

June 11, 2012

Steve Rodgers, Director  
Division of Electric Power Regulation –  
West  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

**Re: California Independent System Operator Corporation,  
Docket Nos. ER12-1305-000 and ER12-1312-000;  
Southern California Edison Company,  
Docket No. ER12-1302-000 (Not Consolidated)**

**Response to May 10, 2012 Commission Staff Letter**

Dear Mr. Rodgers:

Through this letter, the California Independent System Operator Corporation (ISO) provides additional information to the Commission, as requested by the Commission Staff's letter dated May 10, 2012 (May 10 letter), with regard to the above-referenced dockets.

**I. Introduction and Background Information**

**A. Introduction**

The May 10 letter poses four questions to the ISO with respect to the notice submitted in Docket No. ER12-1312-000 to terminate the Large Generator Interconnection Agreement among the ISO, The Nevada Hydro Company (Nevada Hydro) and San Diego Gas & Electric Co. (SDG&E) (the SDG&E LGIA).

The May 10 letter also poses eight questions to the ISO and/or Southern California Edison Company (SCE) with respect to the unexecuted LGIA among the ISO, Nevada Hydro, and Southern California Edison Company (SCE) filed by the ISO in Docket No. ER12-1305-000 and by SCE in Docket No. ER12-1302-000 (the SCE LGIA).

Sections II and III of this letter filing contain responses to each of the questions posed in the May 10 letter. In addition, the discussion below in this Section I supplies helpful background information to provide context for the responses.

The ISO appreciates that the questions in the May 10 letter regarding the SDG&E LGIA seek additional information that appears to reach to traditional touchstones of whether there is a material effect on other interconnection customers if the SDG&E LGIA is not terminated. The responses that follow in this filing do demonstrate that there is such a material impact on other interconnection customers. The ISO believes that the following additional information is necessary to put in context such effects. This is because the effect on other customers in this case is less evident than in the traditional sense – *i.e.*, where the costs of specific network upgrades immediately shift to a later-queued interconnection customer who must build them to complete its interconnection configuration. In this case, there is instead continued base case uncertainty as to whether the Talega – Escondido / Valley – Serrano (TE/VS) line, which is a “supersized gen-tie” flowing power to/from the systems of SDG&E and SCE, will ever be built. The uncertainty of this contingency places later-queued customers into a present uncertainty as to the resource adequacy value of their project output, which in turn affects their present ability to negotiate for future power purchase agreements. The uncertainty means there is a chance that their deliverability will “swing” either upward (for projects located in SDG&E’s service territory) or downward (for projects located in SCE’s service territory).

## **B. Background Information**

As the Commission is aware, Nevada Hydro’s overall project consists of two discrete components. The Lake Elsinore Advance Pumped Storage (LEAPS) generating facility is the first component – planned as a 500 MW pump storage power plant, which, from the perspective of generator interconnection, injects power into the ISO controlled grid at two points of interconnection through a double trunked generation tie line, one going from the LEAPS facility (which is at mid-point) to a point of interconnection to SCE’s Valley - Serrano 500 kV transmission line and the other generation tie-line interconnecting to SDG&E’s Talega - Escondido 230 kV transmission line.

Nevada Hydro also wants the two generation tie lines to operate as a transmission line (the second discrete component) which it calls the TE-VS) line. Because Nevada Hydro is “supersizing” the line to have a dual purpose of carrying the LEAPS generation output and additional power flow, the line has the potential to make approximately **1,000 more megawatts deliverable to the San Diego area, twice what** the LEAPS facility would transmit. Given that all objective indicators are that Nevada Hydro’s generation facility project is not going forward, it is this compounding factor that renders uncertain the power output resource adequacy value (referred to in the ISO tariff as “net qualifying

capacity” or “NQC”) for later-queued projects. The uncertainty created by Nevada Hydro’s project has a material effect on the commercial viability of those later-queued projects.

As explained in the ISO’s earlier filings in this proceeding, there is currently no practical path for either of these discrete components of Nevada Hydro’s project to be constructed in the form set forth in its interconnection application and interconnection agreements, or within any reasonably ascertainable time frame from today, which is already seven years from the original date of the interconnection request (April 26, 2005).

In all that time since 2005, Nevada Hydro has failed to secure any of the permits necessary to construct the LEAPS project. Even more significantly, the municipal authority that controls access to Lake Elsinore, the planned source of water required to operate the pump storage facility of the LEAPS project, has withdrawn its participation in that project. Therefore, Nevada Hydro has no access to the water source that is the most integral part of the generating facility. As the Commission recognized in its order denying rehearing of the LEAPS permit application, Nevada Hydro’s assertion that it could operate the project without the municipal authority’s cooperation “does not seem promising,” given that the LEAPS project would need to utilize the municipal authority’s facilities.<sup>1</sup> To date, Nevada Hydro has been unable to provide any indication of how or when this critical obstacle would be overcome.

With regard to the TE/VS line, the full California Public Utilities Commission (CPUC) issued a final decision on May 24, 2012 that dismissed Nevada Hydro’s application for a certificate of public convenience and necessity (CPCN) for the second time, making the following findings of fact which are pertinent here as to the timeline for what is to function as the generation tie line under the LGIAs<sup>2</sup>:

Finding of Fact No. 4: The Commission cannot afford to squander its resources on applications that, despite more than 18 months of work, remain vague and speculative as to financing and indeed the project itself.

Finding of Fact No. 5: It makes little sense to stay this proceeding while Nevada Hydro seeks expert witnesses to prepare testimony that is critical to the consideration of whether this project is viable, feasible, economic, and whether there is a need for the project

Finding of Fact No. 6: Nevada Hydro has had ample opportunity in [the instant CPUC docket] A.10-07-001 and in previous applications

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<sup>1</sup> *The Nevada Hydro Company, Inc.*, 137 FERC ¶ 61,133, at P 31 n. 16 (2011).

<sup>2</sup> The final decision can be accessed on the CPUC’s website at [http://docs.cpuc.ca.gov/word\\_pdf/FINAL\\_DECISION/167564.pdf](http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/167564.pdf).

to develop its project description and financing plan appropriately and to confirm that it can present its case-in-chief, which includes with specificity how it will interconnect with both SDG&E's and SCE's systems, and that the CAISO will accept control as the grid operator; however, none of these actions have occurred.<sup>3</sup>

The CPUC decision also imposed requirements on Nevada Hydro that include the following, if Nevada Hydro were to make a future third attempt at applying to the CPUC for a CPCN for the transmission line:

Nevada Hydro, its principals, or subsequent project proponents should be required to comply with a series of conditions in order to have any subsequent application accepted for filing by this Commission:

- a. To be considered complete, any application must comply fully with the requirements of the Pub. Util. Code §§ 1001 et seq., General Order 131, the Rules of Practice and Procedure, must fully demonstrate the proposed project's need, and must comply with the detailed requirements to provide a cost control plan, implementation plan, and project management plan;
- b. Any subsequent application must ensure that the financial viability of the project is clear and that any financial partner's participation is transparent, as well as the financial viability of the project and proponent's ability to support the project;
- c. Any subsequent application must include complete testimony from expert witnesses. Because the application must be complete, parties must be able to rely on the proffered experts and their testimony;
- d. Any subsequent application must provide an accurate and stable project description and location and the Energy Division must not accept the PEA [Proponent's Environmental Assessment] as complete without such a description;
- e. Any subsequent application must explain how the CAISO is currently considering the project and include a full discussion of how revenue requirements will be calculated and recovered through the Transmission Access Charge, as well as the impact on California ratepayers.<sup>4</sup>

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<sup>3</sup> *Id.* at 19-20.

<sup>4</sup> *Id.* at 20-21.

Further, in the portion of the CPUC's decision covering Nevada Hydro's procedural obligation to provide evidence of financial viability, the CPUC noted the following regarding the state of the record:

In order to recover its costs, Nevada Hydro states that it intends to turn control over its facilities to the CAISO and to recover its costs through the TAC. Nevada Hydro states that it submitted a Participating Transmission Owner application for the project to the CAISO in February 2007, as supplemented in April 2009. Nevada Hydro maintains that the project has been evaluated and approved by the CAISO when it was proposed as the Valley Rainbow Interconnect Project (sponsored by SDG&E) and further contends that the CAISO evaluated the project as part of the Southwest Transmission Expansion Plan and the South Regional Transmission Plan. Applicant also contends that the CAISO's actions in 2006 regarding the South Regional transmission Plan led to a conclusion that the project will ensure reliability and will achieve cost savings. However, Nevada Hydro acknowledges that the CAISO has not acted on these findings.<sup>5</sup>

This record in the CPUC proceeding indicates a planning approach that is the opposite of the factual foundation for this Commission's 2008 order conditionally accepting the SDG&E LGIA. The Commission's 2008 order was premised upon the factual assumption – incorrect, as subsequently became clear – that the TE/VS line would be constructed reasonably soon after the order was issued and prior to construction of the LEAPS facility.<sup>6</sup> The record in the CPUC proceeding indicates that, now, construction of the TE/VS line will depend on transmission planning action by the ISO that may not even comport with Nevada Hydro's desires. In particular, under the ISO's revised transmission planning process, transmission projects that are approved in the ISO's transmission plan are placed into an open solicitation process **whereby all interested parties, not just the party originally submitting the project in the transmission process**, has an opportunity to propose to construct and own the transmission facilities. Accordingly, it does not automatically follow that, if Nevada Hydro re-submits the TE/VS line into the ISO transmission planning process, Nevada Hydro will be the entity chosen to construct and own the facilities.

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<sup>5</sup> *Id.* at 6-7.

<sup>6</sup> *California Independent System Operator Corp.*, 123 FERC ¶ 61,140, at P 14 (2008). (“Our acceptance of Nevada Hydro's proposed in-service date is based on the conclusion that, because of the dual-purpose nature of the facilities in question, a non-conforming change to CAISO's LGIA is just and reasonable. All else being equal, Nevada Hydro should not have to wait idly for the construction schedule for the LEAPS project to catch up with the TE/VA Interconnect based on the definition of ‘in service date’ alone. . . . Our conclusion to allow an earlier in-service date so that Nevada Hydro can begin moving forward with the TE/VS Interconnect is intended to assist in the development of necessary infrastructure.”).

A survey of these facts and circumstances illustrate that, as of today, Nevada Hydro has no reasonable means of setting out a project schedule for either the LEAPS facility or the TE/VS line and that the actual project time line for what is now a highly speculative project **has eclipsed the time left under the 2005 interconnection request.**

The ISO notes that Nevada Hydro is free to withdraw its current interconnection request and submit a new interconnection request for the LEAPS project if and when Nevada Hydro is more prepared to move forward. Nevada Hydro is also free to submit a request to include the TE/VS line in the ISO's transmission planning process, if and when it is ready to be considered for such treatment. For the foreseeable future, however, the LEAPS project and the TE/VS line remain merely speculative.

**II. Information Which the May 10 Letter Directs the ISO to Provide, Pertaining to the SDG&E LGIA (Docket No. ER12-1312-000)**

- 1. Are there any Interconnection Customers in the interconnection queue that will experience higher costs if the Interconnection Agreement with Nevada Hydro is not terminated (i.e., milestones are extended)? If so, why will the costs increase, what is the estimated cost for each customer, and what remedy could be imposed to protect interconnection customers in the interconnection queue?*

Response to Question No 1:

The typical scenario in which a later-queued interconnection customer experiences higher costs is not present here. In the typical situation, network upgrades embedded in the earlier-queued interconnection customer's interconnection configuration are a platform for the later-queued interconnection customer configuration, and the extension of milestones with respect to the earlier customer requires the later customer to pick up the upgrades to maintain its commercial operation date. In the Nevada Hydro situation, there are no network upgrades that will be transferred to later-queued customers that need the network upgrades to be constructed in order to interconnect.

However, as explained in the response to Question No. 3, below, later-queued interconnection customers may incur additional interconnection study costs resulting from the need for the ISO and Participating TO to maintain two sets of reliability and deliverability studies for alternative "LEAPS project and TE/VS line in" and "LEAPS project and TE/VS line out" scenarios.

Moreover, if the Nevada Hydro milestones are extended, later-queued interconnection customers will incur cost consequences, which are of a

completely different kind than in the typical scenario. The cost consequences will stem from the uncertainty factor that will attach to the net qualifying capacity of the generating facilities of the affected later-queued interconnection customers.

2. *Are there any Interconnection Customers in the interconnection queue that will experience lower costs if the Interconnection Agreement with Nevada Hydro is not terminated? If so, why will the costs decrease and what is the estimated cost savings for each customer?*

Response to Question No. 2:

There are no Interconnection Customers in the interconnection queue that will experience lower costs if the Interconnection Agreement with Nevada Hydro is not terminated. However, if the Interconnection Agreement with Nevada Hydro (*i.e.*, the SDG&E LGIA) is not terminated, and its associated network upgrades are actually permitted, funded, and constructed, generation located in the SDG&E service territory could receive a higher NQC value, as described below in response to Question No. 3.

3. *Are there any Interconnection Customers in the interconnection queue that will experience adverse non-cost impacts if the Interconnection Agreement with Nevada Hydro is not terminated? If so, describe the impacts and explain why they occur.*

Response to Question No. 3:

There will be distortion in the network modeling if the SDG&E LGIA is not terminated and the TE/VS line remains in the network modeling, but is never built. Because the accuracy of interconnection customers' studies would be impacted, it requires the ISO to perform additional study work to have a study set with two sets of assumptions – one study with the LEAPS project and the TE/VS line in the base case and another study with the LEAPS project and the TE/VS line out.

If the ISO maintains two sets of deliverability studies and study results, this means that each study would yield a different set of NQC values for the affected interconnection customers. Presumably, the “LEAPS project and TE/VS line out” scenario would be considered the more likely scenario and thus the NQC values under that scenario would be used for engineering and business purposes, and the “LEAPS project and TE/VS line in” scenario would be treated as a “shadow study set.”

As to reliability studies, there are certain reliability network upgrades, generally in the form of substation breakers, that are currently in the SCE LGIA and would transfer to later-queued interconnection customers in the SCE area

interconnecting to the substation. Accordingly, the study under the “LEAPS project and TE/VS line out” scenario would assign these reliability network upgrades to later-queued customers, and the study under the “LEAPS project and TE/VS line in” scenario would continue assignment of the reliability network upgrades to Nevada Hydro.

Clearly the need to maintain two sets of studies and results would create additional administrative burden to the ISO and Participating TOs performing studies, and the attendant interconnection study hourly costs would likely be absorbed by later-queued customers as studies are run in each interconnection study cycle.

Nevada Hydro’s interconnection request is for a serial study project. There are later-queued customers that are also in the serial study group, in the LGIA transition cluster and in queue clusters 1 through 4. The ISO estimates that the affected customers consist of:

- Nineteen customers comprising approximately 3700 MW of generating capacity in the transition cluster, cluster 1, and cluster 2; and
- Twenty-one customers, representing approximately 2400 MW of generating capacity in clusters 3 and 4.

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• *40 customers total*

• *Approximately 6100 MW of generating capacity*

Again, some background explanation is needed here to explain why these customers will be affected. In early 2012, the ISO employed an alternative deliverability methodology to address the current situation that the ISO’s interconnection queue contains roughly four times the amount of MW generating capacity needed by load serving entities to achieve California’s renewables portfolio standard. Under these conditions, the interconnection study approach was yielding unrealistically large interconnection configurations and thus unrealistically high interconnection cost estimates because the study assumptions assumed that all of the MW generating capacity in the queue would progress to commercial operation when in fact only about a fourth of that generating capacity is actually expected to do so. This result was widely criticized by market participants as being a barrier to many viable generation projects ever having the financial ability to finish the interconnection process.

To address the situation, the ISO revised its study assumptions and employed an alternative study methodology as described in a Technical Bulletin it issued in January 2012 entitled “Generator Interconnection Procedures: Deliverability

Requirements for Clusters 1-4.” (“Technical Bulletin”).<sup>7</sup> Under the deliverability methodology set forth in the Technical Bulletin, certain delivery network upgrades were removed as the ISO study process evaluated delivery network upgrades for less than all of the MW generating capacity – instead, the deliverability methodology used essentially the expected MW of generating capacity amounts contained in generation portfolios utilized in the ISO’s transmission planning process. As a result of applying this deliverability methodology, the TE/VS line and related LEAPS project MW injection were removed from the interconnection studies because they fit the criteria for lines that were unlikely to be needed or built given the generation expected to complete the interconnection queue process and be constructed.

The deliverability methodology includes one other feature which is important to explaining the cost consequences to later-queued customers. It is possible that the assumptions underlying the deliverability network upgrade study results do not true-up to actual events – in such cases, a larger level of upgrades may be necessary. Under the study methodology, those upgrades would be built and financed through the ISO’s transmission planning process. In the interim, generation NQC, which is a metric that determines resource adequacy value based on how much output of the facility is deliverable to the aggregate of load, would be reduced.

If the Nevada Hydro milestones are extended and the supersized TE/VS line (with a 1000 MW of additional flow) are placed back in the model, then the deliverability study results change dramatically for the 40 affected customers. Because the TE/VS line would introduce power flow from SCE southward to SDG&E, the NQC value for interconnecting generation situated in SCE’s service territory would go down and the NQC value for interconnecting generation situated in SDG&E’s service territory would go up. The complication is that the LEAPS project and the TE/VS line would remain as an open contingency impacting NQC value, and this open contingency would not close for years. In that setting, the 40 projects described above must participate in requests for offers and solicit power purchase agreements (PPAs) or inform power purchasers that the resource adequacy values of their existing PPAs are subject to wide swings upwards or downwards. Therefore, the 40 customers will not be sure of the revenue stream values of their generating assets. As a result, customers in the SCE service territory will be forced to discount for the potential downward movement of their NQC ratings and customers in the SDG&E service

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<sup>7</sup> The Technical Bulletin is available on the ISO’s website at [http://www.caiso.com/Documents/TechnicalBulletin-GeneratorInterconnectionProcedures-DeliverabilityRequirements-Clusters1-4Jan31\\_2012.pdf](http://www.caiso.com/Documents/TechnicalBulletin-GeneratorInterconnectionProcedures-DeliverabilityRequirements-Clusters1-4Jan31_2012.pdf). The ISO also performed a deliverability reassessment pursuant to the methodology described in the Technical Bulletin. The results of the deliverability reassessment are available on the ISO website at [http://www.caiso.com/Documents/TechnicalReport\\_cluster1\\_2DeliverabilityRe-Assessment.pdf](http://www.caiso.com/Documents/TechnicalReport_cluster1_2DeliverabilityRe-Assessment.pdf).

territory may not fully realize revenue potential from a potential upward movement of their NQC ratings.

4. *Please explain any safety and reliability concerns related to Nevada Hydro's request to extend the Commercial Operation Date for the LEAPS project under the current LGIA. Please provide a detailed list of what costs, if any, Nevada Hydro may be required to pay to ensure the safety and reliability of the transmission system if its obligations under the LGIA are extended.*

Response to Question No. 4:

There are no additional safety and reliability concerns related to the Nevada Hydro's request to extend the milestones for Nevada Hydro's SDG&E LGIA. Under the current LGIA, Nevada Hydro will be responsible for the costs related to an operational study intended to be conducted one year before the commercial operation date, to update the identified system upgrades and the costs due to the changes in the generation interconnection queue and in the transmission system, and because significant time has passed since the previous studies for the project were performed.

**III. Information Which the May 10 Letter Directs the ISO and/or SCE to Provide, Pertaining to the SCE LGIA (Docket Nos. ER12-1305-000 and ER12-1302-000)**

1. *If the Commission rejects CAISO's proposed notice of termination in Docket No. ER12-1312, how will this affect the proposed LGIA?*

Response to Question No. 1:

The SCE LGIA will not be affected if the Commission rejects the notice of termination for the SDG&E LGIA. Neither LGIA contains provisions that are conditioned or otherwise dependent upon provisions in the other LGIA for construction of transmission assets in order to interconnect the LEAPS generating facility to the point of interconnection to the ISO grid specified under the LGIA. Each agreement, on its own, can provide for such interconnection.

2. *What is CAISO's rationale for treating the proposed LGIA as a stand-alone interconnection agreement with SoCal Edison when the existing LGIA among Nevada Hydro, SDG&E and CAISO is a part of the overall interconnection request?*

Response to Question No. 2:

The reason is that only one point of interconnection is required to permit the output of a generating facility to reach ISO load. Although Nevada Hydro asked for two points of interconnection (one to the SCE transmission system and the other to the SDG&E transmission system) in a single interconnection request, that request was not inconsistent with the minimum requirement that there be one point of interconnection and was permissible under the ISO tariff. Section 3.1 of the Large Generator Interconnection Procedures (LGIP) set forth in Appendix U to the ISO tariff requires each interconnection customer to “submit a separate Interconnection Request for each site.” Nevada Hydro proposed to locate the LEAPS facility at a single site, and LGIP Section 3.1 does not state that multiple interconnection requests must be submitted for interconnection of a single site to different points.

It was appropriate to make Nevada Hydro subject to two separate LGIAs – one with SCE and the other with SDG&E – because Nevada Hydro requested to interconnect to both to the SCE and SDG&E transmission systems. As discussed in the response to Question Nos. 5 and 6, below, SDG&E and SCE performed separate studies to evaluate the impact of the LEAPS project on their respective systems. Pursuant to Order No. 2003, an LGIA is normally a three-party agreement among the transmission provider, the interconnection customer, and a single transmission owner (not multiple transmission owners). Further, the interconnection arrangements embodied in the SDG&E LGIA were finalized years ago in the Commission proceeding on that LGIA. In contrast, the ISO, Nevada Hydro, and SCE have been unable to reach agreement on the interconnection arrangements to the SCE system embodied in the SCE LGIA, which is why that LGIA was filed unexecuted with the Commission only a few months ago.

3. *Did Nevada Hydro submit one interconnection request and one interconnection request deposit to CAISO for the interconnection of LEAPS?*

Response to Question No. 3:

Yes, as discussed in the response to Question No. 2, above, Nevada Hydro submitted one interconnection request and a \$10,000 interconnection request deposit.

4. *Was a single scoping meeting held with Nevada Hydro, CAISO, SoCal Edison and SDG&E or were there separate scoping meetings with SDG&E and SoCal Edison? If the latter, please explain why.*

Response to Question No. 4:

Three scoping meetings were held on the following dates: May 25, 2005, June 13, 2005, and August 30, 2005. At each of these scoping meetings, Nevada Hydro, ISO, SCE, and SDG&E all participated in the discussions.

5. *What assumptions were included in the interconnection feasibility study agreement with regard to the point(s) of interconnection of LEAPS? What assumptions were made regarding the point(s) of interconnection of LEAPS in the interconnection system impact study?*

Response to Question No. 5:

No feasibility study was performed; the studies for the LEAPS project started with the system impact study. The system impact studies assumed interconnection of the LEAPS project both to the SCE and SDG&E systems. Pursuant to that study agreement, the system impact study incorporated the following assumptions:

- a. 500MW delivered to SCE
- b. 600MW load in SCE
- c. 500MW delivered to SDG&E
- d. 600MW load in SDG&E
- e. Natural power flow with generator off-line
- f. Point of Interconnection: A new 500 kV SCE owned substation at a point where SCE's Valley-Serrano 500 kV transmission line is looped into the new SCE 500 kV substation, and a new 230 kV SDG&E owned substation at a point where SDG&E's Talega-Escondido 230 kV transmission line is looped into the new SDG&E 230 kV substation.
- g. Configuration: A 500 MW pumped storage generating facility, consisting of two 250 MW Voith Siemens Hydro Power Generation synchronous generators, 600 MW of pump load, step-up transformers, and appurtenant facilities, located in Lake Elsinore, California, interconnect to SCE's Valley-Serrano 500 kV transmission line via a new 500 kV transmission line, interconnect to SDG&E's 230 kV Talega-Escondido transmission line via a new 500 kV transmission line and 550/230 kV step-down phase shifting transformers; transmit Energy and/or Ancillary Services to the ISO Controlled Grid and receive approximately 600 MW of electric power necessary to operate the pump load in non-generation mode ("LEAPS Project")
- h. Designation of alternative Point(s) of Interconnection and configuration. None.
- i. An Interconnection Customer requested in-service date of September 1, 2007; however, such assumption shall be subject to

change after study results, permitting requirements, design, land issues and material lead times are known, so that a more accurate determination can be made.

- j. The technical data supplied by Interconnection Customer are accurate and complete.
- k. Interconnection Customer will install and maintain necessary equipment to meet Participating TO's criteria for power factor correction at the Point of Interconnection.
- l. The maximum interconnection capacity requested by Interconnection Customer is 500 MW of generating capacity and 600 MW of pump load at 500 kV.
- m. Interconnection System Impact Study results will reflect the ISO Tariff, rules and protocols, and the Participating TO's Interconnection Handbook in effect at the time the Participating TO provides the Interconnection System Impact Study to Interconnection Customer.
- n. Delivery point for the 500 MW of capacity will be the ISO Controlled Grid at 1) a new 500 kV substation at the point where SCE's Valley-Serrano 500 kV Transmission Line is looped into the new SCE 500 kV substation and 2) a new 230 kV substation at the point where SDG&E's Talega-Escondido 230 kV Transmission Line is looped into the new SDG&E 500/230 kV substation.
- o. A Dynamic Stability Analysis will be performed contingent upon receipt of adequate stability data from Nevada Hydro Company, Inc., prior to completion of the load flow and short circuit analysis. If adequate stability data is not received prior to completion of the load flow and short circuit analysis, Study will be completed without this analysis. In that event, Dynamic Stability Analysis will be completed as part of subsequent Facilities Study.
- p. A 90/10 load forecast will be simulated for the SDG&E and SCE service territories.
- q. The Study will include the 2008 heavy summer model used in SDG&E and SCE's 2005 annual transmission planning assessment.
- r. LEAPS Project generation and load will be modeled as follows:
- s. 500 MW into SCE's system in heavy summer and light spring.
- t. 500 MW into SDG&E's system in heavy summer and light spring.
- u. 600 MW of load into SCE system in heavy summer off Peak and light spring off peak.
- v. 600 MW of load into SDG&E's system in heavy summer off-peak and light spring off-peak.
- w. Transmission connection between SCE and SDG&E (Serrano-Valley and Talega-Escondido connection as proposed by Interconnection Customer in heavy summer and light spring, with no LEAPS Project generation or load.

The additional study assumptions for the SDG&E study were:

1. SDG&E has financed substantial portions of its transmission and distribution systems with proceeds from Local Furnishing Bonds (also known as Industrial Development Bonds or IDBs) issued by the City of San Diego and the City of Chula Vista. Interest on these bonds is tax-exempt. Pursuant to IRS requirements, if the proposed project would cause impairment of these bonds, TNHC would need to mitigate the resulting costs to SDG&E. The IFAS will evaluate any potential impact on IDBs.
2. Projects with interconnection applications preceding this IC's project are assumed in-service and the IFAS will include identified Direct Assignment and Reliability Network Upgrades; however, potential system enhancements or modifications due to proposed Delivery Network Upgrades resulting from such projects, if any, are not assumed.
3. The phase shifting transformers located at the Camp Pendleton substation will be increased from 500 MVA to 670 MVA.
4. The IFAS shall be based on the 2008 Heavy Summer, 2008 Light Spring, 2008 Spring Off-Peak and 2008 Summer Off-Peak cases developed for the SIS. In the generating mode there will be different cases modeling the generation going into SDG&E and into SCE. In pumping mode there will be different cases modeling the pump load supplied either from SCE or from SDG&E.
5. The TNHC intends to own, lease, and/or control and operate a Large Generating Facility that will interconnect with SDG&E's 230kV system.
6. The TNHC has submitted a completed Interconnection Application pursuant to the provisions of the ISO tariff.

The TNHC has stated a proposed testing date of the generation facility to be in September 2008. The proposed commercial operation date of Unit #1 is December 2008 and Unit #2 is September 2009; however, such assumptions shall be subject to change after the IFS results, permitting requirements, design, land issues, and material lead times are known, so that a more accurate determination can be made.

7. The power flow case scenarios shall include all generation currently in higher CAISO queue positions ahead of the LEAPS Project, and will be used to document pre-existing transmission system problems, if any, that may be determined to exist prior to the interconnection of the LEAPS project.

Due to the integral nature of this project, only one study report was issued. This study report is provided as a confidential attachment to the instant filing.

6. *With regard to the point(s) of interconnection of LEAPS, were different assumptions made by SDG&E and SoCal Edison in conducting interconnection feasibility and system impact studies? If so, was this at the direction of CAISO? Please explain.*

Response to Question No. 6:

Please see the response to Question No. 5 above. Interconnection of the LEAPS project was modeled the same way in the SCE and SDG&E studies. The studies were reviewed by the ISO, and the project interconnections were approved by the ISO.

7. *Are the interconnection studies conducted by SoCal Edison consistent with the direction provided by CAISO to SoCal Edison with regard to study plans and assumptions?*

Response to Question No. 7:

All published study reports, including system impact and facility, were conducted by SCE consistent with the direction provided by ISO to SCE with regard to study plans and assumptions. A 2009 technical assessment under the facilities study was performed by SCE was ultimately not provided to the customer as that assessment assumed a 2007 commercial operation date, which was the date provided by the customer and which the customer did not want to change.

8. *On page 5 of the transmittal letter in Docket No. ER12-1302-000, you state that "a table showing the estimated revenues SCE will collect under the LGIA during the first twelve months is provided in Attachment A to this filing letter." However, we note that Attachment A was not included with your submittal. Therefore, please provide the estimated 12 month revenues in your response.*

Response to Question No. 8:

The ISO understands that SCE will provide the requested attachment in SCE's separate response to the May 10 letter.

#### **IV. Communications**

Communications regarding this filing should be addressed to the same individuals at the ISO who were designated to receive service in the underlying filings in these proceedings, namely:

Nancy Saracino  
General Counsel  
Sidney M. Davies  
Assistant General Counsel  
Baldassaro "Bill" Di Capo  
Senior Counsel  
California Independent System  
Operator Corporation  
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#### **V. Service**

The ISO has served copies of the instant filing upon all parties in the above-referenced proceedings. In addition, the ISO is posting the filing on its website.

## **VI. Conclusion**

The ISO respectfully requests that the Commission accept this response as providing the additional information requested from the ISO in the Commission Staff's May 10, 2012 letter. If there are any further questions or comments, please contact the undersigned.

/s/ Baldassaro "Bill" Di Capo

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