph.), and part of the reason you got it was
4	because you could provide a greater variety of
5	transformers or sizes anyway, and in the post-hearing
6	brief, if you could just let us know what the variety
7	was.
8	And with that, unless the Staff has any, I
9	have no further questions, and I want to thank you. I

10 think it was a very useful conference. Again, I 11 apologize for the facilities. But, anyway, we will 12 now take a five minute break, and we have how much 13 time left? Oh, you get 10 minutes each. And if it 14 goes over to 11, we will use a large transformer and a 15 lightening strike. All right. We will start back at 16 1:30.

17 (Whereupon, at 1:25 p.m., the conference was
18 recessed, and was again called to order at 1:31 p.m.)
19 MR. MCCLURE: All right. Mr. Luberda.

20 MR. LUBERDA: I would like to start on the 21 happy news that the Commerce Department has initiated 22 an investigation, and so maybe that is part of why the 23 Dow is up.

For the record, I am Alan Lumberda on behalf of the domestic large power transformer industry. I

1 am very pleased to hear from the Respondents that they 2 are not challenging, at least at this point, our like 3 product.

We thought it was logical to put evidence on 4 5 the record in support of it, and I am not sure -- I heard a lot of different like product arguments coming 6 out of the Respondents today, and one of the 7 8 Respondents seemed to be arguing that the cutoff should be 10 and up, and one seemed to be arguing that 9 large was a hundred and up, and everybody then was 10 11 saying that perhaps there was another market at 300.

We think that we have defined it right. We are happy that we don't have to argue too much about this with them, and we are obviously staking our case on this as well.

16 It was interesting to hear the Respondents 17 testify on how mystified they were that the 18 Petitioners had accused them of unfair pricing. To 19 hear them tell it, they never see us in the market 20 place, and we are ships passing in the night.

They are not the low priced guys, and they are not setting the price, and they would never trade unfairly. But what we have seen in the market is that they undersell us at 30 percent or more on a frequent basis.

No Respondent comes to one of these things and says that it was price. That's all it is, is price. You never hear that. And you heard that again today, but I am telling you that it is price, price, and price.

6 We compete head-to-head with them all the 7 time across our product ranges, and to hear them talk, 8 you would think that everything that they made was 9 over 300 imported, but in fact, we see them everywhere 10 in our market, above 300 and below 300.

And by the way, we make product above 300, and you saw a picture of one there. You heard Dennis say from Pennsylvania Transformer, and you heard him testify that they have them on the shop floor now, and we would certainly disagree with them about testing in the United States, and we will give more information on that in our post-hearing brief.

We go to these bids, and we meet the lead times that the customer wants, and we meet the specs. We are qualified by them to bid on the project, and ask to bid, and where we lose a sale, we lose it on price.

It doesn't matter whether you are talking about the evaluated price or the base price. If they have a lower base price, and they have a lower

evaluated price, and we lose. It is price, and in the end the thing that is differentiating the domestic industry from the Korean industry most is price, and that is why we are losing sales, and that is why we are losing these blanket agreements.

And the Koreans have admitted that they 6 think that they have got \$600 million worth of 7 8 business wrapped up with Southern California Edison, and there were qualified bidders from the domestic 9 10 industry, and we will give you more details on that, 11 and talking to them, and talking to Southern California Edison, and bidding on that business, we 12 lost, and it is clear to us why we lost. 13 The price.

14 So this case isn't about -- we heard 15 testimony about all the future optimism in the market. 16 This case is not about the future. It is about right 17 now. It is about what happened in the last three 18 years, and it is not what is happening in the market 19 right now.

And you have the 800 pound gorilla in this market in the Korean producers. They have a dominant market share, and they have been growing that market share. They have been underselling, and the evidence will show that they have been underselling.

25

And look at the financial performance of the

industry, and as the Koreans have grown, and as they
 have intensified their underselling, the financial
 performances declined, and it has declined
 significantly.

5 It is very difficult to see how the Koreans 6 on the record are going to be able to argue 7 successfully that this industry is not competing with 8 them, and it is not losing sales to them on price, and 9 is not being harmed last year, this year, on the basis 10 of these low cost sales that are dumped in this 11 market, and is profit initiated.

So we are confident on what the record will hold, and we ask that the Commission find that this industry, that there is a preliminary indication that this industry has been injured or threatened with injury.

We think it is contrary to Mr. Connelly's
description, and that there is a very strong case on
the record. Thank you.

20 MR. MCCLURE: Thank you. Mr. Connelly or21 Mr. Morgan.

22 MR. MORGAN: Well, it will be brief. 23 MR. CONNELLY: Exactly. On the like product 24 issue, we certainly don't retreat from what we said 25 earlier, but they have drawn the line at 60. Why 60?
1 Why not 50? Why not 70?

2	There is no rationale, except there is some
3	convenience in there for them, but here is the more
4	important thing. They knew well in advance of this
5	conference that our position was that there was little
6	or no domestic production over 300 MVA and 345 kV.
7	They knew this well in advance, because we raised this
8	issue in our Commerce Department's submission.
9	So what was the testimony that we heard
10	today? It was faint. It was weak. It was vague. I
11	would have thought if I were going to come in here and
12	make a contention as the domestic industry, as the
13	Petitioners, that we produce at the 300 MVA and 345 $\rm kV$
14	level, I would have come in and said, look, this is
15	how many units we have sold in the last 3-1/2 years
16	for the domestic industry.
17	That would not have involved APO
18	information, and they could have come in and said it,
19	and that would have proved just how much they compete,
20	or maybe it wouldn't have, and I suspect that it is
21	the latter, and that is why we didn't hear about it.
22	And that really is our them here. There is
23	attenuated competition, and there is a huge segment of
24	business out there where the domestic industry as a
25	practical matter is not competing.

We are not saying that there is no competition. No one would ever say that, and we are not saying that there is no price competition, but that is not enough to get an affirmative determination from the Commission.

6 There has got to be substantial evidence, 7 and we will stand behind our position that there is 8 not substantial evidence of significant head-to-head 9 pricing by the Petitioners. Thank you.

10 MR. MORGAN: The words that I would like to 11 leave you with is follow the money. That famous 12 advice to Bob Woodward during the Watergate 13 investigation, which may or may not have been 14 fictional, is real and meaningful in this 15 investigation.

Why would so many companies, and not just Hyundai, all choose to invest in a market that is being devastated by import competition? Why would the Korean industry make such a significant investment in the U.S. market only to see it diminished by lower prices?

And why would market participants with such long standing suddenly, and without any explicable reason, begin an aggressive pricing campaign? It doesn't add up.

1 What fits with the record evidence is that 2 the Korean power transformers and the U.S. made 3 products largely do not compete. Korean power 4 transformers are largely the high capacity, high 5 voltage end of the market, and U.S. producers largely 6 are not.

The whole nature of the one round bidding 7 8 process, and the lack of full transparency and pricing among competitors, and the number of factors other 9 than price that affect who the winning bidder will be 10 11 all suggests that direct competition is limited. This is not a typical case, and it should end now. 12 Thank 13 you.

Okay. This finishes things, 14 MR. MCCLURE: and on behalf of the Commission and the Staff, I would 15 like to thank the witnesses that came here today, as 16 well as counsel, for helping us gain a better 17 18 understanding of the product and conditions of 19 competition in the large power transformer industry. Before concluding, I want to remind you of a 20 21 few dates that you will be facing. The deadline for 22 submission of corrections to the transcript and for 23 submission of the post-conference briefs is Tuesday,

the 9th of August.

25 If briefs contain business proprietary

information, a public version is due on Wednesday, August 10th. The Commission has tentatively scheduled its vote in this investigation for Friday, August 26th, and it will reports its determinations to the Secretary of the Department of Commerce on Monday, August 29th. The Commissioner's opinions will be transmitted to the Department of Commerce on Tuesday, September 6th. Thank you all for coming, and this conference is adjourned. (Whereupon, at 1:40 p.m., the preliminary conference in the above-entitled matter was concluded.) //

CERTIFICATION OF TRANSCRIPTION

- TITLE: Large Power Transformers from Korea
- **INVESTIGATION NO.:** 731-TA-1189 (Preliminary)
- HEARING DATE: August 4, 2011
- LOCATION: Washington, D.C.
- NATURE OF HEARING: Preliminary Conference

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: <u>August 4, 2011</u>

SIGNED: LaShonne Robinson Signature of the Contractor or the Authorized Contractor's Representative 1220 L Street, N.W. - Suite 600 Washington, D.C. 20005

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SIGNED: <u>Gabriel Gheorghiu</u> Signature of Court Reporter