

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

Order Instituting Rulemaking to Integrate and  
Refine Procurement Policies and Consider Long-  
Term Procurement Plans.

Rulemaking No. 12-03-014

(Filed March 22, 2012)

**Opening Brief of The Nevada Hydro Company**

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Pursuant to the Rule 13.11 of the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”) and the Administrative Law Judge’s Instructions for Briefs in Track 4 (“Instructions”) issued November 4, 2013, in the above-captioned long-term procurement plan (“LTPP”) proceeding, The Nevada Hydro Company (“Nevada Hydro”) herein submits its Opening Brief for Phase 4 in the above captioned proceeding.

**1. Introduction**

As Nevada Hydro has mentioned in its previous filings, it has under development two projects that have been designed to assist the state to meet the challenges posed by the loss of the San Onofre Nuclear Generating Station (“SONGS”) by providing megawatts, voltage support and other ancillary services and flexibility to the system from within the load pocket. These closely related projects are the 500 MW Lake Elsinore Advanced Pumped Storage (“LEAPS”) facility (FERC Project Number P-14227) and the related Talega-Escondido/Valley-Serrano 500-kV Interconnect (“TE/VS Interconnect”). The projects are located roughly ten to twenty miles from SONGS.<sup>1</sup>

Nevada Hydro has reviewed the testimony submitted in this proceeding, and has reviewed other documents prepared by the California Independent System Operator (“CAISO”)<sup>2</sup>, which

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<sup>1/</sup> Nevada Hydro has described these projects, their permit path forward and some of the benefits the projects can provide specifically in light of the needs now identified in this proceeding in its Reply Comments of The Nevada Hydro Company on ALJ Gamson’s Policy-Related Questions Presented at the September 4, 2013 Prehearing Conference” R. 12-03-014, filed October 11, 2013.

<sup>2/</sup> See the CAISO’s Final Reliability Assessment Study Results posted on their web site at this link: <http://www.caiso.com/planning/Pages/TransmissionPlanning/20132014TransmissionPlanningProcess.aspx> While Nevada

together point to the threatened state of the southern California grid due to the loss of SONGS and to the apparent lack of adequate planning by any party to prepare for this contingency. As a result, entities otherwise responsible for assuring the reliability of the state's electric system are now engrossed in numerous studies, while what the grid truly needs, given California's long-term policy goals, is a project that can, in the shortest possible time period, significantly upgrade the weak linkage between the Southern California Edison ("SCE") and San Diego Gas and Electric Company ("SDG&E"), while at the same time proving access to substantial new clean energy resources. Unfortunately, other than Nevada Hydro, none of the parties to this proceeding has yet acknowledged that the only credible project that fills this bill is the combination of the related LEAPS and TE/VS Interconnect projects

As Nevada Hydro has stated to this Commission and to other state authorities, its projects are perfectly situated and designed to be the optimal solution to this very serious looming reliability challenge. Nevada Hydro has noted previously that the CAISO, the California Energy Commission and the Federal Energy Regulatory Commission ("FERC") have all previously evaluated these projects when the grid was in better condition. In all cases, the benefits of the project have been clear. With help from this Commission to expedite its upcoming Certificate of Public Convenience and Necessity ("CPCN") filings, one each for LEAPS and for the TE/VS Interconnect, Nevada Hydro again stands ready to deliver 1,800 MW to within a few miles of SONGS by 2016 and to have LEAPS fully operational by 2018.

Nevada Hydro's comments on the issues identified in the ALJ's Instructions follow.

**2. Should the CPUC authorize SCE and/or SDG&E to procure additional resources at this time for the purposes within the scope of this proceeding?**

Mr. Sparks' testimony provides an excellent summary of the significant problem faced by the CAISO, SCE and SDG&E in the area south of Los Angeles. The problems he identifies as resulting from the retirement of SONGS are both real and present. It is clear from Mr. Sparks' testimony that the entire system south of Los Angeles is in jeopardy of voltage collapse during

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Hydro is aware that the CAISO has not offered these reports into evidence, it is worth noting that the CAISO has identified nearly 40 pages of specific potential reliability issues just in the San Diego study area, and that it hopes to address many of these issues in their unreleased "Post-SONGS Mitigation Plan".

high load periods.<sup>3</sup> Even in lower load conditions, Mr. Sparks suggests that it will be necessary to operate enough generation to prevent a sudden blackout or major load-shedding event<sup>4</sup>, even if this would increase the overall cost of power to ratepayers. The ability to stop this hazard by the use of additional reactive support, a relatively quickly installed and lower cost remedy, is not sufficient, as Mr. Sparks notes.<sup>5</sup> Although not explicit in his testimony, it should be noted that the ratings for WECC Paths 43 and 44 are no longer proper reflections of the import capability to their respective systems. While the current wire ratings implicit in each path remains the same, the absence of SONGS makes them much less functional.<sup>6</sup> These paths must be re-evaluated for their capability promptly.

**3. If so, what additional procurement amounts should be authorized at this time? Please specify any calculation that leads to this position.**

Nevada Hydro has no comments on this issue at this time.

**4. What additional resources, if any, should be authorized to fill procurement needs? Should there be any requirements or restrictions on procurement amounts for any specific resources or categories of resources?**

Nevada Hydro's review of the record suggests that other parties have articulated three positions in this proceeding relative to this issue. First, perhaps curtailment is an option the Commission should consider. Second, new gas-fired generation is the solution. And third, new transmission should not be considered, as it is too uncertain. Nevada Hydro disagrees with each of these assertions while reminding the Commission that with some cooperation, its own projects, which will largely solve the underlying problem, can be on line well within the planning window being looked at in this proceeding and at far, far less cost than the mish-mash of potential alternatives now under discussion in this and in other venues.

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<sup>3</sup>/ Track 4 Testimony of Robert Sparks on Behalf of the California Independent System Operator Corporation ("Sparks Testimony"), p. 16, line 20 – 17, line 8.

<sup>4</sup>/ *Id.*, p. 16, lines 6–7.

<sup>5</sup>/ *Id.*, p. 16, line 24.

<sup>6</sup>/ *Id.*, p.16, Lines 1–18. Nevada Hydro understands that WECC's approach to path ratings is reactive, in that until there is a need or interest to make changes to a path rating brought to its attention, WECC takes no action. Since no formal complaint appears to have been brought to the WECC Technical Studies Subcommittee, no action to reflect the changed circumstances for these paths has been taken.

#### **4.1. Unless California is to become a third world country, curtailment should never have to be considered as an option to solve a reliability problem**

Nevada Hydro is frankly flabbergasted that anyone would seriously consider curtailment as a “solution” to the problem, partial or otherwise. First, NERC requires that service be maintained for both Class B and Class C contingencies. Clearly, there are huge social costs to the loss of load (either from controlled load shedding or uncontrolled blackouts), yet both SCE and TURN seem to be ignoring these societal costs in using their “net costs” construct. IEP points out, for example, that for SCE, TURN and others, “Costs are the capital and operating costs of the resources included in each scenario, while benefits are the capacity, ancillary services, and energy revenues. These “net costs” do not include societal costs associated with curtailment of firm load as a response to a critical contingency”<sup>7</sup>. Rightly, IEP points out that “TURN’s analysis fails to include the significant costs that would be incurred by customers if their firm loads are curtailed in order to maintain grid reliability. These costs could be as large as or larger than any net cost savings resulting from the CAISO using a less stringent reliability criterion.”<sup>8</sup>

Nevada Hydro therefore does not believe curtailment should be considered as any sort of credible alternative in this proceeding. Particularly as there *are* viable solutions, like Nevada Hydro’s two projects that are ready to meet this need on be operating as soon as 2016, the Commission should reject any further consideration of a curtailment option.

#### **4.2. New gas-fired generation should be excluded from further consideration, since other resources can fill the need addressed without spewing GHG into the atmosphere**

SCE asserts that new gas generation will offset old, inefficient resources and not adversely impact preferred resources.<sup>9</sup> However, this assertion ignores the difficulties of siting and paying for new gas-fired facilities in California. The experiences of the Carlsbad Energy Center which went through numerous permitting iterations with the California Energy Commission (“CEC”) and with local permit authorities over more than 10 years of

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<sup>7</sup>/ Rebuttal Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association Concerning Track 4 of the Long-Term Procurement Plan Proceeding (“IEP Rebuttal”), p. 14, line 20.

<sup>8</sup>/ *Id.*, p. 16, line 9.

<sup>9</sup>/ Track 4 Rebuttal Testimony Errata of Southern California Edison Company (Revised 10/24/13), (“SEC rebuttal”), p 19.

development<sup>10</sup> illustrates the difficulty of permitting new generation within urban load pockets where applicable air quality standards are not being attained. Further, the costs on a per-kWh basis of building new gas-fired peaking plants, which will run only rarely, will be extremely high.<sup>11</sup> SCE's assertion therefore, either requires an extremely difficult permit path to site new facilities within the load pocket, or an equally difficult permit path to site new generation outside of the load pocket along with the additional transmission to bring this new generation to the load pocket. Nevada Hydro does not believe that the Commission should rely on either of these related alternatives focused on new gas-fired capacity.

The fact is that cleaner, better, more reliable and more price-certain alternatives exist. Advanced pumped storage ("APS") can optimize the mix of resources more efficiently, while at the same time providing real-time ancillary grid support and flexibility that gas-fired generation ("GFG") is not designed to provide. The advantages of APS over new gas-fired capacity is especially clear in California, which is moving forward aggressively toward achieving its 33% renewable portfolio standard ("RPS"). Since most of the new renewable resources being procured by the utilities to comply with the RPS are variable in nature, what California particularly needs to help effectively integrate these clean, new resources will be fast-acting buffering capacity that can absorb excess generation (*e.g.* excess wind energy generated during off-peak hours) and release it to the grid during periods of peak demand. Gas peakers simply do not have this two-way capability, but APS unquestionably does.

Fast response capacity provided by facilities like LEAPS is far more versatile than what can be provided by GFG capacity. Thus, California's utilities should be procuring versatile fast response capacity in order to meet the needs identified in this proceeding without an additional GHG cost. Further, and as SCE failed to note, APS is clearly able to offset old,

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<sup>10</sup>/ See <http://www.energy.ca.gov/sitingcases/carlsbad/> for a history of the project before the CE that formally commenced in 2007, and <http://www.utsandiego.com/news/2013/Feb/16/nrg-looking-for-someone-to-buy-encina-electricity/> referencing the ten-year development process.

<sup>11</sup> See, for example, Rebuttal Testimony of Kevin Woodruff on Behalf of The Utility Reform Network Regarding Track 4–SONGS Retirement, p. 8, line 3.

inefficient GFG resources while optimizing preferred resources, and to do so far more efficiently than even new GFG facilities can.

SCE also questions the value of proposed preferred resources, noting that “there remains substantial uncertainty as to whether and how much cost competitive sources of Preferred Resources can deliver in the LA Basin area in time to meet LCR needs by the compliance date in for existing generators affected by OTC requirements.”<sup>12</sup> However, as Nevada Hydro has mentioned repeatedly, and contrary to SCE’s view, the proposed LEAPS project *is* located in the load pocket, less than 25 miles from the site of the now defunct SONGS facility, and it can be operating by 2018. Thus, SCE's testimony and argument on this particular point should be rejected.

SCE does correctly point out in its Rebuttal Testimony that it cannot rely on resources identified through the energy storage OIR (R. 10-12-007) as the purpose for the procurement that the Commission ordered the utilities to begin in its Decision in that proceeding that was adopted last month “appears to be market transformation. It is clearly not intended to meet LCR resource needs.”<sup>13</sup> SCE further notes that, as AB 2514 requires that procurement be cost effective, “up to 80% of the procurement obligation may be deferred if SCE does not receive sufficient bids that are economically or operationally viable.”<sup>14</sup> Nevada Hydro does agree with SCE on this point, and notes further that APS was explicitly excluded from the mandate ultimately adopted in that proceeding, apparently for the reason that APS is a mature and proven technology. Accordingly, APS must be explicitly taken into account in the resource mix being considered in this long-term procurement planning proceeding in order both to comply with the mandate imposed on the Commission by AB 2514 and to fully effectuate the intent of the Commission's decision (D.13-10-040) last month in the energy storage proceeding.

Of particular note on this point, the storage decision makes the following point at pages 31-32:

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<sup>12</sup>/ SCE rebuttal, p. 20, line 15.

<sup>13</sup>/ *Id.*, p. 24, line 20.

<sup>14</sup>/ *Id.*, p.24, line 21.

*"We emphasize that our decision to limit the size of pumped storage projects in the decision is not to discourage large-scale pumped storage projects. On the contrary, these types of projects offer similar benefits as all of the as all of the emerging storage technologies targeted by this program; it is simply their scale that is inappropriate for inclusion here. **We strongly encourage the utilities to explore opportunities to partner with developers to install large-scale pumped storage projects where they make sense within the other general procurement efforts underway in the context of the LTPP proceeding or elsewhere.**"*  
(Emphasis added.)

Consistent with this recent Commission policy pronouncement, Nevada Hydro will use this Commission's CPCN process to demonstrate the cost effectiveness of LEAPS. Nevada Hydro accordingly urges the Commission to provide time to allow for this case to be made, without first giving SCE a "go ahead" to procure far less preferable (and environmentally far more harmful) GFG resources as a result of any decision that it may reach in this proceeding.

#### **4.3. Mature transmission proposals should not be excluded from consideration merely because the IOUs' grandiose transmission proposals face huge permitting uncertainty**

IEP and others have pointed to some of the IOU's proposed transmission "solutions" (like SDG&E's proposed Imperial Valley to Mesa line) and noted that they are fraught with significant risks due to their length and routing.<sup>15</sup> Nevada Hydro agrees. To emphasize this point, IEP provided its Table 2, which identifies some transmission projects that did not meet their initial on-line date. However, for Nevada Hydro's TE/VS Interconnect at least, the fact that it had faced permitting delays in the past does not mean that it will face similar delays going forward. In fact, Nevada Hydro is ready to resubmit a complete application to the Commission that can be promptly processed without further delay.

Further, Nevada Hydro's TE/VS Interconnect does not share the same risks that these various IOU proposals face. Nevada Hydro has an exact route that has been fully assessed by both State and Federal resource agencies. Further, the project's construction contractor has developed a detailed cost estimate for the construction of the line as proposed and as assessed and mitigated by these agencies. Thus, IEP's suggestion for

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<sup>15</sup>/ See Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association Concerning Track 4 of the Long-Term Procurement Plan Proceeding, ("IEP Testimony"), p. 8 line 6.



treatment of transmission projects should be modified to accept the significantly advanced level of maturity for the TE/VS Interconnect project. With cooperation from the Commission in processing its CPCN application, Nevada Hydro is hopeful that approval from the Commission can be received in late 2014 and the TE/VS Interconnect could be on line as soon as mid-to-late 2016 to deliver up to 1,800 MW to within a few miles of SONGS.

In 2012, the CAISO itself recognized the need for a new 500 kV connection like this, between the SDG&E and SCE service territories. In testimony before this Commission in a proceeding involving SDG&E's proposed procurement of new gas-fired resources, Mr. Sparks there testified:

***Q. Are there any feasible transmission mitigation solutions that can meet the 650MW to 950 MW need?***

*A. As described above, the constraint driving these needs is the transmission system limitations between the SCE and SDG&E systems south of SONGS. During studies of the Sunrise Powerlink, the ISO studied transmission options to increase the transmission capability between these two systems in order to further reduce local generation needs in San Diego. However, the scope of the upgrades needed to meet a 650 MW to 950 MW need was essentially a new 500 kV line connecting the SDG&E system to the SCE system.<sup>16</sup>*

Notably, this testimony did not address the ramifications of SONGS being off-line. Now that SONGS is closed, this need for enhanced transmission between the SCE and SDG&E systems is a matter of far greater urgency.

**5. What process should the utilities use to fill any procurement amounts authorized at this time?**

Nevada Hydro believes that the so-called "no regrets" process mentioned by IEP is difficult to implement in a manner that would allow for a fair evaluation of all resources.<sup>17</sup> Over the years, Nevada Hydro has offered up LEAPS in a number of these so-called "no regrets" processes. For example, in its 2009 "All Source Request for Offers", SCE presented Nevada Hydro with a sample power purchase agreement containing heat rate matrices and milestones

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<sup>16/</sup> Testimony of Robert Sparks on Behalf of The California Independent System Operator Corporation, Application of San Diego Gas & Electric Company (U902 E) for Authority to Enter into Purchase Power Trading Agreements with Escondido Energy Center, Pio Pico Energy Center and Quail Brush Power, Application 1105-023, (2012), page. 9.

<sup>17/</sup> IEP Testimony, p. 30.

from CEC approval schedules! It was an arduous process to convert this process to one suitable for a hydroelectric facility. In the end, we were unable to incorporate FERC's hydro licensing approval schedule with the processes used by completing bidders. Today, different resources developed through different development milestone paths may be able to provide different products over different periods for different durations.

Further, the Commission has not yet moved far enough along in evaluating how the utilities should be procuring "flexible resources" so as to specify the appropriate set of criteria that should be evaluated when considering a project like LEAPS, which will offer far greater and broader scale benefits than the utilities' competitive procurement evaluation methodologies currently take into account. It is therefore incumbent upon the Commission, in this LTPP proceeding, to break the logjam that prevents optimal solutions to the urgent resources needs in Southern California created by the shutdown of SONGS -- optimal solutions like LEAPS -- to be actively considered in a non-discriminatory manner. That has not happened yet, but now is the time -- in Phase 4 of this LTPP proceeding -- for the Commission to take the needed brave next step toward the realization of the clean energy future that Californians want and that California law and policy demand. That needed next step is for the Commission to actively direct SCE and SDG&E to seriously consider LEAPS as the single best new energy resource that they could acquire to meet the overall resource needs created by the shutdown of SONGS as well as to do so in a manner that best comports with system reliability, that provides the best mix of reactive support, fast regulation, high flexibility and load following characteristics, and that can facilitate the effective integration of renewables better than any other type of resource.

**6. Are there other determinations the CPUC should consider, or conditions the CPUC should impose, regarding Track 4 procurement?**

First, Nevada Hydro would like to thank Mr. Sparks and the CAISO for so clearly setting out the parameters of the crisis the state is facing as a result of the loss of SONGS and of the once-through cooling ("OTC") coastal generating facilities. For example, Mr. Sparks clearly presented the timing and extent of generation retirements caused by both OTC compliance requirements and the effects of aging equipment in his Table 7.<sup>18</sup> He also provides the new generation

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<sup>18</sup>/ Sparks Testimony, p. 11.

assumptions on Page 10 of his testimony. The comparison of these two descriptions gives one pause to consider the large difference between the losses and gains in generation he forecasts. This is especially challenging in a growing system. In Table 7, Mr. Sparks notes a reduction of generation capability of 9,288 MW, whereas the increase in generation he notes on page 10 is 1,965 MW.<sup>19</sup> Thus, in the relatively near-term (from a generation planning, permitting and construction development perspective), the net “new” generation will be a loss of from 7,323 MW to 8,173 MW! Unfortunately, Nevada Hydro cannot foresee how this Commission or any other entity can make up this deficiency in any feasible timeframe, much less at a feasible cost to ratepayers.

Given the fact that the system in southern California has presently entered a period of substantial generation deficiency, and the situation is likely to get worse instead of better over the next decade, the need for new transmission is a natural alternative that this Commission must consider in the context of Phase 4 of this proceeding.

Nevada Hydro’s TE/VS Interconnect and LEAPS projects are critical components for solving the immediate capability need for the Los Angeles and SDG&E systems. As mentioned in its previous filings, Nevada Hydro has completed detailed development and environmental work. The TE/VS Interconnect can be in service by the summer of 2016, faster than any other large project or collection of smaller fixes can be implemented. Further, the TE/VS Interconnect and its 500 kV-permitted right-of-way can become the first phase of the solution to the longer-term problem. With ratings of from 2,600 MW to 4,500 MW (depending on coordinated planning choices), the use of 500 kV lines into the area between SCE and SDG&E can be the keystone of a major system upgrade that can provide the transmission capability to meet a large percentage of the replacement needs for generation retirements.

The first building block of this system is the TE/VS Interconnect. With that facility in place, 500 kV ties can be extended between the TE/VS Interconnect and Suncrest. As permitting may allow, the rebuilding of the Serrano-SONGS 230 kV line to 500 kV and looping it into a 500 kV bus at Talega would provide a robust 500 kV solution to the problem in the longer term. As the September 2011 blackout showed, the levels of flow needed to serve the area is more than 230

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<sup>19/</sup> It should be noted that the 850 MW Sentinel Peaker Project is actually in the Devers area, essentially out of the L.A. Basin, and thus making the in-basin additions to be 1,115 MW.

kV lines can handle. Also, since the point-to-point nature of DC transmission makes a network solution more difficult, DC lines may not be as practical as a 500 kV AC system.

While it may take several years to see a full transmission strategy come together, the TE/VS Interconnect is an important first step that will provide the needed reliability in 2016 while the other needed pieces are developed and brought into service.

In addition, one of the difficult issues identified in testimony addressing the need for reliability was the very large reactive power losses that results when it is necessary to supply imports into the Los Angeles Basin and SDG&E over the 230 kV system. Nevada Hydro notes that the load in the SCE system is the only one in WECC with a leading power factor at peak times. Nevada Hydro reviewed the WECC heavy summer load flow base cases provided by WECC on its website, and noted the following relative to SCE's forecasted load. Note that a positive load is the amount consumed from the system. A negative load is the amount supplied to the system. Loads for the SDG&E and PG&E systems do not show this characteristic

<b>Year</b>	<b>MW</b>	<b>MVAR</b>
2012	25,774	-2,175
2014	24,105	-2,594
2016	26,795	-2137
2018	26,553	-2,622
2020	27,687	-3,049
2021	28,227	-2,745

The verification of this planning assumption is an important check on how well the system will perform under contingency.

Finally, because of the significant benefits that APS will bring to the system, the Commission -- in this LTPP proceeding -- must allow LEAPS the opportunity to provide the needed resources. Nevada Hydro is confident that the IEP and others will oppose this suggestion, even though GFG cannot compete with LEAPS's fast response capacity and ability to provide ancillary services as needed in real time. Nevada Hydro is confident, however, that as the need identified in this proceeding is so large, the Commission cannot rely on any single

resource or resource mix to solve the crisis. Nonetheless, because of the unique characteristics of APS and the unique locational attributes specific to LEAPS, the Commission must direct SCE and SDG&E to actively and seriously consider LEAPS as an optimal resource to meet the needs it ultimately identifies as a result of the information adduced in this phase of this proceeding.

Particularly as large-scale pumped storage was specifically excluded from the procurement mandate adopted in the storage OIR in D.13-10-040, the Commission must give priority consideration to it here.

## 7. Conclusion

As Nevada Hydro has stressed in a variety of venues, without SONGS operating, the LEAPS and TE/VS Interconnect projects bring 1,100 MW of reliability to San Diego under normal operating conditions and can transfer 1,800 MW during emergencies. Thus, the projects can:

- Provide a reliability substitute for most of the SONGS facility (1,800 MW).
- Prevent system collapse during usual NERC and CAISO testing requirements.

In addition to these benefits, LEAPS, like all APS facilities:

- Is dispatchable in 15 seconds (with units spinning);
- Provides black start in 10 minutes;
- Provides full range of ancillary services; and
- Provides regulation, load following and voltage support.

Nevada Hydro has advised that it will construct both projects for roughly \$1.7 billion, whereas as the CAISO has noted, the alternatives that would substitute as SONGS replacements would cost at least twice as much to construct, face unknown -- and much longer -- approval paths and provide less benefits to the regional grid.<sup>20</sup>

Given the State's exacting clean energy policies, there is an unquestionable need for the electric power system in California to move toward an environmentally sustainable future,

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<sup>20/</sup> In their recent draft transmission plan, the CAISO, in Table 3.5-11, identified a number of Mid-Term and Long-Term (combined transmission & generation) alternatives to replace SONGS. This includes (in Alternative 1) over 1100 MW of new and replacement generation plus an additional 500- 1000 MVAR of reactive support needed by roughly 2018. In addition, the CAISO forecasts it would require an additional roughly 3000MW of generation by 2022. Simply assuming the costs for VARs at \$1-2, LEAPS can provide far more benefits and flexibility plus energy and other ancillaries for roughly the cost of the VARs alone. The CAISO's draft plan may be found at <http://www.caiso.com/Documents/Draft2012-2013TransmissionPlan.pdf>.

while still maintaining highly reliable and efficient service at the least possible cost. Given this policy imperative, there can be no doubt that the LEAPS and TE/VS Interconnect are the very best facilities that could be developed in the region in order to meet the challenges of:

1. The ever-increasing need for highly flexible resources;
2. The ever-expanding reliance in the region on variable renewable resources;
3. The evident and hidden limitations on power flows into the region;
4. The long-term imperative for California to move away from carbon-based energy resources; and,
5. The permanent shutdown of SONGS.

These projects are a near perfect fit with the overall mid-term and long-term needs of the system in Southern California. Further, with some cooperation from this Commission, and from other permitting authorities, the TE/VS Interconnect can be on line as soon as 2016, delivering up to 1,800 MW to within a few miles of SONGS, and LEAPS can be on line by late 2018.

Nevada Hydro, therefore, urges that the Commission to specifically direct SCE and SDG&E to actively and seriously consider LEAPS and the associated TE/VS Interconnect as the optimal resources to meet the need for post-SONGS resources identified in this proceeding,.

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