PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION

Agenda ID 15937 RESOLUTION E-4883 October 26, 2017

<u>R E S O L U T I O N</u>

Resolution E-4883. Liberty Utilities (Liberty CalPeco Electric) LLC Verification of the Attainment of the 89 MW Load Trigger for Phase 2 of the Line 625/650 Upgrade Project Pursuant to D.15-03-020. Request for Approval under Advice Letter (AL) 64-E.

PROPOSED OUTCOME:

• This Resolution denies Liberty Utilities (Liberty CalPeco Electric) LLC (Liberty CalPeco) authorization to commence with construction of Phase 2 of the NLT System Upgrade Project, Phase 2. The protest by NTCAA is valid. Commission approval of Liberty CalPeco AL 64-E is denied.

SAFETY CONSIDERATIONS:

• Effective administration of Liberty CalPeco is part of the responsibility of Liberty Utilities to meet their obligations under Public Utilities Code Section 451 to provide services that promote the safety, health, comfort, and convenience of their patrons, employees and the public.

ESTIMATED COST:

• Liberty CalPeco has estimated the cost of Phase 2 construction at approximately \$9 million.

By Advice Letter 64-E, filed on October 14, 2016.

SUMMARY

This Resolution denies Liberty CalPeco's AL 64-E, with an effective date of today. On October 14, 2016 Liberty CalPeco filed Advice Letter 64-E, requesting approval pursuant to D. D.15-03-02015-03-020 to construct Phase 2 of the Line 625/650 North Lake Tahoe Powerline Upgrade Project (NLT Upgrade Project). The Decision ordered that upon approaching the load trigger of 89 MW, Liberty

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CalPeco would conduct a "network study" to provide verification that peak load had reached a "trigger point" of 89 MW, and to further verify that at the 89 MW demand level the NLT System would experience reliability issues that could be solved by construction of Phase 2 of the NLT Upgrade Project.

Pursuant to D.15-03-020, Liberty engaged the services of Ascension Power Engineering (Ascension) to perform the new network study. The Ascension network study determined that the NLT system experienced peak demand of 88.7 MW during 2015-2016 on December 31, 2015 at 17:55 hours. D. 15-03-020 authorized the CPUC's Energy Division (Energy Division) to conduct an independent analysis to verify the Liberty findings. To effectively review the Ascension study, the Energy Division sought expertise from the California Energy Commission (CEC). On July 20, 2017, the CEC's Siting Transmission and Environmental Protection Division provided the Energy Division with a Staff Assessment of the Ascension network study attached to AL 64-E which documented the attainment of the 89 MW load trigger. However, the CEC Staff Assessment determined that at the 89 MW load level, no significant system reliability issues were identified that required mitigation by construction of Phase 2.

BACKGROUND

On March 26, 2015, CPUC D.15-03-020 granted Liberty CalPeco a permit to construct Phase 1 of the NLT Upgrade Project. Phase I approval allowed the immediate upgrade of the 60 kV 650 Line from Truckee to Kings Beach by installing new tubular steel power poles and new conductor rated to eventually operate at 120 kV. Liberty CalPeco commenced Phase I construction in spring of 2016, and completed construction in late fall of that year. A future Phase II approval would allow the upgrade of three substations and enable the 650 Line to operate at 120 kV.

D.15-03-020 conditioned approval for Phase 2 construction on completion of a new network study to accurately identify the peak load trigger points that signal reliability criteria violations and the need to commence with Phase 2. This conditioned approval approach was determined to be necessary because intervenors in A.10-08-024 identified critical errors in the original network study supporting Liberty CalPeco's application for a Permit to Construct (PTC) the Line NLT Upgrade Project. While skeptical of the accuracy of the original

network study, D.15-03-020 did elect to use the study's 89 MW system peak load as the point in which a new network study would be initiated.

NOTICE

Notice of AL 64-E was made by publication in the Commission's Daily Calendar. Liberty CalPeco states that a copy of the Advice Letter was mailed and distributed in accordance with Section 4 of General Order 96-B.

PROTESTS

Advice Letter 64-E was timely protested by the North Tahoe Citizen Action Alliance (NTCAA) on November 3, 2016. NTCAA take issue with Liberty CalPeco's Ascension network study finding that the "analysis, calculations, and data in the advice letter contained material errors and omissions. NTCAA reiterates their belief that the 89 MW "trigger point" is erroneous and is based on the discredited ZGlobal Addendum Study and ZGlobal's 2011 Validation Study contained in Liberty CalPeco's application for a PTC. NTCAA stresses that the intent of D.15-03-020 was to require a new, complete and accurate network study to determine the proper trigger points. NTCAA points out that if reaching 89 MW peak load was the only technical prerequisite, there would have been no reason for the Commission to require a new network study. NTCAA cites numerous passages in D.15-03-020 that support this conclusion.

NTCAA alleges that Liberty CalPeco violated the Commission's D.15-03-020 order 2 by presenting the Ascension network study which does not document and justify all data and assumptions for the new network study including, but not limited to the following errors and omissions: exclusion of the Kings Beach backup diesel generator plant from the model; exclusion of the system's interties to Incline Village and South Lake Tahoe; failure to include infrastructure upgrades that would have a material effect on N-1 conditions; load transfer to NV Energy and their ownership within the model; and load data assumptions.

Finally, NTCAA argues that D.15-03-020 expected that the new network study would identify accurate, defensible peak load triggers that could be used by the Commission to approve Phase 2 of the NLT Upgrade Project. NTCAA argues that Liberty CalPeco used the order of a new network study to simply justify the discredited 89 MW trigger and thus failed to provide the Commission the deliverable it ordered.

Liberty CalPeco Reply to NTCAA

On November 10, 2016 Liberty CalPeco responded to the protest of NTCAA. Liberty CalPeco claims that the bulk of the NTCAA Protest impermissibly raises issues outside the scope of AL 64-E and which are irrelevant to the three preconditions of the D.15-03-020.

Liberty CalPeco reports that Phase 1 construction is complete. With respect to Phase 2 and Phase 3 approval Liberty CalPeco identifies the three key requirements listed in D.15-03-020 as preconditions to commencing construction on these subsequent phases:

- 1) Verification that load growth on the North Tahoe System is approaching 89 MW;
- 2) Perform a new network study to verify load growth predicates and that load growth outside the system is not the basis for meeting trigger points;
- 3) Submit a Tier 2 Advice Letter.

According to Liberty CalPeco the most critical aspect of D.15-03-020 is the requirement that NLT System load reach the 89 MW 'trigger point" for Phase 1 approval and 100MW for Phase 2 approval. Liberty CalPeco points out that the FEIR assessed the environmental impact of all three phases and D.15-03-020 granted the authority to commence construction on Phase 2 and 3 upon demonstration that the peak load triggers are attained as the of the period the new facilities are operational.

Liberty CalPeco claims that NTCAA's insistence that the 89 and 100MW triggers should be reevaluated are wrong, pointing out that the MW values for these trigger points have been used consistently in the EIR analysis, and D.15-03-020 specifically incorporates the triggers into Ordering Paragraph 1(b) and 1(c). Accordingly, Liberty CalPeco asserts that the need to establish new triggering points is also wrong and the NTCAA protest should be rejected and AL 64-E timely approved.

Liberty CalPeco asserts that the Ascension Network study justified and documented all data and assumptions, and presents the requisite power flow plots for the new network study. Liberty CalPeco rejects NTCAA's assertion that he Ascension network study predetermined the validity of the 89 MW Phase 2 trigger point. Liberty CalPeco reports that the sum total of the actual peak load

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demand recorded on December 31, 2015 was 88.7 MW and the Ascension network study assessed the 88.7 MW of peak load distributed among the substations in the same manner experienced on December 31, 2015 and determined that the load limit exceeded the reliable limit of the North Tahoe System, validating that the Phase 2 improvements would be necessary.

The Ascension network study explains that Liberty CalPeco's ability to rely on the Kings Beach Diesels is significantly restricted by the King's Beach Diesels environmental permit. Liberty CalPeco's reports their use of this resource is limited to 360 machine hours in a calendar year, half of the permitted 720 machine-hours shared equally between Liberty CalPeco and NV Energy. Given the presences of six generating units, 360 machine hours restricts the continuous usage of the facility to only one 2-1/2 day period of plant operation each calendar year. Liberty CalPeco claims that by starting and loading sufficient diesel units to be prepared for and avoid an N-1 contingency problem, the allocation of the diesels would be rapidly exhausted.

Liberty CalPeco responded to NTCAA's challenge of Ascension's assessment of repair and restoration time for line outages by pointing out that the principals at Ascension have more than 15 years of experience managing electric utility operations. Ascension has managed electric utility operations across Nevada and eastern California, including the NLT System itself during the period of Sierra Pacific Power Company ownership. Ascension has managed numerous restoration efforts after fires and storms, and has the appropriate background and expertise to assess repair and restoration times for outages. Accordingly, Liberty CalPeco asserts that lengthy outages durations in mountains terrain are a fact. Ascension's determination to not rely on the Kings Beach diesels in the network study is reasonable given the expected length of outages and the limited hours of diesel generation available.

In response to NTCAA allegations that Ascension incorrectly modeled reactive power injection at Kings Beach, Liberty CalPeco points out that the two 3-MVAR sources depicted in the Ascension network study model represent the capacitor banks at the Brockway substation, which for model simplicity have been represented at the Kings Beach 60kV bus along with the Brockway load.

In response to NTCAA allegations that the Ascension network study should have included distribution ties to Incline Village and South Lake Tahoe, Liberty CalPeco assert that NTCAA misconstrues those distribution connections. Liberty

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CalPeco defends the Ascension network study modeling as customary and representative of prudent utility practice, and necessary to avoid study complications. Liberty CalPeco emphasizes that while NV Energy has confirmed its willingness to provide electricity in an "emergency", and on an "as available" basis, Liberty CalPeco can't consider NV Energy a source for firm backup from Incline Village.

Liberty CalPeco reports that the distribution tie to South Lake Tahoe is extremely limited in its capacity as only one line connects Meyers with Tahoe City. Accordingly, the Ascension network study does not assume the system interties to Incline Village and South Lake Tahoe will be available to enable Liberty CalPeco to meet peak loads.

Liberty Responded to the NTCAA allegation that the Ascension network study failed to take into account the load transfer capability of the upgraded 7203 and 7300 lines by arguing that NTCAA is attempting to propose project alternatives that were rejected in the FEIR.

Liberty next responded to the NTCAA questions regarding load transfers to NV Energy and facility ownership. Liberty CalPeco points out that the Ascension power flow model used in the Network study transfers 4 MW of load back to NV Energy's Incline Village substation and actually reduces load and relieves system constraints. Furthermore, Liberty CalPeco argues facility ownership has no bearing on the Ascension network study.

Liberty CalPeco responded to NTCAA allegations that Ascension did not document how it confirmed the winter line ratings and additional allegation that Ascension is in doubt regarding the rating of NVE's 120-60kV transformer at North Truckee substation. Liberty CalPeco claims that the ratings came from the 2004 Electric Power Distribution Handbook, Table 2.13. Liberty CalPeco acknowledge that Ascension employs individuals formerly employed by Sierra Pacific Power, but asserts that Ascension is an independent firm providing a range of services to a number of customers and that previous employment has no bearing upon the independent nature of the study.

Liberty CalPeco claims that the Ascension network study has verified load growth is approaching 89 MW and that load growth outside of its own system is not the basis for the increase. Furthermore, Liberty CalPeco suggests that

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Energy Division should disregard the historical load chart presented by NTCAA arguing that D.15-03-020 focused on future load growth.

Liberty CalPeco claims to have appropriately measured Liberty and non-Liberty customer demand at the eight substation load measuring points identified in D.15-03-020. Table 1 demonstrates that Liberty CalPeco's December 2015 peak load was 2.3 MW higher that the reference loads from the 2011 study, and shows that Liberty CalPeco's load in the 2015 peak hour was a higher percentage of the total load measured at the eight substations.

Lastly, Liberty CalPeco disputes the NTCAA claim that loads served radially from Truckee have no significant effect on power flows south of Truckee nor on voltages at Tahoe City and Northstar. Liberty CalPeco claims that Truckee loads have nearly one-to-one effect upon the loading on the North Truckee 120/60kV transformer, which becomes the limiting element in some of the critical contingency scenarios in the Ascension network study.

DISCUSSION

D.15-03-020 found the ZGlobal network studies that Liberty CalPeco used to support its Application for PTC (A.10-08-024) seeking CPUC approval to upgrade the NLT System were flawed. As a result, the actual NLT System peak demand levels remained uncertain. As important, the actual NLT System peak load capacity remained unclear. D.15-03-020 addresses the uncertainty by ordering a new network study – essentially a complete revision of the flawed ZGlobal studies – to resolve the conflicting claims being made by NTCAA and Liberty CalPeco regarding the need and timing of the NLT System Upgrade Project, Phase2.

However, there was general agreement between parties for the need to immediately construct Phase 1, (although NTCAA disputed the need for the Line 650 upgrade to continue beyond Northstar, or to include a "fold" of Line 650 at the Northstar Substation). Regardless, in D.15-03-020 the Commission approved the construction of Phase 1 of the NLT System Upgrade Project the rebuild of the 625 line from Truckee to the Kings Beach, including the Northstar fold.

In recognition of the unresolved dispute over the appropriate timing of Phase 2 and a later Phase 3 approval, D.15-03-020 ordered a new network study to

accurately determine the correct Phase 2 and 3 trigger points, and if necessary, revising the 89 MW trigger for Phase 2 construction approval and the 100 MW trigger for Phase 3 construction approval: "We reiterate that a new network study must form the basis for the trigger point assessments for Phases 2 and 3. The flaws in the existing planning documents leave those documents insufficiently reliable for such use."¹

D.15-03-020 references Appendix P4 to the Final EIR with bullet points confirming the need for accurate, and if necessary, revised trigger points:

- "Given the goal of correctly identifying the trigger points, such points must be based on system models that are accurate".
- "It is not possible to correctly identify the trigger points for Phases 2 and 3 without the completion of a new network study."
- "All data and assumptions for a new network study should be documented and justified along with the results and power flow plots, with the final deliverable being trigger points for Phases 2 and3".²

D.15-03-020 addressed comments on the Proposed Decision by NTCAA: "NTCAA's comments on the EIR, its prepared testimony, and its briefs have urged a relook at the planning horizon for the second and third stages of the Proposed Project. The proposed decision agrees that the timing should be reexamined given acknowledged flaws in the planning documents. The proposed decision does not abandon the 89 MW and 100 MW demand growth triggers, however, nor does the record support that result."³

In referencing the 89 MW and 100 MW trigger points that were established by planning documents in the Liberty CalPeco application for a PTC, the Commission relied on a prudent, record based, commencement point for the new network study that would ultimately determine if the 89 MW and 100 MW triggers were accurate indications of the North Tahoe System peak load capacity, and if not, what the correct triggers should be. While the Commission clearly

¹ D. 15-03-020 page 43.

² D. 15-03-020 page 41

³ D. 15-03-020 page 46

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intended the trigger points referenced in the Liberty CalPeco application to act as a starting point, it is understandable that Liberty CalPeco could interpret the 89 MW target referenced in D.15-03-020, and simple attainment of that demand threshold, as verified by an accurate network study, as the exclusive test for receiving Commission approval of Phase 2.

In D.15-03-020 Ordering Paragraph 1 (b), the Commission ordered: "Construction of Phase 2 shall not commence without verification that load growth on the North Tahoe Transmission System is approaching 89 megawatts (MW), as further specified in Ordering Paragraph 3;"

Ordering Paragraph 2 states: "Liberty Utilities LLC, shall perform a new network study to verify the load growth predicates that warrant commencement of Phase 2 and of Phase 3; all data and assumptions for the new network study must be documented and justified along with results and power flow plots, with the final deliverable being the construction commencement timeline (i.e., the "trigger points") for Phase 2 and for Phase 3. Liberty Utilities new network study analysis must identify and explain any "other considerations" that affect its identification of the trigger points and must verify that load outside its own system is not the basis for the trigger points."

Interpreting the Ordering Paragraphs, it is clear that the intent of the new network study was not simply verification of the previously established "triggers" but a full reevaluation of the NLT System so that an accurate construction commencement timeline ("deliverable") could be established. In other words, the cited "triggers" represented a starting point for reevaluation of the actual load capacity of the NLT System, and not an accepted load level capacity for the System. The phase "identification of trigger points" implies that the established triggers were not intended to prompt construction commencement, but to only initiate a new network study that would identify an accurate timeline that the original flawed studies could not. Therefore the established 89 MW peak load "trigger" is not the threshold for construction to commence, it is merely the "trigger" for a new and accurate network study to develop as a "deliverable" a defendable construction commencement timeline. This new network study would then confirm not only that the system had reached the 89 MW load level, but more importantly, whether the 89 MW load level established in the discredited ZGlobal studies was even relevant to System reliability. Additionally, the Commission ordered that if those original triggers were not relevant, that the correct triggers be established.

To enable Energy Division review of the Liberty CalPeco new network study, D.15-03-020 ordered that the commencement request for Phases 2 and 3 be both filed as a Tier 2 Advice Letter, declining Liberty CalPeco's request for a Tier 1 filing and stating: "A Tier 2 AL is subject to our staff's compliance review and we conclude that is appropriate here".⁴ The decision then allows Energy Division to "utilize the consultants already contracted under the terms of the Mitgation Monitoring Compliance Reporting Program (MMCRP) to assist with the review: "Energy Division should not recommend approval of either AL unless the information offered to verify, respectively, the 89 MW and 100 MW construction triggers is compliant with the requirements of this decision."⁵

To effectively review the ordered Tier 2 filing, the Commission initially attempted to contract technical assistance under the existing MMCRP contract as recommended in D.15-03-020. Unfortunately, timely modification of the existing contract to include an engineer qualified to independently review the Liberty CalPeco filing and perform the required power flow analysis proved difficult. To prevent further delay, the Commission turned to experts in our sister agency, the CEC, to assist with the review. The CEC Siting Transmission & Environmental Protection Division provided expert staff to assist Energy Division staff review.

On July 20, 2017 the CEC issued the <u>CEC Staff Assessment of the Network study</u> <u>Included in Liberty Utilities (Liberty CalPeco Electric) LLC Advice Letter 64-E</u>. (Staff Assessment). In short, the CEC review objective as stated in the Staff Assessment was to "review the new network study and convey the conclusions back to Energy Division. The purpose of this report is to convey those conclusions". Using all relevant documents at their disposal the CEC staff "completed essentially a four-part analysis: (1) review of North Lake Tahoe Transmission System loads; (2) review of the Ascension Power Engineering network study; (3) and evaluation of whether or not the diesel generators at Kings Beach could be used to mitigate high line loading identified in the network study; and (4) and evaluation of a transmission mitigation alternative to issues identified in the network study".⁶ In short, the CEC staff Assessment aimed to

⁴ D.15-03-020 page 41

⁵ D.15-03-020 page 42

⁶ CEC Staff Assessment, page 2

determine whether the 89 MW trigger threshold had been reached, whether the Ascension network study accurately assessed the peak loads, whether including the diesel generation assets as recommended by NTCAA would mitigate loading issues, and an analysis of potential transmission improvements that could mitigate loading issues allowing the NLT System to operate reliably, even at the 89 MW load level. It should be noted that the North Truckee 120/60 kV transformer would reach 105.5% of loading in the event of the loss of line 132. However, this transformer is owned and operated by NV Energy, and is not in the control of Liberty CalPeco. As such, the Ascension study does not recommend a system improvement based on this N-1 situation.

Energy Commission Staff Conclusions

- 1. The NLT System load has reached the 89 MW "trigger point" as demonstrated by the coincident peak measured on 12/24/16. However, justification for the Upgrade Project appears to not be solely a function of the 89 MW "trigger", but also of the proportional load distribution across the NLT System. Both a one-percent escalation of the 2015/2016 coincident peak loads as well as the 2016/2017 coincident peak loads results in cases exceeding 89 MW. However, the results do not demonstrate that both cases have criteria violations requiring mitigation by the Upgrade Project.
- 2. The network study performed by Ascension and submitted by Liberty CalPeco found network issues under contingency conditions that are apparently mitigated by the Upgrade Project, based on proportional load distribution that occurred during the 2015/2016 coincident winter peak.
- 3. Energy Commission staff evaluated whether operating the diesel generators at 2 MW, 4 MW and 6 MW could solve the contingency issues identified in the Ascension network study and found that 2 MW would reduce loading on the Truckee-Squaw Valley 60 kV line and would solve the low voltage issue at the Tahoe City Substation. In order to mitigate the overload on the Truckee transformer, 6 MW are needed.
- 4. Energy Commission staff evaluated and alternative, replacing the copper conductor on the Truckee--Squaw Valley 60 kV line (line 609). From a network perspective, this alternative does solve the primary system issue (high loading on the Truckee--Squaw Valley 60 kV line) that was used to justify Phase 2 of the Upgrade Project in the Ascension network study. We have not evaluated environmental impacts or costs of this option.

It is important to note that while the 2015/2016 data indicate that the Upgrade Project is necessary, the same analysis using the 2016/2017 data, the most recent data available, indicate that no criterial violations occur. Relying on the CEC Staff Assessment as a key element of the Energy Division's review of Liberty CalPeco's AL 64-E, and the direction provided in D.15-03-020, the Commission believes that the showing in AL 64-E is insufficient for purposes of approving Phase 2 of the NLT System Upgrade at this time. And since this matter is the subject of a protest, approval is denied. Several factors lead the Commission to this conclusion.

First, it is apparent that NTCAA's assertion that the existing backup diesel generating capacity in Kings Beach could be an effective mitigation for system peak loading conditions, and should have been incorporated into the Ascension network study. This omission represents a critical failure to accurately model the NLT System. Because of this omission, the Commission finds that the protest of NTCAA is valid, at least in part.

Second, it is unclear whether the load shifting that occurred during the winter peak period 2016/2017 is a permanent change in load configuration on the North Tahoe System, and only analysis of peak load data collected during the 2017/2018 winter period will determine the future coincident system peak.

Third, it is possible that upgrading conductor on the Truckee Squaw Valley 60 kV line 609 could solve the primary system issue that was used to justify the need for Phase 2 approval at this time.

For these reasons the Commission believes that approval of Phase 2 by AL 64-E would be premature. At this time, the Commission believes that Liberty CalPeco should evaluate the potential use of the backup generation in Kings Beach and specifically, the ability to dispatch incremental levels of generation as suggested in the CEC Staff Assessment, to achieve the necessary reliability during peak load conditions. Liberty CalPeco should also evaluate the CEC Staff Assessment finding that upgraded conductor (1/0 copper to 397.5 AA) between Truckee and Squaw Valley could mitigate primary system issues. Finally, the Commission understands the value of additional peak load data collection during the 2017/2018 winter as a means of accurately determining coincidental peak period load shifting.

Regarding upgrading the Line 609 copper conductor, the Commission believes that our General Order 131-D would allow Liberty CalPeco to file an immediate Tier 1 Notice of Construction enabling Liberty CalPeco to pursue the upgrade of that segment of Line 609 prior to the winter of 2017/2018, and if deemed by Liberty CalPeco to be an effective means of providing additional, immediate NLT System reliability.

The Commission finds that an advice letter filing containing an analysis of the above three issues is essential to informing a Phase 2, and the later Phase 3 approval.

COMMENTS

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding. In this instance we are extending the 30 day comment period to 60 days.

The 60-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 60 days from today.

FINDINGS

- The Commission approved D.15-03-020 on March 27, 2015. D. 15-03-025 approved the construction of the Line NLT Upgraded Project in three phases, and approved Phase 1 for immediate construction. D.15-03-020 ordered the approval for Phases 2 and 3 will be dependent upon a new and accurate network study demonstrating that the peak load target threshold of 89 MW had been reached, and further, that at the 89 MW peak load level, construction of Phase 2 was necessary to mitigate system criteria violations.
- 2. D.15-03-020 ordered Liberty CalPeco to file a Tier 2 Advice Letter with Energy Division when the system peak load reached 89 MW with a new network study attached demonstrating that the peak load threshold had

been reached, that the load growth is not from outside the system, and to accurately document that system violations would occur at the 89 MW demand level, and that the violations could be mitigated by Phase 2 construction.

- 3. D.15-03-020 ordered Energy Division to evaluate the new Liberty CalPeco network study to ensure that accurate, documentable, and justified "trigger points" for Phases 2 and 3 were established. D.15-03-020 recommended that technical assistance from an existing Energy Division contract be used, if necessary. Ultimately, Energy Division was provided technical assistance by the CEC's Siting Transmission & Environmental Protection Division.
- 4. On October 14, 2016 Liberty CalPeco filed AL 64-E which contained a new network study by Ascension documenting that the 89 MW threshold had been met and requesting approval from the Commission for Phase 2 construction.
- 5. On November 3, 2016 NTCAA protested AL 64-E alleging amongst other things, that the Ascension network study manipulated fundamental assumptions. And specifically, modeled the NLT System in an emergency state with the Kings Beach diesel generators producing zero real power (MW) and either severely reduced or no reactive power (MVAR).
- 6. On November 10, 2016 Liberty CalPeco responded to the NTCAA protest of AL 64-E arguing that AL 64-E met the three primary preconditions that D.15-03-020 required for commencement of construction of Phase 2.
- 7. On January 5, 2017 Energy Division staff issued a data request to Liberty CalPeco seeking amongst other things, North Tahoe System 2016 winter peak load data.
- 8. On July 20, 2017 Energy Division received the California Energy Commission Staff Assessment of the Network study Included in Liberty Utilities (Liberty CalPeco Electric) LLC Advice Letter 64-E.
- 9. The CEC Staff Assessment provided staff conclusions including the finding that the Liberty CalPeco North Tahoe System has reached the designated 89 MW peak load trigger identified in D.15-03-020. At the 89 MW CEC staff concluded that the 2015/2016 load data resulted in network issues that could be mitigated by the Phase 2 Upgrade Project. However, 2016/2017 load data, due to proportional load distribution across the NLT System, did not result in criterial violations that required mitigation by the Phase 2 Upgrade Project.

- 10. CEC staff evaluated operating the Kings Beach diesel backup generators at incremental levels of 2 MW, 4 MW, and 6 MW and concluded that generation at the 2 MW level could solve contingency issues identified in the Ascension Network study.
- 11. CEC staff found that upgrading copper conductor segment on the Truckee-Squaw Valley 60 kV Line 609 solves the primary system issue of high loading on the Truckee-Squaw Valley 60 kV Line 609 that was used to justify Phase 2 of the NLT Upgrade Project in the Ascension network study.
- 12. The CEC did not evaluate the environmental impacts of upgrading the copper conductor segment of the Line 609.
- 13. Liberty CalPeco omitted an important NLT System component, the Kings Beach diesel backup generation from the network study. The Protest of NTCAA is valid.

THEREFORE IT IS ORDERED THAT:

- 1. The request of Liberty CalPeco for approval to construct Phase 2 of the NLT System Upgrade Project is denied.
- 2. The protest of NTCAA is upheld.
- 3. Liberty CalPeco should file an Advice Letter with the Commission's Energy Division seeking approval for the NLT System Phase 2 upgrade when Liberty CalPeco has completed a new network study, which considers the CEC Staff Assessment findings, and complies fully with D.15-03-020 by documenting the construction commencement timeline for construction commencement for Phase 2. Alternatively, Liberty CalPeco may file a Petition to Modify D.15-03-020.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held October 26, 2017; the following Commissioners voting favorably thereon:

> TIMOTHY J. SULLIVAN Executive Director