

142 FERC ¶ 61,157  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;  
Philip D. Moeller, John R. Norris,  
Cheryl A. LaFleur, and Tony Clark.

Louisville Gas and Electric Company

Docket Nos. ER13-553-000  
EL13-46-000

ORDER ACCEPTING PROPOSED TARIFF REVISIONS AND ESTABLISHING  
HEARING AND SETTLEMENT PROCEDURES

(Issued February 28, 2013)

1. In this order, we accept the tariff revisions submitted by Louisville Gas and Electric Company (LG&E) and Kentucky Utilities Company (KU)<sup>1</sup> (collectively, LG&E/KU), pursuant to section 205 of the Federal Power Act (FPA),<sup>2</sup> to implement a reduction in the transmission loss factor in Schedule 11 (Loss Compensation Service) of the LG&E/KU joint Open Access Transmission Tariff (OATT).<sup>3</sup> As discussed below, we set the proposed tariff for hearing and settlement judge procedures, and accept it, to be effective March 1, 2013, subject to further reduction and refunds,

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<sup>1</sup> LG&E properly made this joint tariff filing, pursuant to Order No. 714, on behalf of itself and KU. KU therefore automatically is considered a party to this proceeding. We note, however, that KU is not listed on the Commission's service list because LG&E did not designate KU as an "Additional Applicant" in the Commission's eFiling system at the time of its filing. We remind the industry that, if a company that is designated as the filer of a joint or shared tariff wants an additional company or companies listed on the service list, it must designate the additional company or companies as an "Additional Applicant" when it makes the filing in the Commission's eFiling system.

<sup>2</sup> 16 U.S.C. § 824d (2006).

<sup>3</sup> Louisville Gas and Electric Company, FERC FPA Electric Tariff. Transmission. [Part IV SCHED 11, Part IV SCHED 11 Loss Compensation Service, 4.0.0.](#)

should they be found appropriate in the investigation we institute pursuant to section 206 of the FPA.<sup>4</sup>

**I. Background**

**A. Loss Compensation Service**

2. Schedule 11 (Loss Compensation Service) of the OATT currently states:

Capacity and energy losses occur when a Transmission Owner [LG&E/KU] delivers electricity across its transmission facilities for a Transmission Customer. A Transmission Customer may elect to: (1) supply the capacity and/or energy necessary to compensate the Transmission Owner for such losses [in-kind losses], (2) receive an amount of electricity at delivery points that is reduced by the amount of losses incurred by the Transmission Owner, or (3) with the concurrence of the Transmission Owner, have the Transmission Owner supply the capacity and/or energy necessary to compensate for such losses.

The loss factor used to determine the amount of losses associated with the use of facilities other than distribution facilities shall be three (3) percent. For Point-to-Point Transmission Service, the Transmission Owner will determine such losses by dividing the sum of hourly energy scheduled to be delivered to the Transmission Customer's Points of Delivery by 0.97 less the amount scheduled to be delivered. Subject to the final sentence of this paragraph, losses to be supplied by the Transmission Customer for Network Integration Service will be 3 percent of that hour's actual Network Load. However, in no event shall the losses determination result in the Transmission Owner being under compensated after any hour. To the extent that an existing or potential new Network Customer with behind-the-meter generation, raises any concern regarding the loss calculation for load served with its behind-the-meter generation, the Transmission Owner will address such concerns on a

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<sup>4</sup> 16 U.S.C. § 824e (2006).

case-by-case basis in the Service Agreement.

If the Transmission Owner and Transmission Customer agree to have the Transmission Owner compensated for losses under option 3 above, the Transmission Customer shall be charged for Loss Compensation Service at a rate not to exceed 100 percent of the Transmission Owner's incremental cost to produce energy after serving all other obligations (including economy and opportunity transactions) and a Generation Capacity Loss Adder of \$0.006 per kWh.

**B. 2010 Settlement**

3. On October 8, 2010, the Commission approved a Joint Offer of Settlement (2010 Settlement)<sup>5</sup> resolving a dispute regarding the appropriate transmission loss factor that E.ON<sup>6</sup> should use under the LG&E/KU joint OATT and whether the load served from the behind-the-meter resources of the Kentucky Municipals should be included in the calculation of transmission losses. Article II of the 2010 Settlement provides that E.ON (now LG&E/KU) will conduct an updated Transmission Loss Study after the new Trimble County Station No. 2 generator and associated transmission facilities have been in service for at least one year, and submit a filing to the Commission including the results of its updated study and revisions to the OATT to apply the updated loss factor prospectively. Additionally, LG&E/KU committed to providing stakeholders with a plan for the Transmission Loss Study, as well as a means for stakeholders to provide comments on the study methodology; however, LG&E/KU expressly reserved the right to determine the final study methodology, subject to, among other things, the rights of settling parties and participants to protest the study and its results when it is filed with the Commission.

4. The 2010 Settlement also provides for: (1) true-up procedures, pursuant to which, if the Transmission Loss Study results in a transmission loss factor for LG&E/KU of less than 3 percent, LG&E/KU would provide refunds retroactively to January 29, 2010, for all over-collected losses associated with Kentucky Municipals'

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<sup>5</sup> *E.ON U.S. LLC*, 133 FERC ¶ 61,024 (2010) (resolving all issues set for hearing and settlement judge procedures between LG&E, KU, Owensboro Municipal Utilities (OMU) and Kentucky Municipal Power Agency (KMPA) (together, Kentucky Municipals), and American Municipal Power, Inc.).

<sup>6</sup> At the time of the Settlement was filed, LG&E/KU were wholly-owned subsidiaries of E.ON USA, LLC.

Network Load not served by behind-the-meter generation and all point-to-point transmission service used by Kentucky Municipals; (2) resolution of issues related to Kentucky Municipals' Network Load served by behind-the-meter generation; and (3) interim relief related to transmission losses related to Kentucky Municipals' Network Load served with behind-the-meter generation.

**C. LG&E/KU Filing**

5. In the December 13, 2012 filing, LG&E/KU propose to revise Schedule 11 of the OATT to reduce the transmission loss factor to 2.048 percent (from 3 percent) used to determine losses associated with the use of facilities other than distribution facilities. LG&E/KU request an effective date of March 1, 2013. According to LG&E/KU, the 2.048 percent transmission loss factor will generally be applied to Network Service, and the divisor for determining losses for Point-to-Point Transmission Service will change to 0.97952 (from 0.97) reflecting the change from 3 percent to 2.048 percent.

6. The Trimble County Station No. 2 generator commenced service in January 2011. To comply with the terms of the 2010 Settlement, LG&E/KU completed a Transmission Loss Study for the twelve month period beginning February 1, 2011 (representing one year of service of Trimble County Station No. 2) showing a 2.048 percent transmission loss factor. LG&E/KU state that the proposed reduced transmission loss factor was determined through the Transmission Loss Study conducted by Paul M. Normand.<sup>7</sup> According to Mr. Normand, the Transmission Loss Study used three seasonal power flow models to form the basis for 8,760 simulations in order to collect a year's worth of data; the results yielded a loss factor of 2.048 percent, down from the currently-effective 3 percent.<sup>8</sup>

7. LG&E/KU state that the 2010 Settlement stipulated that LG&E/KU permit stakeholders to have input regarding the methodology and assumptions used in performing the Transmission Loss Study. LG&E/KU state it commenced outreach efforts in November 2011, providing stakeholders with a written overview of the study process, including the time period to be studied, how the LG&E and KU systems would be separately studied, the data that would be used for hourly loads, the voltage levels to be studied, how new facilities would be addressed, and the overall loss calculation method. LG&E/KU held a conference call with stakeholders on December 13, 2011 to discuss the overview, and a more detailed technical conference was held on January 20, 2012 discussing the loss study methodology. LG&E/KU

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<sup>7</sup> See Initial Test. of Paul M. Normand, Ex. No. LG&E/KU-1.

<sup>8</sup> *Id.*

state that final comments were requested on the Transmission Loss Study by January 27, 2012.<sup>9</sup>

8. Lastly, LG&E/KU request a waiver of section 35.13 of the Commission's regulations which relates to the requirement to provide Period I and Period II cost-of-service statements because the proposed changes relate solely to the implementation of a new reduced loss factor under Schedule 11 of the OATT.<sup>10</sup>

## **II. Notice of Filing and Responsive Pleadings**

9. Notice of LG&E/KU's filing was published in the *Federal Register*, 77 Fed. Reg. 76,023 (2012), with interventions and protests due on or before January 3, 2013. The Kentucky municipal requirements customers of KU, OMU and KMPA and its members, Paducah Power System and the Princeton Electric Plant Board (collectively, Kentucky Municipals) jointly filed a timely motion to intervene and protest, requesting a hearing and settlement procedures. LG&E/KU filed an answer to Kentucky Municipals protest. Kentucky Municipals filed an answer to the LG&E/KU answer. LG&E/KU filed an answer responding to Kentucky Municipals' answer.

### **A. Kentucky Municipals Protest**

10. In their Protest, Kentucky Municipals state that, despite the LG&E/KU presentation of their plan for the Transmission Loss Study, it was not possible to reach consensus on the methodology for the study. Kentucky Municipals argue that LG&E/KU did not provide enough details for stakeholders to meaningfully evaluate the methodology.<sup>11</sup> Kentucky Municipals also state that they requested a live demonstration of the loss study model, but LG&E/KU declined.<sup>12</sup> Further, Kentucky Municipals indicate that they requested that LG&E/KU preserve and provide all communications, preliminary results, study revisions, etc., for review by Kentucky Municipals, but they did not receive any of this information.<sup>13</sup> Kentucky Municipals explain that they were concerned (because the study results were not released when

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<sup>9</sup> LG&E/KU Filing at 3-4.

<sup>10</sup> *Id.* at 7.

<sup>11</sup> Kentucky Municipals Protest at 5.

<sup>12</sup> *Id.* at 6.

<sup>13</sup> *Id.* at 6-7.

originally expected) that there were undisclosed initial results that were unfavorable for LG&E/KU.<sup>14</sup>

11. Kentucky Municipals acknowledge that LG&E/KU has the right under the 2010 Settlement “to determine the final study methodology,” but argue that the study itself does not contain sufficient information to allow the Commission to make a reasoned conclusion as to whether the new transmission loss factor is just and reasonable.<sup>15</sup> Kentucky Municipals state that, although the models involved in the study “take into account the physical nature of the transmission facilities, including the geographic location and type of generation facilities, customer loads, and electric system substation interconnections, to determine a mathematical solution of pre-defined system conditions,” no details are provided as to how those elements are taken into account, or any description of what “pre-defined system conditions” were selected.<sup>16</sup>

12. Kentucky Municipals further state that, although LG&E/KU testimony explains that, “the study used three seasonal power flow models for the LG&E and KU systems separately,” nothing explains modeling differences over the three seasons, including which generation and transmission units are in service each season, and the reasons for those assumptions.<sup>17</sup> Furthermore, Kentucky Municipals state that it is not possible to determine how Mr. Normand arrived at the hourly losses that ultimately determine the total transmission loss.<sup>18</sup>

13. Similarly, Kentucky Municipals comment that, though certain amounts identified in the LG&E/KU study as “GSU losses” were subtracted from the estimated total losses on the LG&E/KU systems, there is no way to know if those amounts were reasonably determined.<sup>19</sup> Kentucky Municipals maintain that the seasonal simulation

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<sup>14</sup> Kentucky Municipals point out that the 2010 Settlement states that “[t]he Settling Parties anticipate that the loss study will take approximately 2-3 months to prepare” (2010 Settlement, Article C). Kentucky Municipals argue that after the data was gathered this corresponds to a May, 2012 completion date.

<sup>15</sup> Kentucky Municipals Protest at 6-7.

<sup>16</sup> *Id.* at 8.

<sup>17</sup> *Id.*

<sup>18</sup> *Id.* at 9.

<sup>19</sup> *Id.*; “GSU” refers to “generator step-up” units, facilities excluded from the loss study per the 2010 Settlement.

models were conducted within a “black box,” in which the results are outputted with no way to shed light on the validity of the algorithms leading to the results.<sup>20</sup> Kentucky Municipals make the same argument concerning “no-load losses” because they are offered in the study without any discussion concerning how they were estimated.<sup>21</sup> Kentucky Municipals suggest that a protective order would allow review of a potentially proprietary simulation model.<sup>22</sup>

14. Kentucky Municipals also point out inconsistencies and apparent errors in the Transmission Loss Study. Kentucky Municipals explain that even though Mr. Normand’s testimony describes three seasons used for the study, the study is organized into two seasons.<sup>23</sup> Furthermore, Kentucky Municipals claim that the explanatory note (5) is intended to state that, Transmission Variable “excludes” Losses at 0.5 percent—instead of using the word “includes”—in the Transmission Variable column in Mr. Normand’s Schedule 5 of Ex. No. LG&E/KU-4.<sup>24</sup> Lastly, Kentucky Municipals state that there is an arithmetic error which causes the losses for which customers are responsible to be overstated.<sup>25</sup> Kentucky Municipals assert that the correct divisor should be 0.97993, in lieu of the proposed divisor of 0.97952.<sup>26</sup>

**B. LG&E/KU Answer**

15. In its January 18, 2013 Answer to Kentucky Municipals’ Protest, LG&E/KU explain that its proposed reduction to the transmission loss factor is adequately supported, and contends that there are no genuine issues of material fact in dispute.<sup>27</sup>

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<sup>20</sup> *Id.*

<sup>21</sup> *Id.* at 10; “No-load losses” includes transformer core losses, conductor corona, insulator losses, and substation unmetered auxiliary energy use. Ex. No. LG&E/KU-1 at Page 5, Lines 18-21.

<sup>22</sup> *Id.* at 8.

<sup>23</sup> *Id.* at 8-9.

<sup>24</sup> *Id.* at 10.

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*; Kentucky Municipals point out that LG&E/KU incorrectly subtracted 0.02048 from 1.00, arriving at 0.97952, while the correct derivation divides 1.00 by 1.0248, resulting in 0.97993.

<sup>27</sup> LG&E/KU Answer at 6-7.

LG&E/KU contend that further inquiry into the power flow simulation modeling software is not possible because LG&E/KU does not own the software; its use is instead licensed. LG&E/KU also claim that this software product cannot be filed with the Commission.<sup>28</sup>

16. LG&E/KU concede that certain aspects of its filing are incorrect or misstated. LG&E/KU clarify that the data listed on Appendix B, Line 22 of Ex. No. LG&E/KU-4 of the filing should reference Lines 1 and 4 of Ex. No. LG&E/KU-4, Schedule 5, and the data listed on Appendix B, Line 34 should reference Lines 1 and 4 of Schedule 4 of the Exhibit. Additionally, LG&E/KU state that note 4 on Schedule 5 should read “Transmission Variable *excludes* Losses at 0.5% from Appendix A (Monthly MWH Losses) and Appendix B (Monthly MWH Energy).” LG&E/KU further state that the divisor stated in Schedule 11 of its OATT should be 0.97993 rather than 0.97952 as filed by LG&E.<sup>29</sup>

### C. Kentucky Municipals Answer

17. In the Answer of Kentucky Municipals filed February 4, 2013, Kentucky Municipals argue that LG&E/KU’s answer fails to demonstrate that the new proposed loss factor is just and reasonable.<sup>30</sup> Furthermore, Kentucky Municipals assert that LG&E/KU, by refusing to provide readily available, relevant information about the Transmission Loss Study, has failed to comply with the 2010 Settlement. Specifically, Kentucky Municipals contend that LG&E/KU’s answer offers no explanation why the Transmission Loss Study took significantly longer to complete than had been anticipated by the terms of the 2010 Settlement. In addition, Kentucky Municipals argue that LG&E/KU has continued to refuse to provide information about how the seasonal representations of its transmission system in the power flow model differed from one another and what impact those differences had upon the study results.<sup>31</sup> Kentucky Municipals also maintain LG&E/KU has failed to produce information regarding the assumptions that affected the inputs into the study, and how those assumptions and inputs affected the results, as well as any justification for changes to the assumption. Finally, Kentucky Municipals dismiss LG&E/KU’s argument that the power flow simulation model includes licensed software. Kentucky Municipals contend that, to the extent that LG&E/KU and its consultant may have already used the model to produce a range of results based on varying assumptions, it

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<sup>28</sup> *Id.* at 9.

<sup>29</sup> *Id.* at 9-10.

<sup>30</sup> Kentucky Municipals Answer at 1.

<sup>31</sup> *Id.* at 3.



may not be necessary to conduct further runs to determine that the results selected were not reasonable.<sup>32</sup>

**D. LG&E/KU Answer to Kentucky Municipals' Answer**

18. LG&E/KU assert that they have provided sufficient detail for the Commission to determine that the proposed reduction in the transmission loss factor is just and reasonable. LG&E/KU argue that they have fully complied with the terms of the 2010 Settlement by providing stakeholders with a written overview of the study process, conducting a conference call with stakeholders to address preliminary questions, and conducting a more detailed conference call with stakeholders that allowed for participation from stakeholders' outside experts. LG&E/KU contend that nothing in the 2010 Settlement supports Kentucky Municipals' claim that LG&E/KU were required to include Kentucky Municipals in the implementation of the plan, or to provide them with "preliminary results" or other additional information regarding the loss study.<sup>33</sup>

**III. Discussion**

**A. Procedural Matters**

19. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2012), the timely, unopposed motion to intervene of Kentucky Municipals serves to make them parties to this proceeding.

20. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2012), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept the answers of LG&E/KU and Kentucky Municipals because they have provided information that assisted us in our decision-making process.

**B. Commission Determination**

21. Upon review, we find that the proposed tariff revisions raise issues of material fact that cannot be resolved based on the record before us, and that are more appropriately addressed in the hearing and settlement judge procedures ordered below. Our preliminary analysis indicates that the LG&E/KU proposed tariff revisions have not been shown to be just and reasonable and may be unjust, unreasonable, and unduly discriminatory or preferential, or otherwise unlawful.

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<sup>32</sup> *Id.* at 4-5.

<sup>33</sup> LG&E/KU's Answer to Kentucky Municipal's Answer at 3-4.

Accordingly, we will accept the LG&E/KU proposed tariff revisions to become effective March 1, 2013, and set them for hearing.

22. In addition, while LG&E/KU are proposing a rate decrease, our preliminary review indicates that a further decrease may be warranted. Accordingly, we will also institute a section 206 investigation in Docket No. EL13-46-000 with respect to the justness and reasonableness of LG&E/KU's proposed rate decrease.

23. In cases where, as here, the Commission institutes an investigation on its own motion, section 206(b) of the FPA, as amended by section 1285 of the Energy Policy Act of 2005,<sup>34</sup> requires that the Commission establish a refund effective date that is no earlier than publication of the notice of the Commission's initiation of its investigation in the *Federal Register*, and no later than five months after the publication date. Consistent with our general policy of providing maximum protection to customers<sup>35</sup> we will establish the refund effective date at the earliest date possible, i.e., the date the initiation of investigation in Docket No. EL13-46-000 is published in the *Federal Register*.

24. Section 206(b) also requires that, if no final decision is rendered by the refund effective date or by the inclusion of the 180-day period commencing upon initiation of a proceeding pursuant to section 206, the Commission shall state the reason why it has failed to do so and shall state its best estimate as to when it reasonably expects to make such a decision. Based on our review of the record, we expect that, if this case does not settle, the presiding judge should be able to render a decision within 12 months of the commencement of hearing procedures, or, if the case were to go to hearing, immediately, by February 28, 2014. Thus, we estimate that, if the case were to go to hearing immediately, we would be able to issue our decision within approximately nine months of the filing of briefs on and opposing exceptions, or by January 31, 2015.

25. While we are setting these matters for a trial-type evidentiary hearing, we encourage the parties to make every effort to settle their disputes before hearing procedures are commenced. To aid the parties in their settlement efforts, we will hold hearing in abeyance and direct that a settlement judge be appointed, pursuant to Rule

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<sup>34</sup> Energy Policy Act of 2005, Pub. L. No. 109-58, § 1285, 119 Stat. 594, 980-81 (2005).

<sup>35</sup> See, e.g., *Seminole Elec. Coop., Inc. v. Florida Power & Light Co.*, 65 FERC ¶ 61,413, at 63,139 (1993); *Canal Elec. Co.*, 46 FERC ¶ 61,153, at 61,539, *reh'g denied*, 47 FERC ¶ 61,275 (1989).

603 of the Commission's Rules of Practice and Procedure.<sup>36</sup> If the parties desire, they may, by mutual agreement, request a specific judge as the settlement judge in the proceeding; otherwise, the Chief Judge will select a judge for this purpose.<sup>37</sup>

26. The settlement judge shall report to the Chief Judge and the Commission within thirty (30) days of the date of the appointment of the settlement judge, concerning the status of settlement discussions. Based on this report, the Chief Judge shall provide the parties with additional time to continue their settlement discussions or provide for commencement of a hearing by assigning the case to a presiding judge.

27. LG&E/KU request a waiver of the requirement in section 35.13 of the Commission's regulations<sup>38</sup> to submit additional cost of service statements. The Commission will grant the requested waiver of the filing requirements under section 35.13 of the Commission's regulations due to the transmission loss factor rate decrease. However, this finding does not preclude parties at the hearing from demonstrating the need for additional specific information to allow for a full evaluation of this proposal.

The Commission orders:

(A) LG&E/KU's proposed tariff revisions are hereby accepted for filing to become effective March 1, 2013, as discussed in the body of this order.

(B) LG&E/KU's request for waiver of the cost of service filing requirements under 18 C.F.R. § 35.13 is hereby granted, as discussed in the body of this order.

(C) Pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Energy Regulatory Commission by section 402(a) of the Department of Energy Organization Act and by the Federal Power Act, particularly sections 205 and 206 thereof, and pursuant to the Commission's Rules of Practice and Procedure and the regulations under the Federal Power Act (18 C.F.R., Chapter I), a public hearing shall be held concerning LG&E/KU's proposed tariff revisions.

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<sup>36</sup> 18 C.F.R. § 385.603 (2012).

<sup>37</sup> If the parties decide to request a specific judge, they must make their joint request to the Chief Judge by telephone at (202) 502-8500 within five days of the date of this order. The Commission's website contains a list of Commission judges and a summary of their background and experience (<http://www.ferc.gov/legal/adr/avail-judge.asp>).

<sup>38</sup> 18 C.F.R. § 35.13 (2012).

However, the hearing shall be held in abeyance to provide time for settlement judge procedures, as discussed in Paragraphs (D) and (E) below.

(D) Pursuant to Rule 603 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.603 (2012), the Chief Administrative Law Judge is hereby directed to appoint a settlement judge in this proceeding within fifteen (15) days of the date of this order. Such settlement judge shall have all powers and duties enumerated in Rule 603 and shall convene a settlement conference as soon as practicable after the Chief Judge designates the settlement judge. If the parties decide to request a specific judge, they must make their request to the Chief Judge within five (5) days of the date of this order.

(E) Within thirty (30) days of the appointment of the settlement judge, the settlement judge shall file a report with the Commission and the Chief Judge on the status of the settlement discussions. Based on this report, the Chief Judge shall provide the parties with additional time to continue their settlement discussions, if appropriate, or assign this case to a presiding judge for a trial-type evidentiary hearing, if appropriate. If settlement discussions continue, the settlement judge shall file a report at least every sixty (60) days thereafter, informing the Commission and the Chief Judge of the parties' progress toward settlement.

(F) If settlement judge procedures fail and a trial-type evidentiary hearing is to be held, a presiding judge, to be designated by the Chief Judge, shall, within fifteen (15) days of the date of the presiding judge's designation, convene a prehearing conference in this proceeding in a hearing room of the Commission, 888 First Street, NE Washington, DC 20426. Such a conference shall be held for the purpose of establishing a procedural schedule. The presiding judge is authorized to establish procedural dates and to rule on all motions (except motions to dismiss) as provided in the Commission's Rules of Practice and Procedure.

(G) The Secretary shall promptly publish in the *Federal Register* a notice of the Commission's initiation of section 206 proceedings in Docket No. EL13-46-000.

(H) The refund effective date established pursuant to section 206(b) of the Federal Power Act will be the date of publication in the *Federal Register* of the notice discussed in Ordering Paragraph (G) above.

By the Commission.

( S E A L )

Kimberly D. Bose,  
Secretary.