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OCC EXHIBIT NO. _____

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of Ormet)
Primary Aluminum Corporation for)
Approval of a Unique Arrangement with) Case No. 09-119-EL-AEC
Ohio Power Company and Columbus)
Southern Power Company.)

**DIRECT TESTIMONY
of
AMR A. IBRAHIM**

**ON BEHALF OF THE
OFFICE OF THE OHIO CONSUMERS' COUNSEL**
10 West Broad St., Suite 1800
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April 27, 2009

PUCO

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EXHIBITS

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I. INTRODUCTION

Q1. PLEASE STATE YOUR NAME, ADDRESS AND POSITION.

A1. My name is Amr A. Ibrahim. My business address is 10 West Broad Street, Suite 1800, Columbus, Ohio, 43215. I am employed by the Office of the Ohio Consumers' Counsel ("OCC" or "Consumers' Counsel") as a Senior Regulatory Analyst.

Q2. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A2. I received a B.A (Accounting) from Cairo University in 1975, M.A (Economics) from the American University in Cairo in 1981, and a PhD (Economics) from the University of Sussex, UK, in 1988. I am a member of the International Association of Energy Economics ("IAEE"). Prior to joining OCC in October of 2008, I worked as an independent Consultant with several entities in the US and overseas. Further, I have worked for four years (2002 – 2006) as a Senior Analyst, Market and Regulatory Practices, for the Independent System Operator of New England ("ISO-NE"). Additionally, I was a Manager, then a Director, Regulatory Affairs in Enron Corporation from 1997 to 2001. I was also a Senior Rate Policy Analyst with BChydro (British Columbia, Canada) from 1990 to 1997 in which I performed cost of service studies, and rate design.

1 **Q3. PLEASE DESCRIBE YOUR EXPERIENCE.**

2 **A3.** I have worked for several years in rates and cost of service studies analysis during
3 which I was involved in providing technical and analytical support regarding
4 various rate and cost of service filings. Part of this work involved reviewing the
5 applicability of what was commonly referenced at that time (1990 – 1995) as
6 “innovative rate designs” like voluntary and non-voluntary curtailable load tariffs,
7 standby and backstopping rates, wheeling rates, green rates, and economic
8 development initiatives. I performed similar work (e.g., conducting fully
9 allocated cost of service studies, and rate design) for systems outside North
10 America in the course of working for Enron Corporation and as a consultant.

11
12 Additionally, since joining OCC as a member of the Analytical Services
13 department, I have provided an affidavit in the FERC Docket Nos. ER09-134-
14 000, *et al.* which provided information on the status of competitive electricity
15 service and government aggregation in the state of Ohio.¹ I also became
16 responsible for providing technical support to formulate the OCC position with
17 respect to some of the recent requests for Economic Development and Unique
18 Arrangements filed before the Public Utilities Commission of Ohio
19 (“Commission” or “PUCO”).²

¹ *First Energy Solution Corp., et al.*, Docket Nos. ER-09-134-000, ER09-135-000, ER09-136-000, and ER09-137-000, Affidavit of Amr A. Abriham (November 14, 2008).

² For example, the Application of National Aeronautics and Space Administration at Glenn Research Center to Establish a Reasonable Arrangement with The Cleveland Electric Illuminating Company and FirstEnergy Corporation for Electrical Service (Case 09-91-EL-UNC), the Application of the Cleveland Board of Education for the Cleveland Municipal School District to establish a Reasonable Arrangement with the Cleveland Electric Illuminating Company for Electric Service (Case 08-1238-EL-AEC), and the Application for Establishment of a Reasonable Arrangement Between The Ohio Edison Company and V&M Star (Case: 09-80-EL-AEC).

1 ***Q4. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE THE***
2 ***PUBLIC UTILITIES COMMISSION OF OHIO?***

3 ***A4.*** Yes. I have submitted written testimony before the PUCO in Case No. 08-1094-
4 EL-SSO, et al. The testimony addressed economic development riders and the
5 treatment of aggregation.³

6
7 ***Q5. WHAT DOCUMENTS HAVE YOU REVIEWED IN THE PREPARATION OF***
8 ***YOUR TESTIMONY?***

9 ***A5.*** I have reviewed the Application of Ormet Primary Aluminum Corporation
10 ("Ormet") for Approval of a Unique Arrangement with Ohio Power Company and
11 Columbus Southern Power Company (collectively "AEP-Ohio") filed with the
12 PUCO on February 2, 2009, as well as the amended application filed on April 10,
13 2009. I have also reviewed the direct testimony of Ormet Witnesses Tanchuk,
14 Coomes, Fayne and Riley, and the Company's responses to OCC discovery as
15 well as the discovery responses of both Columbus Southern Power Company and
16 Ohio Power Company. I am also familiar with OAC 4901:1-38 as adopted in the
17 Commission's February 11, 2009 and March 18, 2009 in Case No. 08-777-EL-
18 ORD.

³ In the Matter of the Application of the Dayton Power and Light Company for Approval of Its Electric Security Plan (Case No. 08-1094-EL-SSO, et. al.) January 26, 2009.

II. PURPOSE OF TESTIMONY AND RECOMMENDATIONS

Q6. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A6. My testimony pertains to Ormet's application for approval of a Unique Arrangement with AEP-Ohio. I performed an analysis of the structure of the Unique Arrangement as filed in the amended application on April 10, 2009 and estimated the cost to Ohio residential customers associated with it.

Q7. WHAT IS YOUR RECOMMENDATION?

A7. I recommend that the PUCO deny the request to approve Ormet's Unique Arrangement with Ohio Power Company and Columbus Southern Power Company as filed with the Commission on April 10, 2009. The requested Unique Arrangement is not reasonable because Ohio customers are likely to bear considerable financial cost associated with the recovery of delta revenue and bear disproportional and asymmetrical risks that are related to the variation in the price of aluminum in the international markets.

**III. ORMET PRIMARY ALUMINUM CORPORATION'S APPLICATION
FOR APPROVAL OF A UNIQUE ARRANGEMENT WITH OHIO
POWER COMPANY AND COLUMBUS POWER COMPANY**

Q8. PLEASE DESCRIBE ORMET'S FEBRUARY 17, 2009 APPLICATION.

A8. On February 17, 2009, Ormet filed its first application seeking the Commission's approval for Unique Arrangement under which Ohio Power Company and

1 Columbus Southern Power company ("AEP-Ohio") would provide electric
2 service with an effective date of January 1, 2009. For 2009--because Ormet has
3 sold forward its 2009 metal production at a fixed price in order to secure its
4 revenue for that year⁴--Ormet shall pay an "all-in-rate" of the lesser of
5 \$38.00/MWh or the AEP-Ohio Tariff Rate for 2009.⁵ For the subsequent years
6 from 2010 through 2018 (i.e. the tenure of the Unique Arrangement is 10 years),
7 the Ormet rate will be determined based upon schedules filed with the PUCO on
8 an annual basis prior to the year in which the subject rate would be in effect. The
9 filing will set fourth an Indexed Rate and a Target Rate.⁶ The Indexed Rate would
10 be the rate schedule in \$/MWh that Ormet could pay "that would produce the
11 minimum cash flow necessary to sustain operations and pay its required legacy
12 pension costs depending upon the LME [*London Metal Exchange*] price of
13 aluminum".⁷ The Target Price will be the price of aluminum as reported on the
14 LME at which "Ormet would be able to pay the AEP-Ohio Tariff Rate and still
15 maintain the minimum cash flow necessary to maintain its operations and pay its
16 required legacy pension costs."⁸

⁴ See "Application of Ormet Primary Aluminum Corporation for approval of Unique Arrangement with Ohio Power Company and Columbus Southern Power Company", February 17, 2009 at 5.

⁵ As defined by Ormet, the AEP Ohio Tariff Rate for 2009, means "the applicable tariff and riders, defined in terms of \$/MWh, as approved from time by the commission for the total cost of energy delivered, including all generation, distribution, transmission, customer and rider charges, existing and implemented during the term of this Power Agreement, that would otherwise be applicable to Ormet. At the outset, it will be determined by taking the sum of what Ormet would pay if fifty percent of its load were billed under the applicable Ohio Power Co. Tariff and the other fifty percent of its load were billed under the applicable Columbus Southern Power tariff". See *Id.* at 5, footnote 8. The responses of both Columbus Southern Power Company and Ohio Power Company to OCC interrogatory 1 indicated that the applicable tariffs are those demonstrated in GS-4 schedules.

⁶ *Id.* at 5.

⁷ *Id.* at 6.

⁸ *Id.* at 6.

1 When the LME aluminum price is greater than the Target LME price but by not
2 more than \$300 per ton, then Ormet shall pay 102% of the AEP Ohio Tariff Rate.
3 Ormet shall pay 105% of the AEP Ohio Tariff rate when the LME aluminum
4 price is greater than the Target LME price by more than \$300 per ton. On the other
5 hand, if the LME price is less than the Target LME Price, Ormet shall pay the
6 AEP-Ohio Tariff Rate minus \$0.049/MWh for each \$1/ton less than the Target
7 LME price.⁹ For 2010, Ormet has proposed a Target LME Price of \$2725 (based
8 on AEP-Ohio Tariff Rates in Effect as of February 1, 2009) and \$3031 based on
9 Proposed Rates in AEP's Electric Security Plans (08-917-EL-SSO and 08-918-
10 EL-SSO).

11
12 ***Q9. PLEASE DESCRIBE ORMET'S AMENDED APPLICATION***

13 ***A9.*** The amended application—filed on April 10, 2009—is similar to the first
14 application. The first application envisaged full operation of 6 potlines that would
15 use approximately 540 MW (at load factor of 0.985) for which it shall pay in 2009
16 an all-in-rate of the lesser of \$38.00/MWh or the AEP Ohio Tariff Rate for
17 2009.¹⁰ In the amended application Ormet envisages the possibility that it may
18 reduce its operation for part of the period in 2009. In case Ormet reduces metal
19 production by the equivalent of at least two potlines, Ormet's rate will be reduced
20 to an all-in rate of the lesser of \$34.00/MWh or the AEP-Ohio Tariff Rate for the
21 balance of 2009, or the duration of the curtailment, whichever is shorter.¹¹ In the

⁹ See *Id.*, Attachment A, Schedules A and B.

¹⁰ It follows that at full operations, Ormet's MWh use shall be $540 \times 0.985 \times 8760$, or 4,659,444 MWh.

¹¹ See "*Amended* Application of Ormet Primary Aluminum Corporation for approval of Unique Arrangement with Ohio Power Company and Columbus Southern Power Company", April 10, 2009 at 5.

1 cover letter of the amended application, Ormet's counsel E. Hand explained that
2 this reduction in the all-in rate to \$34.00 MWh is necessary to retain at least 900
3 jobs at the facilities.

4
5 At full operation, Ormet's facilities employ approximately 1,000 employees with
6 wages totaling approximately \$56 million.¹² It is important to highlight that only
7 60% of Ormet's labor force are residents of the State of Ohio (i.e., 598
8 employees), and the remaining 40% are residents of West Virginia and
9 Pennsylvania.¹³ Arithmetically speaking, only \$34 million of the \$56 million in
10 wages are related to the residents of the state of Ohio.

11
12 ***Q10. PLEASE STATE YOUR UNDERSTANDING OF AEP-OHIO'S POSITION***
13 ***TOWARDS THE AMENDED APPLICATION FOR UNIQUE***
14 ***ARRANGEMENT***

15 ***A10.*** Ormet's Application expresses the understanding that AEP-Ohio is supporting the
16 proposed Unique Arrangement (at least as first filed on February 17, 2009) on the
17 condition that AEP is granted permission by the Commission for a rider to
18 recover from other customers all revenues lost (i.e., delta revenue) by entering
19 into this Unique Arrangement with Ormet.¹⁴ Ormet's understanding is supported
20 by AEP-Ohio's response to OCC Int-16 which states "The companies [*Columbus*
21 *Southern Power and Ohio Power*] to be a party to this proposed contract is

¹² Id, at 3.

¹³ See direct testimony of Dr. Coomes, filed on April 23, 2009, Exhibit ORM-5 at 5.

¹⁴ Id, at 8.

1 conditioned on its recovery of 100% of delta revenues. ...” It is noteworthy that
2 Ormet supports the AEP-Ohio request for recovery of lost revenues in recognition
3 “that AEP Ohio must remain financially strong to ensure it continues to have the
4 ability to satisfy Ormet’s load requirements.”¹⁵ Ormet asserts that its application
5 provides “some” balance to AEP-Ohio customers when aluminum prices rise
6 above the Target Price as it agrees to pay a premium of either 2% or 5% over the
7 applicable tariff rate, allowing other AEP-Ohio customers to share in the benefit
8 of rising aluminum prices.

9
10 As will be discussed below, while AEP-Ohio is assured the full recovery of the
11 lost revenues under all circumstances, its customers—including residential
12 class—will subsidize Ormet’s power costs and will only benefit, if-and-only if,
13 the aluminum price is equal or greater than the Target Price—then only by 2% to
14 5%. The application did not acknowledge the huge and completely asymmetrical
15 risks that the customer classes will see as a result of the cost of the requested
16 Unique Arrangement when LME aluminum prices are lower than the Target
17 Price. This is likely to exceed, by a lot, 100% of the total wages Ormet pays to its
18 Ohio, West Virginia and Pennsylvania employees of \$56 million.

¹⁵ Id, at 8.

**Q11. DID THE APPLICATION PROVIDE ESTIMATES FOR THE REVENUE
AEP-OHIO WOULD LOSE AS A RESULT OF THE REQUESTED UNIQUE
ARRANGEMENT FOR A DISCOUNT FOR ORMET?**

A11. The applications, the first and the amended, did not provide estimates for the revenue lost (delta revenue) that may accrue from the Unique Arrangement. Ormet's response to OCC Int-5 did not provide any estimates either.¹⁶ As an indication of the historical cost of the arrangement with Ormet, AEP-Ohio stated in its response to OCC Int-5, that the delta revenue was \$44.4 million in 2008. This delta revenue in 2008 is 79.2% of the total wages paid by Ormet to its employees.

**IV. ESTIMATES COULD BE SUBSTANTIAL FOR THE DELTA REVENUE
OTHER CUSTOMERS WOULD PAY AS A RESULT OF THE
REQUESTED UNIQUE ARRANGEMENT FOR ORMET**

**Q12. IS IT POSSIBLE TO PROVIDE AN ESTIMATE FOR THE MAGNITUDE
OF DELTA REVENUES THAT WOULD RESULT FROM THE
REQUESTED UNIQUE ARRANGEMENT?**

A12. Yes. Taking year 2010 as an example, and following the filed Schedule in the application, Ormet will pay an indexed price that would be equal to the AEP-Ohio Tariff Rate (using \$38.43/MWh the price in effect as of February 1, 2009)¹⁷

¹⁶ See Ormet Primary Aluminum Corporation Responses to the Office of the Ohio Consumers' Counsel First Set of Interrogatories and Request for Production Documents, April 3, 2009 at 7.

¹⁷ This estimate for delta revenue uses the AEP Ohio Tariff Rate in effect as of 2/1/2009 and not the proposed rates in the AEP's Electric Security Plans ("ESP") of \$53.51/MWh. Using the proposed rates in the ESP would produce much higher estimates of the delta revenues that other customers would pay.

1 minus \$0.0490 for each \$1/ton less than Ormet's Target London Metal Exchange
2 Price ("LME") which is set at \$2725 per ton.¹⁸ In case that LME Price is greater
3 than the Target Price by less than \$300, Ormet shall pay 102% of the AEP-Ohio
4 Tariff Rate (i.e., \$38.43/MWh). In case that LME Price is greater than the Target
5 Price by more than \$300, Ormet shall pay 105% of AEP-Ohio Tariff Rate.

6 Before any possible delta revenue could be estimated for 2010, it is clear that any
7 price published by the LME of less than \$1941 per ton shall result in zero
8 price/MWh for Ormet.¹⁹ Stated differently, Ormet would be receiving "free"
9 electricity under that circumstance, but the electricity would not be free to the
10 customers who will be asked to pay Ormet's discount. Ormet would be in such
11 case passing the entire cost of electricity use to all other customers of AEP-Ohio,
12 including residential customers. The total annual cost of the proposed Unique
13 Arrangement in such eventuality at full operation would be a staggering \$179
14 million annually.²⁰ This delta revenue to be paid is 3.2 times the annual wage bill
15 paid by Ormet to its 1000 employees (of whom 40% are residents in other states).

16
17 It is important to highlight that the \$179 million is not an unrealistic estimate for
18 the 2010 delta revenue calculation; LME prices for aluminum have been less than
19 \$1941 since mid November 2008. For close to 5 months, Ormet's index price—
20 had the Unique Arrangement been in effect—would have indeed been zero, if not
21 negative. Exhibit AAI-1 demonstrates aluminum prices (cash and seller settlement

¹⁸ See Amended Application (April 10, 2009) at Attachment A, Schedule A, p. 1.

¹⁹ $[(\$2725 - \$1941) * 0.049] - \$38.43 = \text{zero}$. Id., at Attachment A, Schedule A, p. 1, Notes: 2.

²⁰ Calculated from multiplying full operation load of 540 MW x 0.985 x 8760 (number of hours per year) x \$38.43/MWh.

1 for Aluminum) over the period January 1, 2000 through March 31, 2009 as
2 compiled from the database of London Metal Exchange.²¹ LME prices were never
3 above the \$1941 level in 2000, 2001, 2002, 2003, 2004 and most of 2005. LME
4 prices have also been well below \$1941 per ton since mid November of 2008 and
5 for the first quarter of 2009.

6
7 Furthermore, if this formula is to be applied for an average monthly LME prices
8 similar to those of the three months of January – March 2009, the Ormet
9 Aluminum Electricity Rates for 2010 would be a negative \$28.46/MWh. This
10 negative price is the direct application of the indexed Ormet rate using the
11 average “Cash Seller and Settlement” prices for aluminum of \$1413.12, \$1330.20,
12 and \$1335.84 for January, February, and March, 2009, respectively.²² It seems
13 inconceivable—unless there is a floor which the indexed price can not go—that
14 Ormet should be allowed to pass the cost of its entire electricity use onto other
15 customers, let alone at negative rates.

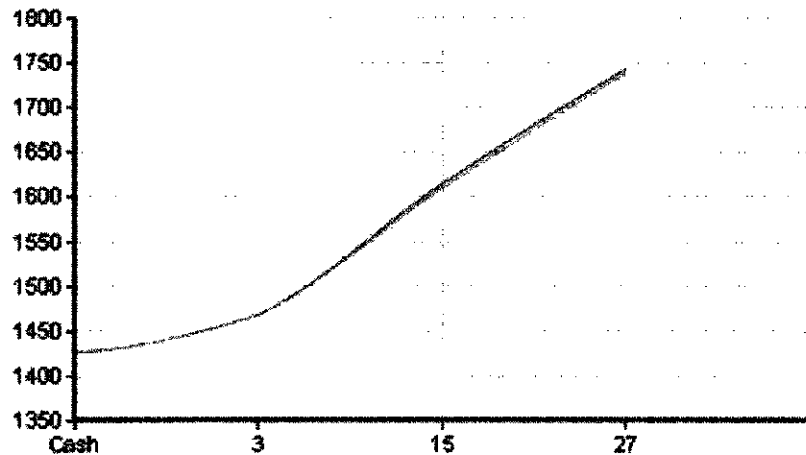
16
17 The continuity of the above averages for 2010 is a realistic assumption as
18 indicated by the future seller prices for aluminum published by LME on April 23,
19 2009, Figure 1 below. The figure demonstrates the future bid and offer seller
20 prices for Aluminum for 3, 15 and 27 months indicating that future prices for 27
21 months period (\$1750 per ton) is still \$200 short of the \$1941 at which Ormet's

²¹ See https://secure.lme.com/Data/community/Dataprices_pricegraphs.aspx.

²² See http://www.lme.com/dataprices_historical.asp. The average of the three months is \$1,359.72 per ton.

indexed price for electricity would be \$0/MWh. At these future prices for the coming 27 months, the indexed electricity price for Ormet will be negative.

Figure 1: Future Seller prices for Aluminum on April 23, 2009.



Source: <http://www.lme.co.uk/aluminium.asp>

Q13. IS THERE A PREDETERMINED FLOOR FOR THE FUTURE INDEXED RATE THAT ORMET WILL PAY AEP OHIO FOR ELECTRICITY?

A13. There is no predetermined floor for the future indexed rate according to the testimony of Mr. T. Tanchuk (Ormet's Chief Executive Officer), but there is a predetermined floor according to the testimony of Mr. H. Fayne (Ormet's Consultant, respectively).²³ To quote from the testimony of Mr. Tanchuk

Q. Is there a predetermined floor for the future indexed rate that Ormet will pay AEP Ohio for Electricity?

A. No. The proposed Unique Arrangement has been designed to allow Ormet to continue to operate through LME price cycles, which can

²³ See Direct Testimony of M. Tanchuk on behalf of Ormet Primary Aluminum Corporation (Exhibit ORM-1), and the Direct Testimony of H. W. Fayne on behalf of Ormet Primary Aluminum Corporation (Exhibit ORM-6), April 23, 2009.

1 be—and have recently been—very volatile. Rather than
2 establishing a hard floor which could threaten its economic
3 survival with even a brief downturn in the LME price cycle, the
4 Unique Arrangement provides for Commission review of all
5 schedules submitted by Ormet to determine whether they are in the
6 public interest.²⁴
7

8 Accordingly, the indexed rate can potentially turn negative and remain at that
9 level until the Commission reviews all schedules and determines whether they are
10 in the public interest or not.
11

12 On the other hand, Mr. Fayne purports that this is not the case; there is a floor
13 below which the indexed rate can not go below. To quote from his testimony

14 Q. Does the proposed Arrangement provide a floor for the price of
15 electricity?
16

17 A. Yes. The contract design recognizes that the LME Price of
18 aluminum is cyclical and can vary widely. Because the Indexed
19 Rate provides only the minimum cash flow required for survival,
20 the contract was designed without a specific electricity price as a
21 floor; this was done to avoid a shutdown of the smelter if the LME
22 Price fell significantly for a short period of time. Instead the floor
23 was defined on a contract-to date basis, recognizing that there
24 could be brief periods of significant discounts offset by other
25 periods where there were small or no discounts from the AEP Ohio
26 Tariff Rate. Specifically, the contract provides for Commission
27 review if the Cumulative net discount from the AEP Ohio Tariff
28 Rate exceeds 50% of the amount Ormet would have been required
29 to pay under the AEP Tariff Rate. In such event, the Commission
30 would have the discretion, subject to the constraints defined in
31 Section 2.03 of the contract, to modify the terms or to allow the
32 contract to continue under its proposed terms.²⁵
33

34 Accordingly, the indexed rate which will trigger Commission review of this

²⁴ Direct Testimony of M. Tanchuk, at 7.

²⁵ Direct Testimony of W. Fayne at 5.

1 contract (taking 2010 as an example) will be 50% of the Ohio Tariff Rate which if
2 compared to that in effect as of February 1, 2009, namely \$38.43, will be \$19.215
3 per MWh. At that indexed rate of \$19.215, the delta revenue would be
4 \$89,531,216.²⁶ This delta revenue is 160% of the wages paid by Ormet of \$56
5 million.²⁷

6
7 **V. THE DISPROPORTIONAL AND ASYMMETRICAL RISKS**
8 **ASSOCIATED WITH ALUMINUM PRICES IN THE INTERNATIONAL**
9 **MARKETS.**

10
11 ***Q14. WOULD THE FORMULA FOR THE INDEXED ORMET ELECTRICITY***
12 ***RATE PROVIDE AN UPSIDE TO THE DIFFERENT CUSTOMER***
13 ***CLASSES WHEN THE ALUMINUM PRICES ARE ABOVE THE TARGET***
14 ***LME PRICE?***

15 ***A14.*** Yes it would, but in a very asymmetrical and disadvantageous manner to the
16 different customer classes. As highlighted above, when the LME aluminum
17 price is greater than the Target LME price but not by more than \$300 per ton,
18 Ormet shall pay 102% of the AEP Ohio Tariff Rate. Further, Ormet shall pay
19 105% of the AEP Ohio Tariff rate when the LME alumni price is greater than

²⁶ Calculated from multiplying Ormet's consumption at full operation (540 x 0.985 x 8760, or 4,659,444 MWh) times \$19.215 per MWh.

²⁷ Needless to say, if the same calculation is performed on the basis of the proposed rates in AEP's Electric Security Plans (08-917-EL-SSO and 08-918-EL-SSO), the 50% floor shall be \$26.755/MWh and the resulting delta revenue would then reach \$124,663,424 or 225% of the wages paid by Ormet. See "Amended Application of Ormet Primary Aluminum Corporation for approval of Unique Arrangement with Ohio Power Company and Columbus Southern Power Company", April 10, 2009, Attachment A, Schedule A, page 2.

1 the Target LME price by more than \$300 per ton.

2 Taking the proposed Schedule A for 2010 as an example,²⁸ an increase in LME of
3 10% over the Target LME Price of \$2725 (i.e., \$2997.5) will result in an
4 electricity rate for Ormet of \$39.198/MWh. At full operations, the possible
5 annual benefits to AEP-Ohio customer classes at the higher indexed electricity
6 price shall be (\$39.198 – \$38.43) times the annual consumption of 4,659,444
7 MWh, or \$ 3.6 million. Similarly, if LME Price becomes 20% over the Target
8 LME Price of \$2725 (i.e., \$3270/ton), the electricity rate for Ormet shall be
9 \$40.351/MWh (reflecting 5% increase over the AEP-Ohio tariff rate). In such
10 eventuality the possible benefits to the AEP-Ohio customer classes shall be \$ 8.9
11 million annually.²⁹

12
13 On the other hand, if the LME price is 10% less than the target price of \$2725
14 (i.e., \$2452/ton), that will result in an indexed electricity rate of \$25.06/MWh. At
15 full operations, the AEP-Ohio customer classes would be paying delta revenue
16 equal to \$62.2 million annually.³⁰

17
18 The upside to AEP-Ohio customer classes resulting from a 10% increase in the
19 aluminum prices of \$3.6 million is dwarfed by the downside of \$62.2 million of
20 delta revenue from an identical 10% decrease in aluminum price. Again, this
21 downside is more than Ormet's current wage bill of \$56 million. This asymmetry

²⁸ See Amended Application (April 10, 2009) at Attachment A, Schedule A, p.1.

²⁹ Calculated from (\$40.351 – \$38.43) times the annual consumption of 4,659,444 MWh,

³⁰ This is the result of multiplying \$38.43 minus \$25.06 times the annual consumption of 4,659,444 MWh.

1 is even more startling when the upside resulting from a 20% increase in LME
2 aluminum price is compared to the delta revenue resulting from 20% decrease in
3 price; a possible benefit of \$8.9 million for the upside vs. \$124.4 million for the
4 downside.³¹ Exhibit AAI-1 which depicts the price movement for aluminum over
5 the period January 2000 – April 2009 clearly shows that the odds of favorable
6 price movement are not in favor of the different customer classes. The business
7 risks faced by Ormet should not be transferred to other customers of AEP-Ohio.
8

9 ***Q15. WHAT IS THE IMPACT ON RESIDENTIAL CONSUMERS OF THE***
10 ***DELTA REVENUE RESULTING FROM ORMET'S APPLICATION FOR***
11 ***UNIQUE ARRANGEMENT ON THE RESIDENTIAL CUSTOMER CLASS***
12 ***IN THE SERVICE TERRITORIES OF BOTH OHIO POWER COMPANY***
13 ***AND COLUMBUS SOUTHERN POWER COMPANY?***

14 ***A15.*** Recovery of the delta revenue arising from Unique Arrangement is governed by
15 OAC 4901:1-38-08 (A)(4). The article stipulates that “The amount of revenue
16 recovery rider shall be spread to all customers in proportion to the current revenue
17 distribution between and among classes subject to change, alternation, or
18 modification by the Commission.” Accordingly, the share of each customer class
19 within each of the two AEP-Ohio companies will be proportionate to their share
20 in the revenues of their serving utility. Each of the two AEP-Ohio companies will

³¹ A 20% reduction in LME aluminum price will result in \$2180/ton. The associated indexed price for electricity is \$11.725/MWh. At this price level, delta revenue at full operation shall be \$38.43 – \$11.725 times 4,659,444 MWh.

be responsible for 50% of the delta revenue.³²

Table 1 demonstrates the possible Economic Development Riders in the two AEP-Ohio utilities levied on their residential customers to recover delta revenues from the proposed Unique Arrangement in the example year 2010. The first case depicted in the table corresponds to the Economic Development Rider in case that there is a floor below which the Ormet Electricity Rate can not go; in such case the total delta revenue would be \$89.5 million per annum. To recover the relative share of the residential customers of this delta revenue, the Economic Development Rider shall be ¢0.209/kWh in Ohio Power, and ¢0.245/kWh in Columbus Southern. This would cost a typical residential customer using 750 kWh/month close to \$19 per year in Ohio Power, and \$22 per annum in Columbus Southern. For a consumption level closer to the average residential customer in Ohio of 950 kWh/month, the annual cost would be close to \$24 and \$28 in Ohio Power, and Columbus Southern, respectively.

Table 1: Estimates for Economic Development Rider to Recover Delta Revenues in 2010.

Case	With floor @ 50% AEP Ohio Tariff		Without floor @ \$1941/ton	
Delta Revenue	\$89.5 million		\$179 million	
Utility	Ohio Power	Columbus Southern	Ohio Power	Columbus Southern
Utility Share (\$ million)	44.75	44.75	89.50	89.50
Share of Residential Customers (\$ million)	15.77	18.52	31.54	37.05
Rider (cents/kWh)	0.209	0.245	0.419	0.491
Monthly \$ Cost for customer @ 750 kWh	1.57	1.84	3.14	3.68
Annual \$ Cost for customer @ 750 kWh	18.85	22.08	37.71	44.16
Monthly \$ Cost for customer @ 950 kWh	1.99	2.33	3.98	4.66
Annual \$ Cost for customer @ 950 kWh	23.88	27.97	47.76	55.94

Source: Calculated, also see AAI-2.

³² It follows that in Ohio Power Company, the residential customer class will be responsible for 35.2% of the delta revenue allocated to that company (50% of the total delta revenue). Similarly, in Columbus Southern Power Company, the residential customer class will be responsible for 41.4% of the delta revenue allocated to that company (50% of the total delta revenue). See Exhibit AAI-2.

1 In case that there is no price floor, and the Ormet electricity price is allowed to go
2 to zero, the expected delta revenue would be \$179 million. The same typical
3 residential customer of 750 kWh per month would be paying for this Unique
4 Arrangement alone \$38 per year in Ohio Power, and \$44 per year in Columbus
5 Southern. For the average user of 950 kWh /month, the annual price tag for
6 Ormet's Unique Arrangement alone would be \$48 and \$56 for the two companies,
7 respectively.

8
9 **VI. REMARKS AND CONCLUSION**

10
11 ***Q16. DO YOU HAVE ANY OTHER REMARKS ON THE AMENDED***
12 ***APPLICATION?***

13 ***A16.*** Yes, I do. AEP-Ohio's response to OCC Interrogatory Request Int-1 indicated that
14 Ormet would be served under rate schedules applicable to its GS-4 customers.
15 The GS-4 tariff structure in the two AEP-Ohio companies is a two part rate for
16 energy and capacity for both services of "Generation" and "Distribution" (see
17 AAI-3 and AAI-4). It is possible that AEP-Ohio is acknowledging the benefits
18 that may accrue to large industrial customers served at the transmission level
19 voltage like Ormet and differentiating them from the use of other customers
20 served at the subtransmission voltage, and is charging those large customers for
21 part of the cost of serving the lower voltage customers. Clearly then, all different
22 customer classes as well as AEP-Ohio shareholders are direct and indirect
23 beneficiaries to retaining a large customer like Ormet. Any savings that is
24 accruing to the utility as a result of any future requested Arrangement by Ormet

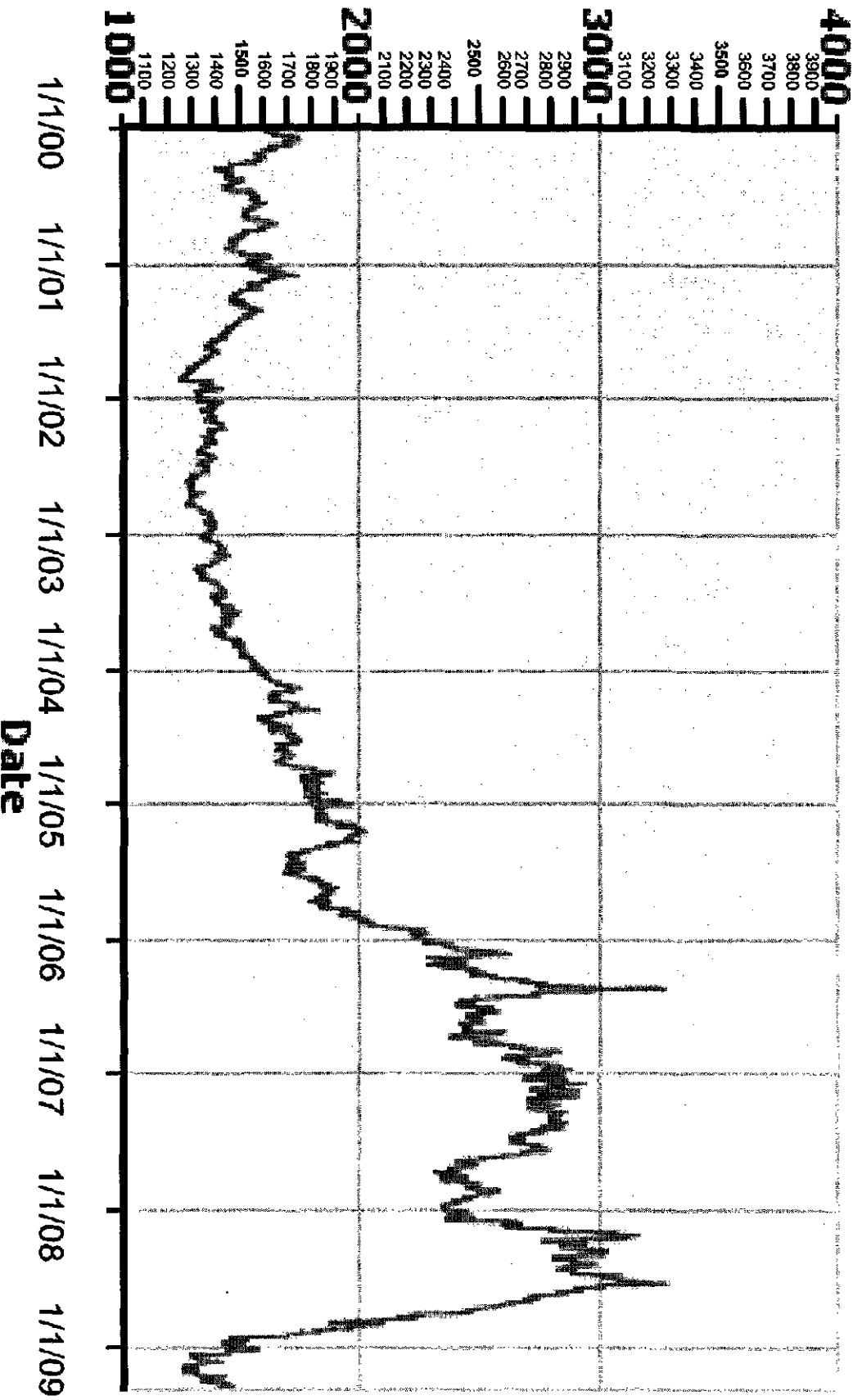
1 should be accounted for and be an offset to the recovery of the delta revenues as
2 stipulated in OAC 4901:1-38-08 (A)(3). Accordingly, it is expected that the AEP-
3 Ohio request for 100% for recovery of delta revenue shall not be automatically
4 granted, but shall be subject to the usual scrutiny by the Commission to account
5 for the benefits to the utility shareholders on a case-by-case basis as highlighted in
6 some of its recent Orders and Opinions.³³

7
8 ***Q17. DOES THIS CONCLUDE YOUR TESTIMONY?***

9 ***A17.*** Yes, for the time being. However, I reserve the right to incorporate new
10 information that may subsequently become available. I also reserve the right to
11 supplement my testimony in response to positions taken by the PUCO Staff and
12 any other party of this proceeding.

³³ See the Commission's Order and Opinion in Ohio Edison Company, the Cleveland Electric Illuminating Company, and the Toledo Edison Company (Case 08-935-EL-SSO), December 19, 2008.

Exhibit AAI-1



Source: http://www.lme.co.uk/aluminium_graphs.asp

Sales and Revenues by Tariff Class in Ohio Power and Columbus Southern Power, 2008

	<i>Ohio Power</i>		<i>Columbus Southern Power</i>	
		<i>%</i>		<i>%</i>
<u>MWh Sales</u>				
Residential Sales (440)	7,527,989	0.270	7,550,528	0.340
Commercial (442)	5,823,797	0.209	8,771,995	0.395
Industrial	14,441,162	0.518	5,827,886	0.262
Public St., Highway Lighting (444)	77,966	0.003	55,242	0.002
Sales to Public Authorities (445)	626	0.000	0	0.000
Sales to Railways (446)				
Interdepartmental Sales (448)				
Total Sales to Ultimate Customers	27,871,540	1.000	22,205,651	1.000
<u>Sales Revenues</u>				
Residential Sales (440)	602,770,227	0.352	720,760,928	0.414
Commercial (442)	402,149,196	0.235	684,227,108	0.393
Industrial	696,187,169	0.407	330,371,313	0.190
Public St., Highway Lighting (444)	9,406,473	0.005	5,872,421	0.003
Sales to Public Authorities (445)	32,865	0.000	0	0.000
Sales to Railways (446)				
Interdepartmental Sales (448)				
Total Revenues to Ultimate Customers	1,710,545,930	1.000	1,741,231,770	1.000
<u>Number of Customers</u>				
Residential Sales (440)	609,365		665,306	
Commercial (442)	92,205		78,052	
Industrial	7,310		3,431	
Public St., Highway Lighting (444)	2,541		310	
Sales to Public Authorities (445)	26		0	
Sales to Railways (446)	0		0	
Interdepartmental Sales (448)	0		0	
Total Customers	711,447		747,099	

Source: Form 1, p. 304, 2008.

OHIO POWER COMPANY

EXHIBIT DMR-10
Page 70 of 296
Original Sheet No. 24-1

P.U.C.O. NO. 19

SCHEDULE GS-4
(General Service - Large)Availability of Service

Available for general service customers. The customer shall contract for a sufficient capacity to meet normal maximum requirements, but in no case shall the capacity contracted for be less than 8,000 KW. This schedule shall remain in effect through the last billing cycle of December 20082009.

Customers with multiple plants served under Schedule I.P., P.U.C.O. No. 14, 5th Revised Sheet No. 18, on April 10, 1981, at a subtransmission or transmission delivery voltage pursuant to the provision then in the tariff which provided that contracts will be made for minimum capacities of 20,000 KVA in the aggregate for all plants, but not less than 3,000 KVA at any one plant, may continue to be served hereunder at the rate for the appropriate delivery voltage. Additional or substitute plants may not be served under that provision.

Monthly Rate

Schedule Codes		Generation	Distribution	Total
322	Primary Voltage:			
	Demand Charge (\$ per KW)	8.74 10.44	2.90 2.85	41.64 13.39
	Off-Peak Excess Demand Charge (\$ per KW)	6.24 6.23	—	6.24 6.23
	Energy Charge (\$ per KWH)	1.02274 —	— 0.03740	1.02274 0.03740
	Customer Charge (\$)	—	170.00 172.85	170.00 172.85
323	Subtransmission Voltage:			
	Demand Charge (\$ per KW)	8.62 10.18	1.20 1.22	0.73 11.40
	Off-Peak Excess Demand Charge (\$ per KW)	1.88 2.24	—	1.88 2.44
	Energy Charge (\$ per KWH)	1.01636 0.02249	— 0.03740	1.01636 0.05983
	Customer Charge (\$)	—	460.00 467.55	460.00 467.55
324	Transmission Voltage:			
	Demand Charge (\$ per KW)	8.37 10.00	0.45 0.46	8.82 10.46
	Off-Peak Excess Demand Charge (\$ per KW)	0.95 1.13	—	0.95 1.13
	Energy Charge (\$ per KWH)	1.01268 0.01803	— 0.03740	1.01268 0.05543
	Customer Charge (\$)	—	560.00 569.38	560.00 569.38

The distribution Reactive Demand Charge for each KVAR of reactive demand, leading or lagging, in excess of 50% of the KW metered demand is \$0.500.51 per KVAR.

Filed pursuant to Order dated _____ in Case No. _____

Issued: _____

Issued by
Joseph Hamrock, President
AEP Ohio

Effective: Cycle 1 January 2009

COLUMBUS SOUTHERN POWER COMPANY

P.U.C.O. NO. 7

SCHEDULE GS-4
(General Service - Large)Availability of Service

Available for general service customers using the Company's standard subtransmission or transmission service with maximum demands in excess of 1,000 KVA. This schedule shall remain in effect through the last billing cycle of December 2008~~2009~~.

Monthly Rate (Schedule Codes 311, 312)

	Generation	Distribution	Total
Customer Charge (\$)	—	750.00 763.35	750.00 83.35
Demand Charge (\$ per KVA):			
First 3,000 KVA	9.484 10.285	0.600 0.712	10.180 10.997
Over 3,000 KVA	4.002 4.341	0.600 0.712	4.704 5.053
Off-Peak Excess Demand Charge (\$ per KVA)	1.427 1.547	—	1.427 1.547
Energy Charge (\$ per KWH)	2.48085 0.04987	— 0.04701	2.48085 0.09058

Minimum Charge

The minimum charge shall be equal to the sum of the Customer Charge, Demand Charges, and all applicable riders.

Delayed Payment Charge

The above schedule is net if full payment is received by mail, checkless payment plan, electronic payment plan or at an authorized payment agent of the Company within 21 days after the mailing of the bill. On all accounts not so paid, an additional charge of five percent (5%) of the total amount billed will be made.

Applicable Riders

Monthly Charges computed under this schedule shall be adjusted in accordance with the following applicable riders:

(Continued on Sheet No. 24-2)

Filed pursuant to Order dated _____ In Case No. _____

Issued: _____

Issued by
Joseph Hamrock, President
AEP Ohio

Effective: Cycle 1 January 2009

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Direct Testimony of Amr Ibrahim was provided to the persons listed below via electronic transmission and regular U.S. Mail, postage prepaid, this 27th day of April 2009.


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