THE HYDRO COMPANY, INC.
DBA THE NEVADA HYDRO COMPANY, INC.

November 15, 2013

Mr. Neil Millar
California ISO
250 Outcropping Way
Folsom, CA 95630

RE: Talega–Escondido/Valley–Serrano 500 kV Interconnect Project

Dear Neil:

We have noticed that in its presentations[1] the CAISO has described a number of proposed transmission projects sponsored by the incumbent utilities as possible replacements or mitigation for the now shutdown San Onofre Nuclear Generating Station ("SONGS"). As none of these proposed projects is as mature or as well defined as is our Talega–Escondido/Valley–Serrano 500 kV Interconnect ("TE/VS Interconnect") project, The Nevada Hydro Company ("Nevada Hydro") thought it might be helpful to summarize for you the essential differences between the TE/VS Interconnect and these other proposed projects[2].

I have taken the liberty of expanding upon a chart, attached at the end of this letter, which has been making the rounds in order to spell out clearly these differences. The remainder of this letter will provide a straightforward analysis of these differences. We have already provided to you much of the detail supporting this analysis on the CD–ROM that accompanied our Request Window filing. Other relevant references are specifically noted.

The key differences between the TE/VS Interconnect and the other transmission and related energy projects that the CAISO has been looking at are:

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[1]/ See, for example, "CEC/CPUC Joint Workshop Electricity Infrastructure Issues Resulting from SONGS Closure", July 15, 2013, see particularly, slide 12; "Agenda – Day 1 Preliminary Reliability Assessment Results", 2013/2014 Transmission Planning Process Stakeholder Meeting, September 25-26, 2013, see particularly, slides 166–176; and "Agenda – Day 2 Preliminary Reliability Assessment Results", 2013/2014 Transmission Planning Process Stakeholder Meeting, September 25-26, 2013, showing "proposed reliability solutions" of the IOUs. Nevada Hydro notes that there was no opportunity for independently–sponsored project proposals to be put forward on an equal basis.

[2]/ These CAISO presentations describe a wide variety of proposed projects, large and small, that purport to meet some of the need created by the loss of SONGS. Nevada Hydro's TE/VS Interconnect and Lake Elsinore Advanced Pumped Storage ("LEAPS") projects, together, can meet much of this need, at a largely known cost and over a defined set of milestones. Nevada Hydro accordingly urges the CAISO to view these two projects together in its forthcoming analysis of the submittals in the CAISO's 2013 TPP Request Window process as a single solution that will address in a holistic fashion the needs brought about by the shutdown of SONGS. Nevada Hydro would observe that this holistic solution will be far more advantageous to ratepayers, and can be brought on line much sooner than any of the other, largely piecemeal set of alternatives that are being looked at to address energy needs in Southern California brought about by the SONGS shutdown.

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1. The level of detailed engineering and design already completed;
2. The reliability benefits identified by our consultants, Fred Depenbrock and ZGlobal;
3. Both the overall cost of the project, and the level of effort that has gone in to developing this cost estimate; and finally,
4. We have already completed the work required to determine precisely the routing of the project, including relevant environmental considerations.

Taken together, the TE/VS Interconnect is demonstrably much less expensive than other described projects, has a real route, brings more system benefits, and, with some cooperation from the State, could be operating as soon as 2015. As a result, Nevada Hydro hopes that the CAISO gives this project the favorable consideration that it merits in the upcoming Request Window project review phase of the TPP.

1. The TE/VS Interconnect

As you know, the TE/VS Interconnect is a proposed 500 kV, 32-mile transmission line that will interconnect the service territories of both San Diego Gas & Electric Company ("SDG&E") and Southern California Edison ("SCE"). The project is proposed as a new single-circuit 500 kV transmission line with a nominal design capacity of 1,500 MW linking SCE's existing 500 kV Valley-Serrano transmission system in western Riverside County and SDG&E's existing 230 kV Talega-Escondido transmission line (TL23030) in northern San Diego County.

New facilities associated with the transmission line include: (1) a new 500 kV Lake Switchyard at the northern end of the line; (2) a new 500/230 kV Case Springs Substation, including phase-shifting transformers at the southern end; (3) a new 500/115/20 kV Santa Rosa Substation; and (4) system voltage support.

The TE/VS Interconnect is primarily located on federal lands within the Cleveland National Forest ("Forest"). Federal Energy Regulatory Commission ("FERC") and the US Forest Service ("USFS") The jointly developed the transmission alignment through Forest lands, largely minimizing impacts to privately owned property, both within and outside Forest boundaries. As conditioned, the USFS has accepted this transmission alignment through the Forest as constituting an authorized use of Forest lands. The conditions imposed by the USFS on the project may be found in the Final Environmental Impact Statement ("FEIS") issued by FERC in connection with LEAPS. A copy of this FEIS was included on disk in our filing to your Request Window.

The project includes a significant number of network improvements and upgrades to both SDG&E's and SCE's existing transmission systems.[3] Improvements and associated upgrades to SDG&E's network include, but are not limited to: (1) the addition of an approximately 52 mile long, second 230 kV

[3]/ Most of these upgrades have been identified through the interconnect study process for LEAPS. Supporting material has been provided in our Request window CD–ROM in Attachment 6

circuit to SDG&E's existing 230 kV Talega-Escondido transmission line (TL23030) ("TE Line");[4] (2) improvements and associated upgrades to SDG&E's existing Escondido substation; and (3) rebuilding an approximately 8 mile long existing 69 kV transmission line on new steel poles within SDG&E's existing right-of-way.[5] Other identified improvements to the SDG&E transmission system include improvements and associated upgrades to the existing 230 kV Peñasquitos Substation.

SDG&E's existing 230 kV TE line is located within a 300 foot transmission right-of-way. The line is approximately 52 miles long and consists of approximately 213 structures, including 185 double-circuit lattice steel towers, 27 double-circuit steel poles, and one single-circuit 3 pole wood structure. One side of 32 along this line towers is occupied by a 69 kV circuit (TL6932). This segment is approximately 8 miles in length and is generally situated between State Route (SR) 76 and Old Castle Road. To accommodate a new 230 kV circuit on the existing towers, TL6932 will need to be relocated to new poles located within the existing right-of-way.

In addition, existing substations will have to be upgraded in order to accommodate the new 230 kV circuit. SDG&E's existing Talega and Escondido Substations will require new 230 kV terminal positions. In addition, depending upon the rating of the new 230 kV circuit, there may be overloaded breakers on the system that would have to be replaced.

With regards to SCE's network, improvements and upgrades are proposed to the Etiwanda Generating Station, Valley and Serrano Substations. Additional upgrades have also been identified along SCE's existing Etiwanda-San Bernardino-Vista 220 kV transmission line at SCE's existing San Bernardino Substation, at SCE's existing Vista Substation and at SCE's existing 500 kV Mira Loma Substation.

Additional descriptive material may be found in the Certificate of Public Convenience and Necessity application for the project, which can also be found on the Request Window CD–ROM in Attachment 4.

2. Reliability Benefits

There is no existing high voltage connection between the SCE and SDG&E systems. The September 2011 blackout clearly shows a need for power transfers under major contingencies that cannot be managed by the existing 230 kV lines. 500 kV interconnections are needed to handle problems caused by 500 kV contingencies. The size of both the SCE and SDG&E systems has grown to such a point that 230 kV lines are no longer adequate for the task of inter-utility flow management. The limit of flow management efforts or capability at 230 kV has now been exceeded. This situation has become even

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[4]/ The California Public Utilities Commission("PUC") issued a CPCN to SDG&E for the construction of the existing Talega-Escondido 230 kV transmission line in Decision No. 81069 on February 21, 1973. The 230 kV line was originally licensed and constructed using double-circuit structures (each with three phases of electrical conductors), with only one circuit installed. As a result, there exists an open or vacant 230 kV position over much of the route. The line was constructed in 1981 and is comprised of lattice towers and tubular steel poles.

[5]/ The existing 69 kV circuit currently occupies an unused 230 kV circuit position on the existing transmission structures along an approximately 8 mile long section of the existing Talega-Escondido transmission line that passes by SDG&E's existing Pala and Lilac Substations.

more challenging in view of the need to relocate a significant amount of generation in Southern California away from the coastal areas, where the quantity of existing generation facilities is likely to be significantly reduced because of once-through cooling ("OTC") restrictions that will come into effect by the end of this decade.

As we have shown in our Request Window filing, the TE/VS Interconnect will provide at least 1,800 MW of reliable supply to the SDG&E service area under CAISO's N-1/G-1 contingency testing conditions with SONGS and OTC plants down. It will do the same under N–1–1 conditions.

Further, if a cooperative effort were undertaken by SCE and SDG&E to use a portion of the Talega – Escondido 230 kV line path at 500 kV (and Nevada Hydro understands that this corridor is already permitted for 500 kV), the full capability of the 500 kV line from Alberhill to Case Springs (2,600 to 3,400 MW) could be available to meet the needs of both utilities.

3. Cost

The total cost for the project is presently estimated at nearly $750 million. This cost is based on the detailed project estimate provided by the constructor for the project, Barnard Construction. We developed network upgrade costs with SCE and SDG&E through the LEAPS interconnection process. Attachments 6 and 12 on the Request Window CD–ROM provide additional material that supports these cost estimates. Nevada Hydro is confident of the accuracy of these estimates and would be able to construct the project today at or under these costs.

By contrast, the other four projects listed on the attached chart that have cost estimates are presently estimated to cost from more than two times to more than six times what the TE/VS Interconnect would cost. As routing for these projects is developed, there is no telling what might happen to these estimates. While estimated project cost comparisons may not be the definitive factor that the CAISO weighs when it considers various advantages and disadvantages of competing projects, it is a very important factor indeed to ratepayers and to the California Public Utilities Commission ("CPUC"). Thus, it is a consideration that the CAISO ignores at its peril. The CAISO should accordingly accord significant weight to the fact that the TE/VS Interconnect would be, by far, the most economical of the projects that are currently under consideration. Further, it is the only project with a real, detailed, constructible cost estimate.

4. Routing and Environmental Reviews

If there is one thing that you should feel confident about with regard to the TE/VS Interconnect, it is that the routing has been thoroughly vetted by many agencies, both Federal and State.

First, the FERC and USFS developed the routing grid connection for the LEAPS facility through the LEAPS licensing application (FERC dockets P–11858 and P–14227). This NEPA–mandated process required public meetings, scoping, public and agency comments, numerous studies and ultimately the issuance of a draft and final EIS by FERC. In addition, Nevada Hydro worked closely with Forest staff to identify precisely each tower location, access and construction method. The Forest approved each tower location and erection technique.

Under the FERC licensing process, the USFS established proposed Section 4(e) conditions. As indicated in correspondence from Bernard Weingardt, Regional Forester to Philis Posey, Acting FERC Secretary, dated March 29, 2007: "We have no objection to a license being issued, subject to certain conditions necessary for the protection and utilization of National Forest System lands and resources affected by the [P]roject."[6] Thus, the Federal Government has scrutinized and approved fully 30 miles out of the 32–mile length of the project.

In addition, the CPUC has also analyzed the entire route under the California Environmental Quality Act ("CEQA") as part of its Certificate of Public Convenience and Necessity ("CPCN") approval process for SDG&E's Sunrise Powerlink. Based upon their analyses, the CPUC concluded that the routing for the TE/VS Interconnect was preferred over that of SDG&E's proposal[7].

Finally, the CPUC has commenced work on the TE/VS Interconnect, work that was interrupted when our former proceeding was halted. As we are now ready to refile with the CPUC, we anticipate that CEQA work will recommence promptly, and that all of the work previously done on the environmental review of the project at the state level will allow the CPUC's analysis to proceed quickly. Based on conversations we have had with the CPUC's environmental consultant, we are optimistic that the CPUC will be able to complete its review of and grant a CPCN to the TE/VS Interconnect project within a year after a new application has been filed.

By contrast, it goes without saying that the environmental review of any of the other projects that the CAISO is considering has not even begun and will require many years of effort before any of those projects could move forward to construction. Any estimate of the amount of time that would be required for any of these projects to move through the complex process of permit review would be speculative, but for the SDG&E-proposed 35-mile-long projects (2A and 2B), a three-year project development and permit review period would be extremely aggressive, and for its proposed 145-mile-long projects (1A and 1B), four-to-five years is an equally very aggressive estimate of how long it would take for the company to develop the necessary proponent's environmental assessment and for the CPUC to permit the project. As for the two projects proposed by SCE, they are not even far enough along to state a project length, much less an estimated project cost.

There can therefore be no question that when compared to the other alternatives being studied, the TE/VS Interconnect is, by far, the most advanced project from the standpoint of project permitting and routing.

5. Timing

The discussion just above demonstrates why the TE/VS Interconnect is much further along in the regulatory review process than any of the other competing projects, and that, as a result, it is capable of

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[6]/ Correspondence from Bernard Weingardt, Regional Forester to Philis J. Posey, Acting Secretary, Federal Energy Regulatory Commission (Re: Forest Service Final 4[e] Conditions for the Lake Elsinore Advanced Pumped Storage Project, FERC Project No. 11858), File Code 2770, March 29, 2007, p. 1.

[7]/ The FEIR for Sunrise may be found on the PUC web site at: http://www.cpuc.ca.gov/Environment/info/aspen/sunrise/toc-feir.htm.

being constructed and brought on line much more quickly than any of these other projects. However, that is not the end of the issue. In addition, it means that the proposed routing of the TE/VS Interconnect has been thoroughly analyzed on multiple occasions; that roughly 80% of the line has been fully engineered as a result of the established and approved routing through federal lands; that a full and detailed cost estimate for the project is now in your hands. Feel free to speak with Barnard Construction, and ask them whether they could construct the project with this information. It is doubtful that any of the so–called competing projects make a similar claim.

The project engineering for the TE/VS Interconnect is largely complete, relying upon sophisticated technical, engineering and site specific studies. The CPUC has already commenced its CEQA process, and the last CPUC proceeding had only a few active intervenors. Compare the four intervenors in our proceedings to the level of attention Sunrise received. Given the undefined and, in some cases, much longer routing of the other lines under consideration, how many intervenors might be expected in those proceedings? And given the issues that such interveners can raise, how long will it take for any of these other projects to grind through the permit process? Five years? Seven years?

In conclusion, we ask you to take the foregoing project cost, siting and timing considerations into serious account as you evaluate the other possible transmission projects that the CAISO is considering in connection with the shutdown of SONGS. We are persuaded to a moral certainty that when you look closely and realistically at the various plusses and minuses all of these projects, you will conclude that the TE/VS Interconnect project is, from all three perspectives -- cost, siting and timing -- the best and perhaps only project to meet the need created by the shutdown of SONGS.

Sincerely,

David Kates

cc: Steve Berberich
Keith Casey
Phil Pettingill

Proposed Transmission Solutions to SONGS

Alternative	Technology	Approximate Length	Approximate Reduced Generation	Approximate Project cost	Route evaluated?	Detailed Cost Estimate?	Environmental constraints?	Timing to construct
SCE Proposals								
Valley-Alberhill-Viejo-new Cougar	500 kV AC	?	?	?	no	no	Likely	Likely many years to complete permitting
Alberhill-Suncrest	500 kV AC	?	?	?	no	no	Likely	Likely many years to complete permitting
SDG&E proposals								
1A IV to N. inland	500 kV AC *Overhead*	145 Miles	1401 MW	$3.1B - $3.8B	no	no	Yes	Likely many years to complete permitting
1B IV to N. inland	HVDC *Overhead and Underground*	145 Miles	1401 MW	$4.7B - $5.7B	no	no	Yes	Likely many years to complete permitting
2A Valley to N. inland	500 kV AC *Overhead*	35 miles	1450 MW	$1.6B - $1.9 B	no	no	unknown	Likely many years to complete permitting
2B Valley to N. inland	HVDC *Underground*	35 miles	1450 MW	$3.3B - $4.0B	no	no	unknown	Likely many years to complete permitting
Nevada Hydro Proposal								
Valley/Serrand to Talega/Escondido	500 kV AC *Overhead and Underground*	32 miles	1800 MW	$750 M Total (Includes TE Line Upgrade)	yes *(FEIS issued, DEIR started)*	yes Barnard Construction	No	1 year+ from CPCN; CPCN in < 1 year