

Decision 09-09-033 September 24, 2009

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

In the Matter of the Application of Southern California Edison Company (U338E) for a Certificate of Public Convenience and Necessity Concerning the Antelope-Pardee 500 kV (Segment 1) Transmission Project as Required by Decision 04-06-010 and as Modified by Subsequent Assigned Commissioner Ruling.

Application 04-12-007  
(Filed December 9, 2004)

And Related Matter.

Application 04-12-008  
(Filed December 9, 2004)

**DECISION MODIFYING DECISION (D.) 07-03-012 AND D.07-03-045**

## TABLE OF CONTENTS

Title	Page
DECISION MODIFYING DECISION (D.) 07-03-012 AND D.07-03-045 .....	2
1. Background.....	2
2. Procedural Requirements under Rule 16.4.....	4
3. Requested Relief in Petition for Modification of D.07-03-012.....	5
4. Requested Relief in Petition for Modification of D.07-03-045.....	6
5. Construction Costs for the Antelope Transmission Project .....	8
6. Treatment of AFUDC.....	12
7. Conclusion .....	14
8. Comments on Proposed Decision .....	14
9. Assignment of Proceedings.....	14
Findings of Fact .....	15
Conclusions of Law .....	17
ORDER .....	19

Attachment 1 - Redline of Modifications to Affected Portions of D.07-03-012

Attachment 2 - Redline of Modifications to Affected Portions of D.07-03-045

## **DECISION MODIFYING DECISION (D.) 07-03-012 AND D.07-03-045**

### **1. Summary**

On July 18, 2008, Southern California Edison Company (SCE) filed separate petitions for modification of Decision (D.) 07-03-012 in Application (A.) 04-12-007 and of D.07-03-045 in A.04-12-008 (collectively, the Decisions). The most significant change to the Decisions requested by SCE is to consolidate the maximum reasonable and prudent costs (maximum cost) set in the two Decisions, and to increase the total maximum cost for the transmission projects approved in the Decisions from \$257.60 million to \$746.00 million.

This decision grants the requested relief, as adjusted herein, and modifies D.07-03-012 as set forth in Attachment 1 and modifies D.07-03-045 as set forth in Attachment 2.

### **2. Background**

The Commission granted two applications for Certificates of Public Convenience and Necessity (CPCNs) in proceedings related to the Antelope Transmission Project (ATP) in March 2007. The ATP comprises the first stage of a potential series of projects designed to deliver renewable energy resources from the Tehachapi Wind Resource Area (TWRA) to SCE load centers. In A.07-12-007, the Commission considered Segment 1 of the ATP, the Antelope-Pardee 500 kilovolt (kV) transmission project, and granted a CPCN in D.07-03-012, mailed March 6, 2007. That decision set the maximum cost for Segment 1 at \$92.5 million. In A.07-12-008, the Commission considered Segments 2 and 3 of the ATP, the Antelope-Vincent 500 kV transmission project and the Antelope-Tehachapi 500 kV transmission project, and granted a CPCN in D.07-03-045, mailed March 15, 2007. That decision set the maximum cost for

Segment 2 at \$63 million and for Segment 3 at \$102.1 million. All of the maximum cost numbers were calculated in 2005 dollars and included pension and benefits, and administrative and general expenditures.<sup>1</sup> Together, the maximum costs for Segments 1, 2, and 3 total \$257.6 million in 2005 dollars.

On July 18, 2008, SCE filed separate petitions for modification of D.07-03-012 and D.07-03-045 (the Petitions). Most significantly, the Petitions request the Commission to establish a single budget for all three segments of the ATP and to increase the total maximum cost to \$746 million in 2008 dollars, including pension and benefits, administrative and general expenditures, but excluding Allowance for Funds Used During Construction (AFUDC). The Petitions also request specific routing and/or engineering changes. No party opposed the Petitions.

Administrative Law Judge (ALJ) Victoria Kolakowski issued a ruling on October 6, 2008, ordering consolidation of the two proceedings because both Petitions sought as relief creation of a single maximum cost for the entire approved ATP. The ruling also ordered SCE to provide additional information to meet the requirements of Rule 16.4(b) of the Commission's Rules of Practice and Procedure,<sup>2</sup> including specific wording to carry out proposed modifications to the Decisions. No party objected to the consolidation, and SCE filed its response on November 5, 2008 (Response).

A proposed decision (PD) was issued on February 9, 2009. The PD was withdrawn based upon communications from SCE that it had additional

---

<sup>1</sup> See Ordering Paragraph 5 in both D.07-03-012 and D. 07-03-045.

<sup>2</sup> All further references to Rules are to the Commission's Rules of Practice and Procedure, unless otherwise noted.

updated information regarding the Petitions, specifically with reference to the AFUDC calculations and potential inconsistencies with another pending transmission CPCN application – A.07-06-031. SCE provided the updated information in an April 28, 2009 amendment to the Petitions (Amendment).

### **3. Procedural Requirements under Rule 16.4**

Rule 16.4 governs the process for the filing and consideration of Petitions for Modification. Rule 16.4(b) requires that a Petition for Modification concisely state the justification for the proposed relief and to propose specific wording for all requested modifications. SCE's Petitions contained a concise but thorough statement of justification for the proposed modifications. SCE's Response proposed specific wording for all requested modifications in Appendices A and B of that Response. Hence, this requirement has been fulfilled for the Petitions.

Rule 16.4(d) states that if more than one year has elapsed since the effective date of the decision, then a petition for modification must explain why it could not have been presented within one year of the effective date of the decision. SCE's Petitions are based upon a number of factors, including changes to costs over time and engineering costs that were uncertain until third-party interconnection requests were filed and designs could be completed. Most significantly, given a significant increase in interconnection requests, SCE has elected to upgrade ATP Segments 1, 2, and 3 from 230 kV to 500 kV operability, as permitted in the Decisions. Those Decisions, however, did not include some of the costs of this upgrade in their approved maximum costs because such a system upgrade was not anticipated to occur until much later. Given these factors, which were known at the time of the Decisions, we anticipated that such Petitions would be necessary and explicitly authorized their filing in Ordering Paragraph 6 of both Decisions. While it is possible that some portions of the

requested relief could have been presented at an earlier date, the benefits of considering them in a consolidated manner, rather than piecemeal, justify the delay.

Hence, we conclude that SCE's Petitions, viewed together with SCE's Response, comply with the requirements of Rule 16.4.

#### **4. Requested Relief in Petition for Modification of D.07-03-012**

The Petition for Modification of D.07-03-012 ('012 Petition) sets forth two distinct requests for relief. First, the '012 Petition requests modification of a requirement that SCE use 20-foot taller structures between miles 20.3 and 25.6 of Segment 1 as low-cost Electromagnetic Field (EMF) mitigation.<sup>3</sup> Second, the '012 Petition requests: (a) an adjustment to the Commission's determination of the maximum cost for Segment 1; and (b) a consolidated budget for the entire approved ATP.<sup>4</sup> This second set of issues will be discussed in Section 6 below.

With regard to the EMF mitigation required by D.07-03-012, SCE contends that it has already provided adequate low-cost/no-cost EMF mitigation consistent with Commission policy as set forth in D.06-01-042 and D.93-11-013. SCE cites in support:

1. Use of double-circuit construction for the proposed Antelope-Pardee 500 kV transmission line and the existing Pardee-Vincent 500 kV transmission line between miles 20.3 and 25.6.
2. Optimal phasing of the proposed Antelope-Pardee 500 kV transmission line and the existing Pardee-Vincent 500 kV

---

<sup>3</sup> '012 Petition at 2-8.

<sup>4</sup> '012 Petition at 8-20.

transmission line to reduce magnetic fields between miles 20.3 and 25.6.

3. Building the Antelope-Pardee 500 kV transmission line and the existing Pardee-Vincent 500 kV transmission line on double-circuit towers in the position that is currently occupied by the Pardee-Vincent 500 kV transmission line on the Pardee-Vincent 500 kV transmission line right-of-way between miles 20.3 and 25.6. This increases the distance of the new transmission line to the north edge of the right-of-way and increases conductor height compared with single-circuit construction.
4. Modification and phasing of the existing Orion 16 kV line for magnetic field reduction between miles 22.3 and 25.6.<sup>5</sup>

SCE states that these mitigation measures far exceed the Commission's guideline of a 15% reduction in EMF for low-cost mitigation.<sup>6</sup> In addition, SCE contends that the use of 20-foot taller structures would be ineffective in reducing EMF given these other mitigation measures.

The ALJ and Commission staff (Staff) have reviewed SCE's contentions and have determined that they are supported by the record and the '012 Petition pleadings. Therefore, we find that the existing mitigation measures provide sufficient low-cost EMF mitigation, and modify D.07-03-012 to remove the requirement of the taller towers between miles 20.3 and 25.6.

## **5. Requested Relief in Petition for Modification of D.07-03-045**

The Petition for Modification of D.07-03-045 ('045 Petition) sets forth two distinct requests for relief. First, the '045 Petition requests: (a) an adjustment to

---

<sup>5</sup> '012 Petition at 3.

<sup>6</sup> '012 Petition at 4-5.

the Commission's determinations of the maximum cost for Segments 2 and 3; and (b) a consolidated budget for the entire approved ATP.<sup>7</sup> This set of issues will be discussed in further detail in Section 6 below.

Second, the '045 Petition requests minor modification to the route of Segment 3 to accommodate requests from wind resource developers whose project details were not known at the time that the approved alignment was developed, and for additional engineering design reasons.<sup>8</sup> These modifications are within the study area boundaries previously studied, and therefore these modifications do not require additional environmental studies.<sup>9</sup>

More specifically, the modifications are:

- The single-circuit line leaving Substation 2 from approximately mile S3-0 to S3-2.3; the new route deviates from the proposed route by up to approximately 1,000 feet.
- The single-circuit 220 kV line from approximately mile S3-3.9 to mile S3-7.2; the new route deviates from the proposed route by up to approximately 1,000 feet.
- Substation One: Rotate 90 degrees to facilitate the connection of 500 kV and 220 kV lines.
- The single-circuit 500 kV line from approximately mile S3-10 to mile S3-13.5; the new route deviates from the proposed route by up to approximately 1.5 miles. This change accommodates a request from Oak Creek Energy to avoid interfering with wind turbine locations.
- The single-circuit 500 kV line from approximately mile S3-23 to mile S3-26; the new route deviates from the proposed route by approximately 100 feet.

---

<sup>7</sup> '045 Petition at 2-14.

<sup>8</sup> '045 Petition at 14-15.

<sup>9</sup> '045 Petition at 14.



- The single-circuit 500 kV line from approximately mile S3-33.4 to mile S3-33.8; the new route deviates from the proposed route by approximately 100 feet.
- Changes to several structures and structure heights for Segments 3A and 3B based on near-final engineering designs.<sup>10</sup>

The ALJ and Staff have reviewed SCE's contentions and have determined that they are supported by the record and the '045 Petition pleadings. Therefore, we find that these modifications are reasonable and are required either to provide more efficient access to renewable energy resources or to address engineering concerns.

## **6. Construction Costs for the Antelope Transmission Project**

SCE requested in both Petitions that the maximum reasonable and prudent costs (cost caps) of the projects authorized under the Decisions be increased, and that the total maximum costs for ATP Segments 1, 2, and 3 be combined into a single maximum cost cap.

The ALJ consolidated the proceedings in order to allow a single decision to address the issue of consolidation of the total costs into a single maximum cost. We find that the proceedings and the maximum costs are properly consolidated here.

D.07-03-012 approving Segment 1 establishes a maximum cost for Segment 1 at \$92.5 million. D.07-03-045 approving Segments 2 and 3 establishes a maximum cost for Segment 2 at \$63 million and for Segment 3 at \$102.1 million. All maximum costs were calculated in 2005 dollars and included AFUDC,

---

<sup>10</sup> '045 Petition at 14-15 and Attachments A and B.

pension and benefits, and administrative and general expenditures.<sup>11</sup> Together, these maximum costs total \$257.6 million.

SCE requests the Commission to modify the total maximum cost to \$746 million in 2008 dollars, including pension and benefits and administrative and general expenditures, but excluding AFUDC.

SCE provides two primary reasons to justify this nearly three-fold increase in the maximum cost.

First, the ATP transmission lines were planned based upon anticipated new wind generation in the TWRA, and not upon actual filed interconnection requests, which contain information necessary to accurately estimate costs and construction schedules. Therefore, the total costs considered in the Decisions could not include a complete and total budget based upon final engineering design information. Indeed, the Decisions anticipated that some adjustments might need to be made that would either increase or decrease the costs.<sup>12</sup> In addition, SCE did not estimate increased costs for materials such as steel and concrete at the time of this Commission's Decisions on its applications, and these increased costs have led to increased construction costs beyond the contingency allowance already included in the original cost projections.<sup>13</sup>

---

<sup>11</sup> See Ordering Paragraph 5 in both D.07-03-012 and D.07-03-045. While those Ordering Paragraphs also reflect that the adopted maximum costs include estimates for AFUDC, such estimates for AFUDC were not included in the calculation of the maximum cost numbers, and so the inclusion of AFUDC in those Ordering Paragraphs was in error.

<sup>12</sup> See Ordering Paragraph 6 in both D.07-03-012 and D.07-03-045.

<sup>13</sup> '012 Petition at 11; '045 Petition at 4-5.

Second, the Decisions anticipated that the wind generation would come online at a future uncertain date. Therefore, the transmission lines were budgeted to be initially operated at 220 kV, but were designed, studied, and approved to be upgraded to operate at 500 kV at a future date. Assuming initial operation at the 220 kV level, with the option to go to 500 kV later, the Decisions established a maximum reasonable and prudent cost for all three segments totaling \$257.6 million.

Given subsequent interconnection requests cited in the Petitions, SCE is seeking to construct and operate the transmission facilities at the full 500 kV level. Some of these upgrades, specifically those associated with substation operations, were not included in the maximum costs authorized in the Decisions because the timing and magnitude of those costs was too speculative at the time of the development of the evidentiary record in the proceedings. SCE estimates in its Petitions that construction and operation of the transmission lines and associated substations at the higher 500 kV voltage, as opposed to 220 kV voltage, is \$746.0 million. This figure includes an expansion of the Antelope and Vincent substations and the construction of the Windhub substation, which are necessary to accommodate the 500 kV lines. SCE's latest cost estimates are attached to SCE's Amendment as Appendix A, and reflect that the bulk of the increased costs are related to the costs to upgrade these three substations to 500 kV operability.

Information in the Petitions initially appeared to conflict with information in the currently pending A.07-06-031, specifically with regard to substation upgrades related to Segment 9 of the Tehachapi Renewable Transmission Project (TRTP). Segment 9 of the TRTP consists of a series of upgrades to substations, including those included in the ATP. The Amendment provided clarification

and correction regarding certain entries in the cost support tables for the ATP and TRTP, and states that “the costs associated with the upgrades to 500 kV contained in SCE’s Petitions for Modification are only for Segments 1-3 work and do not duplicate the costs or work proposed as part of Segment 9 in A.07-06-031.”<sup>14</sup>

The ALJ and Staff have reviewed SCE’s contentions, as well as the additional cost information provided along with the ‘012 Petition and the ‘045 Petition and have determined that SCE’s contentions are supported by the record and the pleadings. Consequently, we conclude that the requested revised maximum cost of \$746 million in 2008 dollars for ATP Segments 1, 2 and 3 is reasonable and prudent in light of the changed conditions and the upgrade of the projects to 500 kV capability and operation.

We approve this increased maximum cost pursuant to Public Utilities Code Section 1005.5. In authorizing this maximum cost we fully expect that in any SCE filings at the Federal Energy Regulatory Commission (FERC) seeking cost recovery for these projects will not be in excess of the maximum cost specified herein without prior notice to the Commission regarding the reasons for any inconsistency between the authorized maximum cost and its FERC filing. We further expect that any future filings in these proceedings, or in other proceedings with projects based on need pursuant to Public Utilities Code § 399.2.5 or any other renewable need should more fully address the value of those projects to California ratepayers and their place in economically rational renewable procurement policies..

---

<sup>14</sup> Amendment at 9.

## 7. Treatment of AFUDC

The cost estimates in the Petitions do not include AFUDC. As explained in SCE's Amendment, AFUDC represents the estimated cost of debt and equity funds that finance utility plant construction. AFUDC is capitalized as part of the overall cost of plant. Thus, when new plant goes into service, the total capital-related costs, including capitalized finance charges, are included in rate base.<sup>15</sup>

A utility may apply to FERC for Construction Work In Progress (CWIP) incentive rate treatment to recover financing charges in current rates while plant is under construction, in lieu of later collecting AFUDC. SCE requests that AFUDC not be included in the maximum cost, and SCE states in its Petitions and Amendment that "to the extent SCE recovers its cost of capital through CWIP in Rate Base, such cost of capital will not be accrued through AFUDC. Recovering SCE's construction financing charges through CWIP in Rate Base replaces the actual AFUDC that otherwise would be accrued to the project"<sup>16</sup>

FERC has jurisdiction to determine the collection of AFUDC and CWIP. On November 15, 2007, FERC authorized SCE to collect CWIP for ATP Segments 1, 2, and 3.<sup>17</sup> Since that ruling, SCE has applied for and is collecting CWIP for these projects. SCE's Amendment makes clear that "[b]ecause only a few project elements within the entire scope of TRTP Segments 1-3 would likely incur AFUDC, the vast majority of financing costs [will] be recovered through the CWIP Ratemaking Mechanism assuming the FERC approves the costs to include in Transmission rates. The actual AFUDC anticipated to be collected through

---

<sup>15</sup> Amendment at 5.

<sup>16</sup> Amendment at 4. Emphasis in the original.

<sup>17</sup> 121 FERC ¶ 61,168 (November 16, 2007) at 2.

CPUC and FERC rates for Segments 1 through 3 is approximately four percent of the total financing estimate.”<sup>18</sup> We understand that this “four percent” may not be allowed by FERC because FERC rules do not allow CWIP recovery for transmission-related communications systems. Consequently, with regard to the four percent estimate, SCE states in footnote 10 of the Amendment that “[i]f the FERC does not approve the eligible Project costs, then SCE will request recovery through CPUC rates under California Public Utilities Code § 399.2.5, and the actual AFUDC amount would be higher.”<sup>19</sup> Hence, even though SCE prefers to recover its construction financing costs through CWIP, SCE states that it may eventually seek recovery of a small amount of unrecovered costs directly from ratepayers at a later date, based upon decisions made by FERC.

SCE has provided estimates for AFUDC in both the Petitions and the Amendment. The Amendment modified the initial estimates for AFUDC presented in the Petitions, with the most recent estimate being \$77.3 million. No party has contested this estimate. Consequently, we find that \$77.3 million is a reasonable current estimate for AFUDC, and is an appropriate proxy for financing costs here. Pursuant to FERC order, SCE is already receiving CWIP incentive rate treatment for Segments 1, 2, and 3 in lieu of collecting the \$77.3 million in AFUDC, and will seek retail rate recovery from the Commission for those costs – anticipated to be small – that FERC does not allow to be included in CWIP.

---

<sup>18</sup> Amendment at 4.

<sup>19</sup> Amendment at 4, note 10.

Based upon SCE's explanations in the Petitions and the Amendment, we do not include this AFUDC estimate in the maximum cost. However, because the cost of financing is a significant portion of the costs of a transmission project which is ultimately recovered from ratepayers, we find that such financing costs, either in the form of CWIP or AFUDC, should be fully disclosed in Commission proceedings prior to project approval.

## **8. Conclusion**

The Petitions, as supplemented pursuant to ALJ Ruling, are procedurally proper. The relief requested in the Petitions is based upon persuasive new information. We conclude that the proposed modifications set forth in the Petitions should be adopted, as adjusted herein. Therefore, we modify D.07-03-012 as set forth in Attachment 1, and we modify D.07-03-045 as set forth in Attachment 2.

## **9. Comments on Proposed Decision**

The proposed decision of the ALJ in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed by SCE on September 14, 2009, and modifications were made to address those comments, as well as to resolve typographical, clarifying, and other non-substantive matters. No reply comments were filed.

## **10. Assignment of Proceedings**

Dian M. Grueneich is the assigned Commissioner and Victoria S. Kolakowski is the assigned ALJ in these proceedings.

### **Findings of Fact**

1. The Commission approved SCE's application in A.04-12-007 for a CPCN for the Antelope-Pardee 500 kV transmission line in D.07-03-012, mailed March 6, 2007. This project is Segment 1 of the ATP.

2. The Commission approved SCE's application in A.04-12-008 for a CPCN for the Antelope-Vincent and Antelope-Tehachapi 500 kV transmission lines in D.07-03-045, mailed March 15, 2007. These lines are Segments 2 and 3, respectively, of the ATP.

3. SCE filed separate Petitions for Modification for the Decisions on July 18, 2008.

4. ALJ Victoria Kolakowski issued a ruling on October 6, 2008, consolidating A.04-12-007 and A.04-12-008, because the requested relief in the Petitions included a consolidation of the project costs for purposes of establishing the maximum total reasonable and prudent costs of construction. ALJ Kolakowski's ruling also directed SCE to provide supplemental language sufficient to meet Rule 16.4(b)'s requirement to provide specific proposed modified language.

5. SCE filed a response to ALJ Kolakowski's ruling on October 6, 2008, providing the requested supplemental language sufficient to satisfy Rule 16.4(b).

6. A proposed decision was issued on February 9, 2009, and was withdrawn in anticipation of receipt from SCE of corrected estimates of AFUDC and other relevant information.

7. SCE filed an amendment to the Petition (Amendment) on April 28, 2009 revising its AFUDC estimate and clarifying inconsistencies between this proceeding and Application 07-06-031.

8. SCE's Petitions were anticipated by the Decisions in Ordering Paragraph 6 of each decision. The delay in filing beyond one year from the issuance of the



Decisions was necessitated by the development of refined engineering designs and the receipt of additional interconnection requests.

9. SCE requests modification of a requirement of taller towers in D.07-03-012, which was required as a mitigation measure for EMFs. SCE has already provided adequate low-cost/no-cost EMF mitigation far in excess of the Commission's guideline of a 15% EMF reduction, and the taller towers would be ineffective in reducing EMF given those other mitigation measures.

10. SCE has requested reasonable minor adjustments to the route of Segment 3 to accommodate requests from wind resource developers, whose project details were unknown at the time when the approved alignment was developed, and for additional engineering design reasons. These modifications are within the study area boundaries previously studied, and do not require additional environmental studies.

11. The ATP projects were planned to support wind resource generation not sufficiently developed to allow for detailed study. As additional interconnection requests have been received, SCE has been able to develop more accurate cost projections.

12. Since the evidentiary record for the ATP projects was developed, construction costs have risen beyond those anticipated by SCE.

13. The ATP projects were originally proposed and budgeted to be operated at 220 kV, and to be operated at 500 kV when sufficient resource interconnection requests were received.

14. The environmental review considered the impacts of operation of the ATP projects at the full 500 kV voltages, and hence no additional environmental review is necessary.

15. The maximum reasonable and prudent construction costs for all three segments of the ATP in D.07-03-012 and D.07-03-045 was determined to be \$257.6 million in 2005 dollars, including pension and benefits, and administrative and general expenditures, but excluding AFUDC.

16. The ATP projects constructed and operated at the full 500 kV voltages will have a combined maximum reasonable and prudent construction cost of \$746.0 million in 2008 dollars, including pension and benefits, and administrative and general expenditures, but excluding AFUDC.

17. A reasonable estimate of AFUDC for ATP Segments 1, 2 and 3 is \$77.3 million in nominal dollars.

18. Pursuant to FERC order, SCE is already receiving CWIP incentive rate treatment for Segments 1, 2, and 3 in lieu of collecting the \$77.3 million in AFUDC, and will seek retail rate recovery from the Commission for those costs – anticipated to be small - that FERC does not allow to be included in CWIP.

19. This AFUDC estimate is not included in the cost cap. However, such financing costs, either in the form of CWIP or AFUDC, should be fully disclosed in Commission proceedings prior to project approval.

20. None of the upgrades necessary to operate at 500 kV, and none of the costs for those upgrades, duplicate the substation upgrades or costs currently being considered in A.07-06-031 regarding the TRTP.

21. The modifications necessary for D.07-03-012 are in Attachment 1.

22. The modifications necessary for D.07-03-045 are in Attachment 2.

23. A.04-12-007 and A.04-12-008 should be closed.

### **Conclusions of Law**

1. SCE's Petitions, as supplemented by SCE's response of November 5, 2008 and as amended by SCE on April 28, 2009, satisfy the requirements of Rule 16.4.

2. ALJ Kolakowski's ruling consolidating the proceedings was correct and appropriate.

3. The existing mitigation measures for Segment 1 provide adequate EMF mitigation to meet Commission guidelines, and the taller towers ordered in D.07-03-012 for a portion of the line are not necessary. This tower height requirement should be modified.

4. SCE's requested modifications to the route of Segment 3 are needed to accommodate requests from wind resource developers and for additional engineering design reasons, and should be approved.

5. The approved maximum costs for the three segments of the ATP should be combined.

6. The approved maximum costs should be modified to reflect the new total of \$746.0 million in 2008 dollars, including pension and benefits, and administrative and general expenditures, but excluding AFUDC.

7. The Commission should approve this increased cost cap pursuant to Public Utilities Code Section 1005.5. In authorizing this cost cap the Commission should fully expect that SCE filings at FERC seeking cost recovery for these projects will not be in excess of the maximum costs specified herein without prior notice to the Commission regarding the reasons for any inconsistency between the authorized maximum cost and its FERC filing.

8. A reasonable estimate of AFUDC for ATP Segments 1, 2 and 3 is \$77.3 million in nominal dollars.

9. Pursuant to FERC order, SCE is already receiving CWIP incentive rate treatment for Segments 1, 2, and 3 in lieu of collecting the \$77.3 million in AFUDC, and will seek retail rate recovery from the Commission for those costs - anticipated to be small - that FERC does not allow to be included in CWIP.

10. Cost estimates submitted to the Commission should include AFUDC or another proxy for financing costs, and should also include estimates for construction costs increases. AFUDC will not be included in the maximum cost adopted by the Commission, but will be included in the Commission's factual findings to provide full disclosure to the Commission and public regarding the potential ratepayer exposure to construction financing costs.

11. A.04-12-007 and A.04-12-008 should be closed.

12. This order should be effective immediately.

## **O R D E R**

### **IT IS ORDERED** that:

1. Decision (D.) 07-03-012 is modified as shown in Attachment 1. All other language in D.07-03-012 shall be read and understood to conform to those modifications.

2. D.07-03-045 is modified as shown in Attachment 2. All other language in D.07-03-045 shall be read and understood to conform to those modifications.

3. Southern California Edison shall not seek ratepayer funding in excess of the maximum reasonable and prudent costs (maximum cost) specified herein in any filing at the Federal Energy Regulatory Commission without prior notice to the Commission regarding the reasons for any inconsistency between the authorized maximum cost and its FERC filing.

4. Applications (A.) 04-12-007 and A.04-07-008 are closed.

This order is effective today.

Dated September 24, 2009, at San Francisco, California.

MICHAEL R. PEEVEY  
President  
DIAN M. GRUENEICH  
JOHN A. BOHN  
RACHELLE B. CHONG  
TIMOTHY ALAN SIMON  
Commissioners

**Attachment 1**

**Redline of Modifications to Affected Portions of D.07-03-012**

## REDLINES OF MODIFICATIONS TO D.07-03-012 (footnotes omitted)

### I. EMF Issues

#### B. EMF Management Plan for the Antelope-Pardee Transmission Project

Consistent with its obligations under G.O. 131-D, SCE included, with its application, an EMF Field Management Plan.<sup>21</sup> In this plan, SCE proposes to incorporate various no-cost mitigation measures to reduce field levels. It also identifies, but does not propose to adopt, certain low-cost mitigation measures. The proposed plan does not analyze potential impacts across each of the various alternative route alignments identified in the Draft EIR/EIS and carried forward in the FEIR.

As discussed elsewhere in this order, we authorize SCE to construct the Antelope-Pardee Transmission Project along an alignment that differs significantly from that originally proposed by the utility. With these modifications to the Antelope-Pardee Transmission Project, SCE should amend its EMF management plan as needed to apply its no-cost EMF management techniques to the approved project.

Consistent with D.06-01-042 and D.93-11-013, we also require that SCE undertake low-cost EMF mitigation. ~~Where such design modifications are consistent with our low-cost policy, SCE should increase tower and conductor heights by 20 feet along any portions of the transmission corridor where there are residences within 50 feet of the side of the right of way closest to the new 500 kV transmission lines. SCE has established that this design modification would reduce magnetic fields by 15% at the edge of the right of way.~~

~~In its existing study, SCE rejects this option for unspecified environmental and engineering reasons. We do not believe that the potential conflict of this low-cost EMF mitigation measure with environmental mitigation efforts would be significant. Few of the areas where EMF mitigation will occur are completely flat, and the towers and conductors would be difficult to line up due to even small elevation changes between existing and new towers. With tower heights of 150 feet, a 20-foot height increase for towers and conductors is unlikely to be noticeable to most observers.~~

~~We require that SCE apply this low-cost EMF mitigation measure where there are existing residential properties and also where development of new residences is underway at the time that SCE undertakes final project design. Consistent with guidance in D.06-01-042, we do not require that SCE attempt to determine possible future uses of undeveloped land. If applicable, SCE would not be required to raise tower heights near any residential properties that will be acquired and converted from residential use in order to allow construction of the Antelope-Pardee Transmission Project.~~

The cost of the adopted EMF mitigation measure may be less than SCE estimated along its proposed route. In any event, it is likely that the cost will be much less than the Commission's 4% benchmark for low-cost EMF mitigation. As described in this order, SCE may seek an increase in the approved maximum cost of the Antelope-Pardee Transmission Project if the adopted low-cost EMF mitigation measure causes the cost cap to be exceeded.

++++  
+



## Findings of Fact

11. ~~The initial cost of the Antelope-Pardee Transmission (Antelope Segment 1), capped at \$92.5 million, is a small fraction of the total cost of the entire project needed to bring Tehachapi wind to retail customers.~~

31. ~~It is reasonable to modify SCE's preliminary EMF management plan for the project, as described in Section VI.~~

32. ~~The maximum reasonable and prudent cost for the approved project is \$92.5 million.~~ The maximum reasonable and prudent cost for the Antelope-Pardee Transmission Project (Antelope Segment 1) and Tehachapi-Vincent Transmission Project (Antelope Segments 2 and 3) is \$746.0 million in 2008 dollars, including pension and benefits and administrative and general expenditures, but excluding Allowance for Funds Used During Construction (AFUDC), assuming construction and operation at the full 500 kV level for the appropriate segments.

33. A reasonable estimate of AFUDC for ATP Segments 1, 2 and 3 is \$77.3 million in nominal dollars.

34. Pursuant to FERC order, SCE is already receiving CWIP incentive rate treatment for Segments 1, 2, and 3 in lieu of collecting the \$77.3 million in AFUDC, and will seek retail rate recovery from the Commission for those costs - anticipated to be small - that FERC does not allow to be included in CWIP.

## Conclusions of Law

13. ~~SCE's preliminary EMF management plan for the Antelope-Pardee Transmission Project should be modified as described in Section VI and the project should be constructed consistent with that modified plan.~~

30. ~~The Commission should approve a maximum reasonable and prudent cost of \$92.5 million.~~ The Commission should approve a maximum reasonable and

prudent cost for the Antelope-Pardee Transmission Project (Antelope Segment 1) and Tehachapi-Vincent Transmission Project (Antelope Segments 2 and 3) of \$746.0 million in 2008 dollars, including pension and benefits and administrative and general expenditures, but excluding AFUDC, assuming construction and operation at the full 500 kV level for the appropriate segments.

31. Cost estimates submitted to the Commission should include AFUDC or another proxy for financing costs, and should also include estimates for construction costs increases. AFUDC will not be included in the maximum cost adopted by the Commission, but will be included in the Commission's factual findings to provide full disclosure to the Commission and public regarding the potential ratepayer exposure to construction financing costs.

32. The Commission should approve this increased cost cap pursuant to Public Utilities Code Section 1005.5. In authorizing this cost cap the Commission should fully expect that SCE filings at FERC seeking cost recovery for these projects will not be in excess of the maximum costs specified herein without prior notice to the Commission regarding the reasons for any inconsistency between the authorized maximum cost and its FERC filing.

## **O R D E R**

**IT IS ORDERED** that:

~~3. Modifications to SCE's preliminary electric and magnetic field (EMF) plan for the Antelope-Pardee Transmission Project are adopted as described in Section VI of this order.~~

~~4. SCE shall, as a condition of approval, build the project in accordance with these modifications.~~

5. ~~Pursuant to Pub. Util. Code § 1005.5(a), the maximum cost (in 2005 dollars) determined to be reasonable and prudent for the Antelope-Pardee Project, including Allowance for Funds Used During Construction, pension and benefits, and administrative & general expenditures, is \$92.5 million.~~ Pursuant to Pub. Util. Code § 1005.5(a), the maximum reasonable and prudent cost (in 2008 dollars) for the Antelope-Pardee Transmission Project (Antelope Segment 1) and Tehachapi-Vincent Transmission Project (Antelope Segments 2 and 3) is \$746.0 million, including pension and benefits and administrative and general expenditures, but excluding Allowance for Funds Used During Construction, assuming construction and operation at the full 500 kV level for the appropriate segments.
16. Southern California Edison shall not seek ratepayer funding in excess of the maximum cost specified herein in any filing at the Federal Energy Regulatory Commission without prior notice to the Commission regarding the reasons for any inconsistency between the authorized maximum cost and its FERC filing.
- ~~16.~~ 17. Application 04-12-007 is closed.

**(END OF ATTACHMENT 1)**

**Attachment 2**

**Redline of Modifications to Affected Portions of D.07-03-045**

## REDLINES OF MODIFICATIONS TO D.07-03-045

### Findings of Fact

11. ~~The initial cost of the Tehachapi-Vincent Transmission Project is capped at \$63 million for Segment 2 and \$102.1 million for Segment 3.~~

30. ~~The maximum reasonable and prudent cost for the approved project is \$63 million for Segment 2 and \$102.1 million for Segment 3, as discussed in Section X above.~~ The maximum reasonable and prudent cost for the Antelope-Pardee Transmission Project (Antelope Segment 1) and Tehachapi-Vincent Transmission Project (Antelope Segments 2 and 3) is \$746.0 million in 2008 dollars, including pension and benefits and administrative and general expenditures, but excluding Allowance for Funds Used During Construction (AFUDC), assuming construction and operation at the full 500 kV level for the appropriate segments.

31. A reasonable estimate of AFUDC for ATP Segments 1, 2 and 3 is \$77.3 million in nominal dollars.

32. Pursuant to FERC order, SCE is already receiving CWIP incentive rate treatment for Segments 1, 2, and 3 in lieu of collecting the \$77.3 million in AFUDC, and will seek retail rate recovery from the Commission for those costs – anticipated to be small - that FERC does not allow to be included in CWIP.

### Conclusions of Law

28. ~~The Commission should approve a maximum reasonable and prudent cost of 63 million for Segment 2 and \$102.1 million for Segment 3.~~ The Commission should approve a maximum reasonable and prudent cost for the Antelope-Pardee Transmission Project (Antelope Segment 1) and Tehachapi-Vincent Transmission Project (Antelope Segments 2 and 3) of \$746.0 million in 2008

dollars, including pension and benefits and administrative and general expenditures, but excluding AFUDC, assuming construction and operation at the full 500 kV level for the appropriate segments.

29. Cost estimates submitted to the Commission should include AFUDC or another proxy for financing costs, and should also include estimates for construction costs increases. AFUDC will not be included in the maximum cost adopted by the Commission, but will be included in the Commission's factual findings to provide full disclosure to the Commission and public regarding the potential ratepayer exposure to construction financing costs.

30. The Commission should approve this increased cost cap pursuant to Public Utilities Code Section 1005.5. In authorizing this cost cap the Commission should fully expect that SCE filings at FERC seeking cost recovery for these projects will not be in excess of the maximum costs specified herein without prior notice to the Commission regarding the reasons for any inconsistency between the authorized maximum cost and its FERC filing.

## O R D E R

### IT IS ORDERED that:

1. A Certificate of Public Convenience and Necessity is granted to Southern Edison Company (SCE) to construct the Tehachapi-Vincent Transmission Project, following the route proposed by SCE, as modified by Option A, as described in the Final EIR, and as subsequently modified by the set of maps set forth in Attachment A to SCE's July 18, 1008 Petition for Modification of D.07-03-045.
2. SCE shall, as a condition of approval, build the project in accordance with these modifications as subsequently modified by the set of maps set forth in Attachment A and tables of changes to structure height and types set forth in Attachment B to SCE's July 18, 2008 Petition for Modification of D.07-03-045.
5. ~~Pursuant to Pub. Util. Code § 1005.5(a), the maximum cost (in 2005 dollars) determined to be reasonable and prudent for the Antelope-Pardee Project, including Allowance for Funds Used During Construction, pension and benefits, and administrative & general expenditures, is \$63 million for Segment 2 and \$102.1 million for Segment 3.~~ Pursuant to Pub. Util. Code § 1005.5(a), the maximum reasonable and prudent cost (in 2008 dollars) for the Antelope-Pardee Transmission Project (Antelope Segment 1) and Tehachapi-Vincent Transmission Project (Antelope Segments 2 and 3) is \$746.0 million, including pension and benefits and administrative and general expenditures, but excluding Allowance for Funds Used During Construction, assuming construction and operation at the full 500 kV level for the appropriate segments.
15. Southern California Edison shall not seek ratepayer funding in excess of the maximum cost specified herein in any filing at the Federal Energy Regulatory

A.04-12-007, A.04-12-008 ALJ/VSK/tcg

Commission without prior notice to the Commission regarding the reasons for any inconsistency between the authorized maximum cost and its FERC filing.  
15. 16. Application 04-12-008 is closed.

**(END OF ATTACHMENT 2)**