AMENDED APPLICATION FOR LICENSE OF MAJOR UNCONSTRUCTED PROJECT

EXHIBIT B
PROJECT OPERATION
AND RESOURCE UTILIZATION

BLUEWATER RENEWABLE ENERGY STORAGE PROJECT

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Federal Energy Regulatory Commission
Project Number: P-14227
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Approval for issue		
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EXHIBIT B– PROJECT OPERATION AND RESOURCE UTILIZATION

As required under 18 CFR 4.41(c), the Applicant (all references to the "Applicant" herein refer to The Nevada Hydro Company, Inc. which is owned by Bluewater Renewable Energy) must prepare "a statement of project operation and resource utilization." This statement must include:

1. A description of each alternative site considered in selecting of the proposed site;
2. A description of any alternative facility designs, processes, and operations that were considered.
3. A statement as to whether operation of the power plant will be manual or automatic, an estimate of the annual plant factor, and a statement of how the project will be operated during adverse, mean, and high water years;
4. An estimate of the dependable capacity and average annual energy production in kilowatt-hours (or mechanical equivalent), supported by the following data:
   a. The minimum, mean, and maximum recorded flows in cubic feet per second of the stream or other body of water at the powerplant intake or point of diversion, with a specification of any adjustment made for evaporation, leakage minimum flow releases (including duration of releases) or other reductions in available flow; monthly flow duration curves indicating the period of record and the gauging stations used in deriving the curves; and a specification of the critical streamflow used to determine the dependable capacity;
   b. An area-capacity curve showing the gross storage capacity and usable storage capacity of the impoundment, with a rule curve showing the proposed operation of the impoundment and how the usable storage capacity is to be utilized;
   c. The estimated minimum and maximum hydraulic capacity of the powerplant in terms of flow and efficiency (cubic feet per second at one-half, full and best gate), and the corresponding generator output in kilowatts;
   d. A tailwater rating curve; and
   e. A curve showing powerplant capability versus head and specifying maximum, normal, and minimum heads;
5. A statement of system and regional power needs and the manner in which the power generated at the project is to be utilized, including the amount of power to be used on-site, if any, supported by the following data:
   a. Load curves and tabular data, if appropriate;
   b. Details of conservation and rate design programs and their historic and projected impacts on system loads; and
   c. The amount of power to be sold and the identity of proposed purchaser(s); and
6. A statement of the applicant's plans for future development of the project or of any other existing or proposed water power project on the affected stream or other body of water, indicating the approximate location and estimated installed capacity of the proposed developments.

1.0 DESCRIPTION OF EACH ALTERNATIVE SITE

Before filing its previous application for Project No. 11858, the Applicant considered an alternative site for the project reservoir and several alternative alignments for the penstock. The Applicant's current proposal includes the upper reservoir site and penstock alignment recommended by the Commission in the Final Environmental Impact Statement prepared by the Federal Energy Regulatory Commission (Commission) and the U.S Forest Service[1] (FEIS) for project number P–11858.

1.1 Alternative Alignments for Northern Primary Transmission Line

The northern primary line will connect the powerhouse to Southern California Edison (SCE) existing 500 kV Valley-Serrano transmission line, in the unincorporated area of Alberhill in Riverside County. This intertie would connect to that segment of the existing 500 kV Valley-Serrano line that runs from SCE's Valley Substation in Romoland generally westward into Orange County, before turning north-westerly to the Serrano Substation in northern Orange County. In the Lake Elsinore area, this existing 500 kV line is located to the north and east of the I–15 Freeway. The northern primary transmission line would interconnect with the existing 500 kV Valley Serrano transmission line at the proposed Alberhill substation being developed by SCE. An application for the substation was filed with the California Public Utilities Commission (CPUC) in 2009, the CPUC has extended the deadline for this proceeding until December 19, 2022[2].

With respect to the northern primary transmission line, the Applicant considered a number of transmission alignments and interconnection locations in follow up on commitments made to the Forest Service in a meeting in December 2021. These alternatives included alignments with varying distances traversing Forest Service land including the originally proposed transmission alignment from the FEIS and three alternative alignments. The alternatives studied are illustrated in Figure B-2, Alternative Alignments for Northern Primary Transmission Line.

The alternatives were qualitatively assessed on the basis of fire risk, visual impact, environmental and cultural impact, constructability, and commercial considerations. The project is now proposing an alignment on the outskirts of the City of Lake Elsinore with 230 kV transmission line making undergrounding more practical.

1.2 Southern Transmission Line

With respect to the proposed southern primary transmission line described in the FEIS, the original proposal for Project No. 11858 included a southern connection to SDG&E's transmission line running adjacent to Camp Pendleton. The Applicant also reviewed alternative transmission alignments for the southern primary transmission line and undertook commercial analysis on the value of a connection with the existing SDG&E Talega–Escondido 230 kV line. Based on market demand and feedback received from Forest Service and other interested stakeholders, the southern primary transmission line has been deferred and is no longer included in the Applicant's Amended License Application, however may be added in future if market demand changes.

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[1] Federal Energy Regulatory Commission and United States Department of Agriculture, United States Forest Service, Trabuco Ranger District, Final Environmental Impact Statement for Hydropower License – Bluewater Renewable Energy Storage Project, FERC Project No. 11858, FERC/EIS-0191F, January 2007. A copy may be found in the Volume 3 of this Application.

[2] California Public Utilities Commission, D2112052 Order Extending Statutory Deadline, Proceeding: A0909022

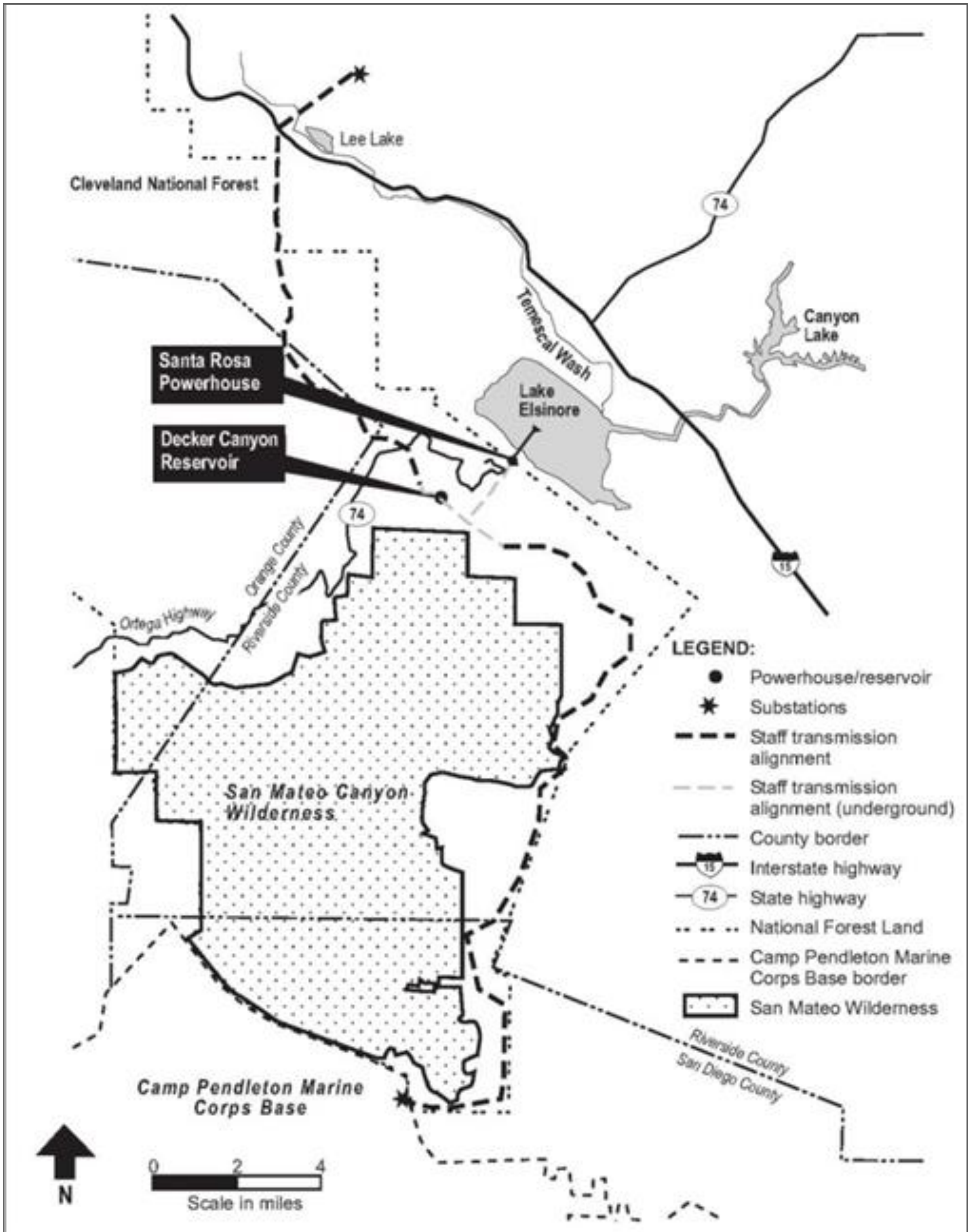

Figure 5. Staff alternative project facility locations. (Source: Elsinore Valley MWD and Nevada Hydro, 2004a, as modified by staff)

Figure B-1: Commission Described Project from FEIS
Source: FEIS

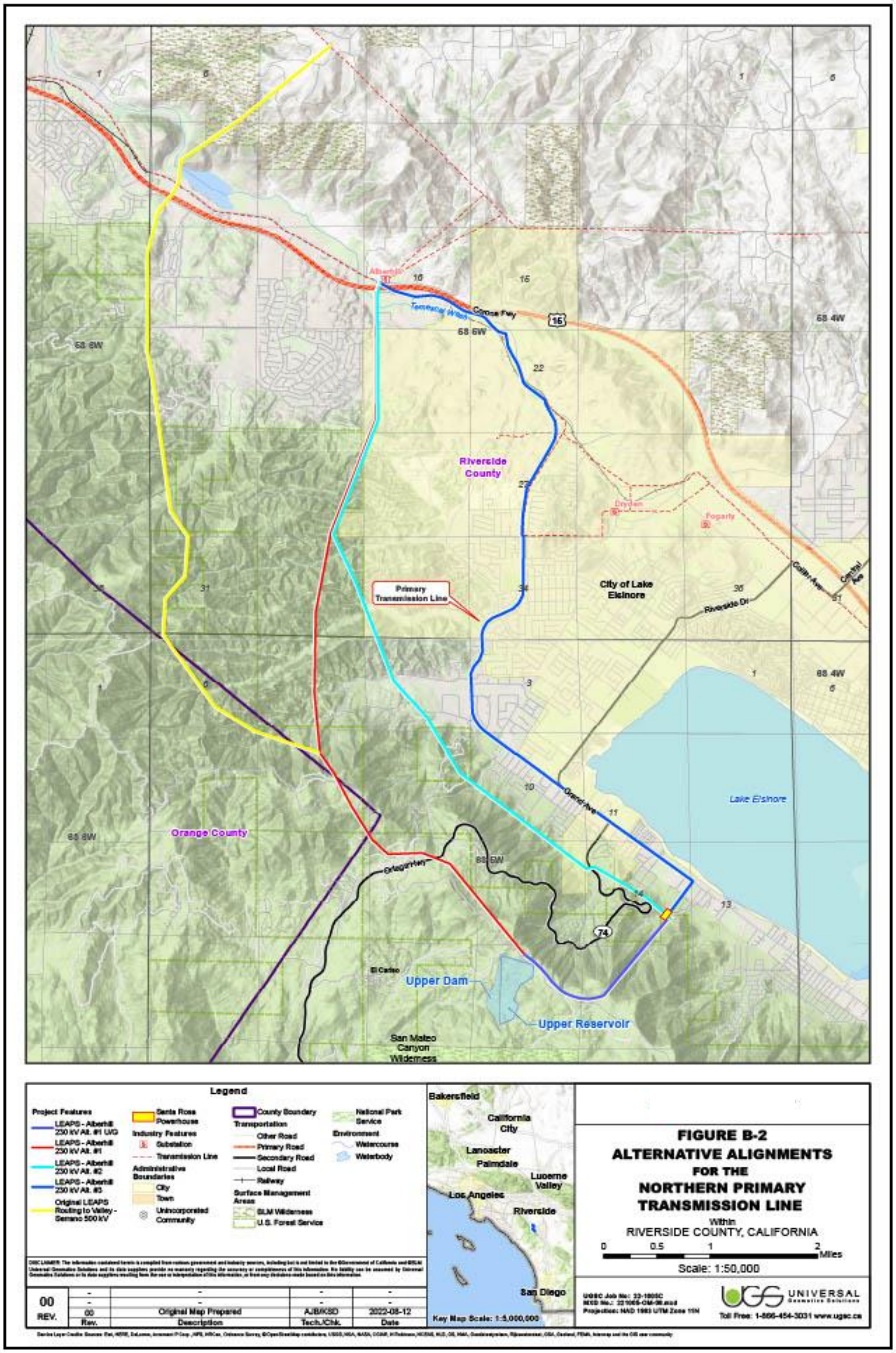

Figure B-2: Alternative Alignment for Northern Primary Transmission Line

2.0 PLANT OPERATION

2.1 Mode of Operation

The primary mode of operation of the Bluewater project be as an energy storage facility to balance the supply of electricity to the power grid. This would be accomplished by storing excess electricity at peak supply periods during daytime hours and weekends by pumping water from the lower to the upper reservoir, and generating energy to meet peak system demands by returning the water to the lower reservoir through the turbine-generators located in the power plant.

Project operation has been designed to minimize the adverse impacts on the surrounding region, maximizing benefits to the electrical grid, while also stabilizing lake levels and improving dissolved oxygen and other water quality parameters of Lake Elsinore.

In addition to the conventional energy storage/transfer mode, the plant will be capable of operating in a number of other secondary modes to provide benefits to the California electrical grid, as presented below in Section 2.4.

The plant will likely be operated from a control room located in or above the powerhouse. Automatic load dispatching will be coordinated with Southern California Edison and/or the California Independent System Operator CAISO. Local (manual) operation of the units will be available at power plant level.

2.2 Estimated Annual Plant Factor

Under normal operation, the plant has been designed to allow full plant generation of 500 MW for 12 hours, with pump-back over 12 hours. This allows daily cycling to the full plant capacity. Energy prices in southern California have increasingly followed the “duck curve” pattern with lowest prices occur during solar-producing hours (HE8-15) and higher prices occur during evening (HE17-20) and morning hours (HE5-7). Based on historical prices, the project would charge during solar-producing and overnight hours and discharge during morning peak hours and evening system peak hours.

On this basis, the maximum anticipated plant factor, assuming a seven-day week, would be 50% percent. This calculation is shown in Table B-1, Estimated Plant Capacity Factor.

Table B-1: Estimated Plant Capacity Factor

ESTIMATED CAPACITY FACTOR	
Installed Capacity (MW)	500
Weekly Operating Hours	84
Annual Operating Hours	4,3800
Annual MWH	2,190,000
Capacity Factor	**50.00%**

Source: The Hydro Company

In practice, the project may not operate in this maximum mode over the full year. For example, the forecasted seasonal energy prices do not demonstrate the same dramatic diurnal price variability during the fall in southern California. Thus, a plant factor in the order of 40 % is more likely, with the plant providing a variety of grid management services for some portion of the available generating period.

2.3 Operation During Adverse, Mean and High Water Years

The Bluewater Project would operate by pumping water out of Lake Elsinore in the storage mode and by allowing water to flow back into Lake Elsinore in the generating mode.

The Comprehensive Lake Management Agreement between the City of Lake Elsinore and the Elsinore Valley Municipal Water District specifies the minimum level of Lake Elsinore at elevation 1,240 MSL. The maximum lake level for hydro-generating purposes is set at elevation 1,249 MSL. To maintain these operating requirements, the Project has a long-term agreement to provide water to maintain levels in Lake Elsinore.

One of the enhancements being proposed by the Applicant versus that previously proposed under the LEAPS Project in FERC Docket No 14227 is the increase in volume of the upper reservoir to approximately 7,000 acre-feet without increasing the overall area of reservoir footprint. This is being proposed to enable the storage of additional water in the upper reservoir when flood conditions in Lake Elsinore exist or when abundant water is otherwise available for purchase and to enable to stabilization of lake levels at elevation 1,240 MSL even during drought conditions. The storage capacity as a function of freeboard and angle of reservoir slope is provided in Figure B-3.

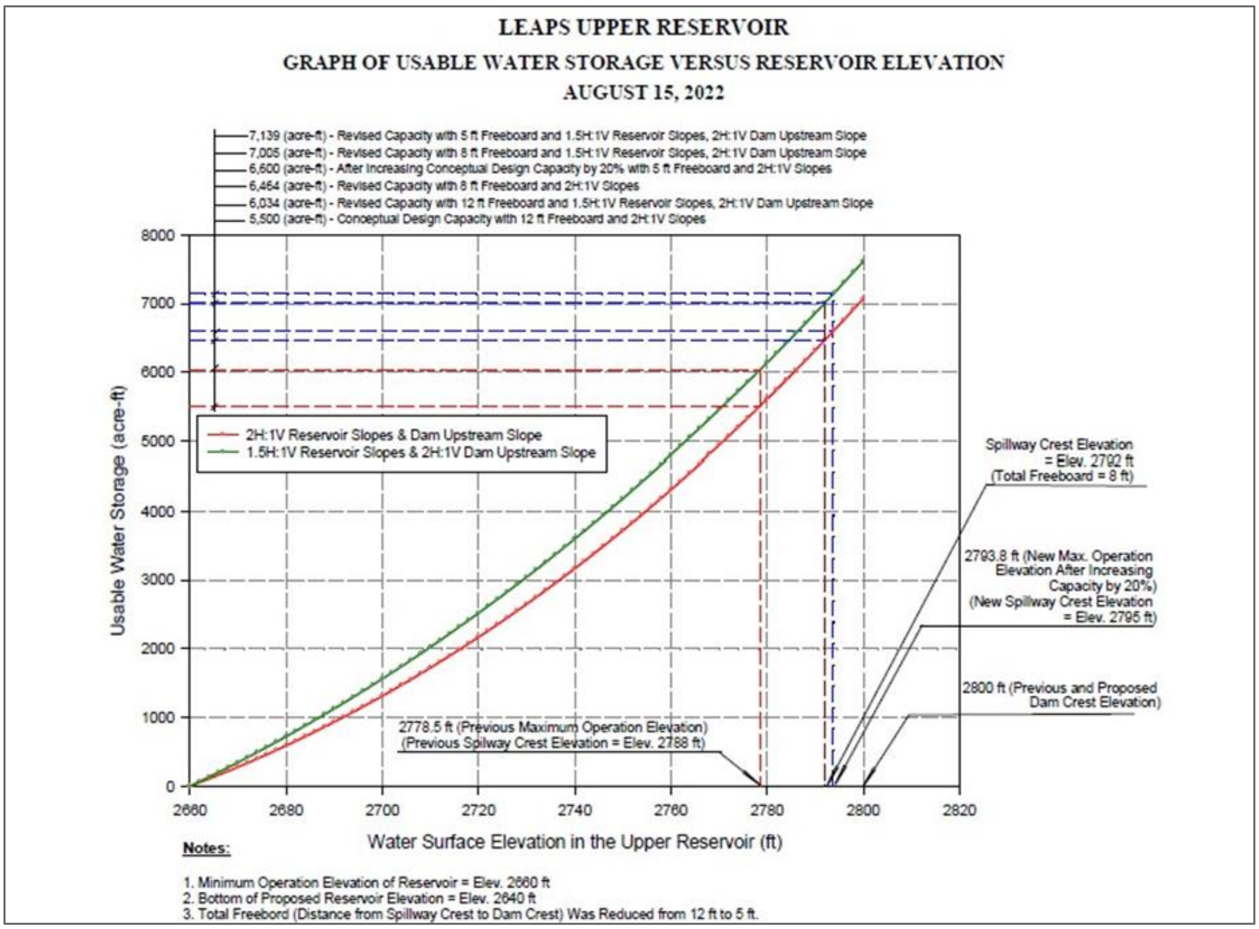

Figure B-3: Upper Reservoir Capacity as a function of freeboard and reservoir slope
Source: GENTERRA Consultants Inc. 2022

2.4 Secondary Operation Mode

A pumped storage plant can make significant contributions to the overall operation of the electrical system of which it is a part, because of the unique characteristics of the equipment involved. The secondary modes do not involve the energy storage function of the plant but make use of its ability to make rapid mode changes and quickly assume or reject load. Pump-turbine machines or groups of machines may have simultaneously different assignments, greatly enhancing the value of the plant to the efficient operation of the overall grid system. Some modes of operation may constitute a reserve for other modes. In secondary modes of operation, the plant can be used as follows:

- For reactive compensation of the system:
  - synchronous condenser operation picking up either from standstill or from pumping or generating modes of operation; and
  - while generating or pumping.
- For standby capacity contribution to the system:
  - stationary standby with spiral case/runner area watered and inlet valve closed.
- For spinning reserve with spiral case/runner area unwafered with unit running at synchronous speed;
  - speed-no-load with spiral case/runner area watered with unit running at synchronous speed; and
  - hot spinning reserve with spiral case watered, wicket gates partially open with unit running at synchronous speed.
- For rapid load change to meet sudden system demand:
  - rejection of pump load;
  - reversal from pumping to generating duty; and
  - "short circuit" turbine/pump operation.
- For system regulation:
  - load control; and
  - frequency control.
- For maintaining plant capacity:
  - intercycle pumping at times of reduced daily demand to sustain system load and augment upper reservoir storage levels; and
  - black start capability.

3.0 PLANT CAPACITY AND ENERGY PRODUCTION

The dependable capacity of the proposed facility is 500 MW.

The average annual energy production of the facility will depend on the plant utilization. Under a representative 5 day, 10 hour weekly generation schedule, the plant will produce 1,300,000,000 kWh (1,300,000 MWh) annually.

Section 2.0 Plant Operation describes a number of operating scenarios and their impact on the upper reservoir and on energy production. Spreadsheets showing the specific calculations used for the analysis of the energy generated by the plant, as well as upper and lower reservoir levels, are in Volume 3 of the September 2017 Application (Operational Spreadsheets) which may be found as an attachment to Exhibit B.

3.1 Available Flow

Note that flow duration is only applicable for plants where energy production is a function of flow availability. Since this is a closed loop pumped storage project, and not a conventional hydroelectric station, there is no critical streamflow and the dependable capacity is the same as the installed capacity.

Potential reduction in available "flow" includes evaporation and leakage. Evaporation is a natural part of the Lake Elsinore basin, and from none to 15,533 acre feet per year may be lost from the lake itself. This water loss will be made up by the EVMWD under the water supply agreement for the Project.

Because the upper reservoir is expected to be lined, water loss from leakage is expected to be de minimis.

3.2 Storage Capacity

An area–capacity curve is a graph showing the relation between the surface area of the water in a reservoir, the corresponding volume and elevation. A representative graph for the proposed upper reservoir is shown in Figure B-3 which provides a representative area capacity curve.

3.2.1 Gross and Useable Storage Capacity

The proposed upper reservoir will have a gross storage capacity of about 1,500 acre-feet greater than the useable capacity. As the upper reservoir is designed for a useable capacity of roughly 5,500 acre-feet, its gross capacity will be roughly 7,000 acre-feet.

3.2.2 Proposed Useable Storage Capacity Utilization

Section 2.0 describes a number of operating scenarios and their impact on the upper reservoir and on energy production. Spreadsheets showing the specific calculations used for the analysis of the energy generated by the plant, as well as upper and lower reservoir levels, are in the original 2017 Application (Operational Spreadsheets) as an Attachment herein to Exhibit B.

3.3 Estimated Hydraulic Capacity

Figure B-4 shows the estimated hydraulic capacity of the powerplant in terms of flow and efficiency for its 500 MW (500,000 kW) capacity output.

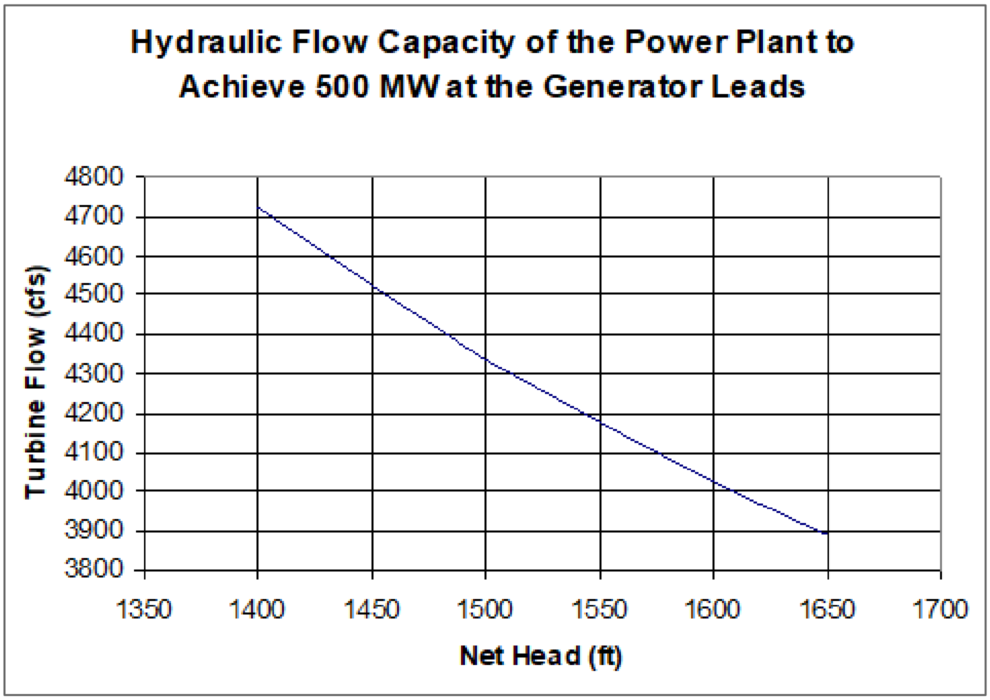

Figure B-4: Hydraulic Flow Capacity
Source: Voith Hydro

3.4 Tailwater Rating Curve

As this curve is only applicable for plants which flow into canals or rivers where the tailwater rises significantly depending upon the amount of flow down the river, this curve does not apply to this project since tailwater does not change with flow.

3.5 Powerplant Capability Versus Head

The plant's capability is 500 MW over the complete range from 1466 feet net head to 1640 feet net head, so this "curve" is a flat line, as is shown on Figure B-4.

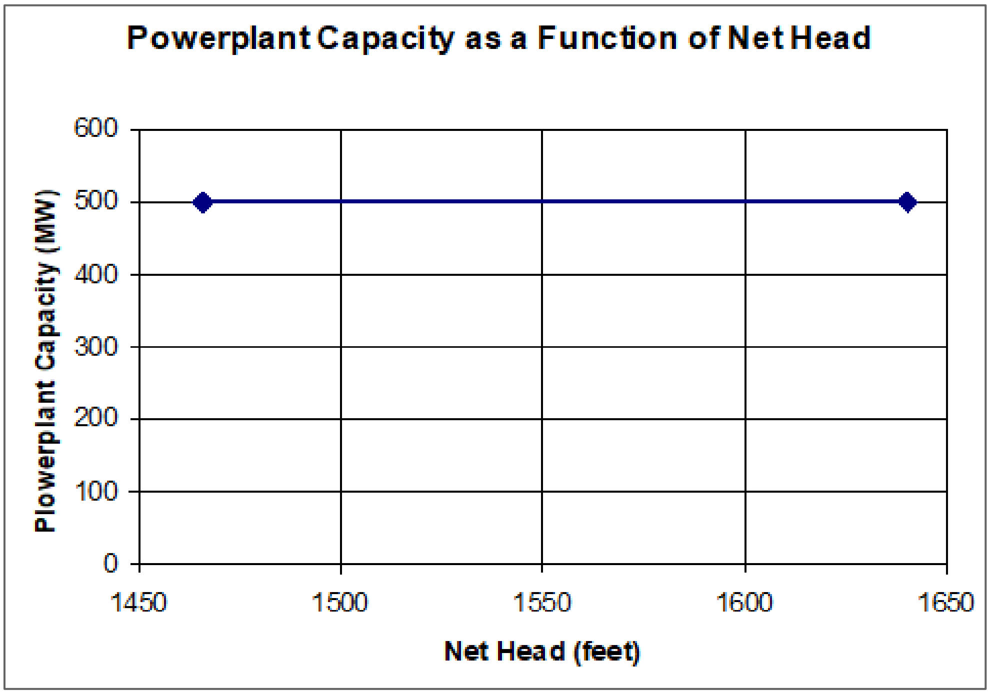

Figure B-4: Capacity as a Function of Net Head
Source: Voith Hydro

4.0 SYSTEM AND REGIONAL POWER NEEDS

The State of California is facing two major problems with regard to energy. The first is implementing an aggressive clean energy policy and the second in managing the loss of roughly 2,150 MW of electricity once produced by the San Onofre Nuclear Generating Station (SONGS), and the eventual additional loss of roughly 2,250 MW produced by the Diablo Canyon Power Plant (Diablo).

4.1 Building a clean energy state

California has among the most aggressive clean energy policies in the world. California has committed to a goal of reaching 100 percent renewable and zero-carbon electricity by 2045. This commitment will cause California to rely on an ever-greater percentage of renewable energy resources to meet its electric power needs. In addition, the State's projected transition to a transportation fleet that increasingly uses electricity rather than gasoline or diesel as its motive power means that California's electric power needs will continue to grow, even with the expected implementation of state-of-the-art energy efficiency programs throughout the State.

However, because most renewable energy resources are intermittent (with the exception of geothermal power), California faces a major challenge on its path to a clean and renewable energy future and it must start developing advanced technologies that can reliably and effectively buffer the intermittency of renewable generation with the variable demands of electricity customers over the course of a day.

There are only three available technologies that can effectively address the intermittent availability of renewable resources and California's daily electrical load. The first of these is demand response, which can help buffer the demands on the system during periods of peak load. However, in a largely post-industrial California, demand response cannot be reasonably expected to meet much more than 5% of the power system's needs. This is supported by the demand response to the recent CAISO Flex Alert in September 2022 in which 2,000 MW of demand was voluntarily curtailed during the peak 52,000 MW peak demand (~4%). Moreover, demand response is not effective during extreme weather events because while households may be willing to cycle their air conditioners off for up to 10 or 15 minutes an hour on a hot day, they are likely unwilling to dramatically curtail their air conditioning load when it is over 100 degrees outside at 3 p.m.

The second available buffering technology would be to install a fleet of gas-fired turbines. However, the combustion of fossil fuel creates GHGs, which will ultimately limit the ability of the State to deploy this technology broadly. Moreover, gas turbines can operate and produce power when the system has insufficient renewable generation to meet power needs, but gas turbines simply cannot absorb excess power during those hours when there is an overabundance of renewable generation (which will be increasingly the case as California deploys more and more renewable resources over the next 5 to 10 years).

The third available buffering technology – advanced storage – has none of the limitations of demand response or the drawbacks of an increased reliance on gas generation. Storage is clean, green and cost-effective. Storage can easily absorb excess renewable generation when the wind blows and during the height of the day when solar generation will often exceed demand. The potential of storage is virtually limitless. California will be able to build as much electricity storage capacity as it needs while complying with environmental restrictions. Some of that storage, mostly in the form of batteries, will necessarily be located on the distribution grid to help buffer local distributed generation from rooftop photovoltaic systems.

Under the oversight of the CPUC, the State's utilities have signed contracts for well over 10,000 MW of new renewable generation resources, the bulk of which have not yet come on line. When these new renewable projects start coming on line later in this decade, California will be faced with major challenges to the stability of its grid, especially in Southern California where the hydroelectric resources (which can provide supplemental power when renewables are not producing to their full capacity) are much less abundant than in the northern part of the State. Further, delivery of needed energy to the south from the northern part of the state during high demand periods can, does, and will cause costly congestion issues on the main transmission paths linking the north to the south

There is only one technology that can accommodate the significant potential for over-generation that the added new renewables will create, while, at the same time, providing large and reliable amounts of power during periods of peak load, and in a manner that follows load precisely and can, as a major bonus, provide abundant ancillary services, including fast regulation and fast ramping. That technology is advanced pumped storage.

Storage has been a subject of much discussion in California in the past. The CPUC, California Independent System Operator (CAISO) and the California Energy Commission have all initiated proceedings to evaluate the long-term role for storage, including extended workshops assessing the long-term value of storage for California. Utility executives have characterized storage as the "Holy Grail" of the clean energy future.

4.2 Coping with the loss of SONGS and Diablo

The landscape of electric power supply in Southern California fundamentally changed with the retirement of SONGS in 2013. Compounding this impact is the impending effects of the restrictions of once-through-cooling for existing and future generating stations along the Pacific coastline, and the potential end of life decommissioning of the Diablo Canyon Power Plant

The retirement of SONGS has removed 2,150 MW of generation from Southern California. Because of its many years of high operating factor and utility reliability, economic planners for the area had developed a system highly dependent on its presence at full output. With its retirement, system reliability in both San Diego and the Los Angeles basins has been significantly diminished. An additional reduction of 2,250 MW will eventually occur with the retirement of Diablo, further exacerbating the situation.

Also, the cost of electricity to customers in this area has shown a spike upward. This is likely due to a combination of both the loss of the low cost of energy from SONGS itself and the loss of SONGS ability to backstop imports of more costly power from external resources rather than using less costly internal generation. Further, since the loss of SONGS, the consumption of natural gas has begun trending upward, this is due to the roughly 2.2 GW of electricity supply lost when the plant shut down being replaced with 1.8 GW of new natural-gas fired power plants

Compounding this impact to reliability is the impact of the State California Water Resource Control Board (SWRCB) performance criteria for mitigating the effects of the use of water for generation cooling that is discharged into the ocean.

An important effect of these two decisions has been to put emphasis on the need for the use of transmission to bring lower cost power into the San Diego and Los Angeles basins. Fossil-fueled generation near the high population density coastal area will be both more difficult to permit and more expensive to operate than has been enjoyed from those existing units that had once-through-cooling. Also, a review of the proposed renewable generation in the CAISO generation queue shows that much of it is well back from the coast and will put additional stress on a transmission system that must be made more robust to accommodate it.

The problem is that the grid manager is going to have to operate the system to assure that the energy produced is able to get to the load when needed. This will require a lot of new transmission and a means to manage the various resources (load following, fast response to outages, quick start, black start, etc.). These renewable resources are widely diverse in the time and location of their energy production. The Applicant's Proposed Project has been designed precisely to meet these needs; and meet them in a cost effective manner.

4.3 The Advantages of Storage

The Proposed Project provides the State with a variety of cost-effective enhancements, including increased reliability and more efficient use of grid resources. Grid benefits include the full range of ancillary services, shifting on-peak to off-peak hours, providing 500 MW of generation near the load pocket and the storage of energy produced during off-peak hours for use during peak-demand hours. Most importantly, the Proposed Project will dramatically enhance the ability of the grid to effectively integrate, and make much better overall use of, a large amount of the variable energy production in Southern California. This can include off-peak power generated by efficient, baseload generation sources, (including geothermal generation located in the Imperial Valley) wind-generation located in the Tehachapi region, solar thermal generation in the Mojave area as well as other existing and planned renewable resources located throughout and beyond Southern California.

In terms of ancillary services, the Proposed Project provides 1,100 MW of regulation to support grid operations the integration of intermittent renewable resources, and provides highly responsive load following capability. This, combined with the ability to provide voltage support, will help the grid manager effectively and efficiently operate an increasingly complex grid in the Southern California electrical region.

Because the Proposed Project can store off-peak power, including wind, solar and geothermal energy, the facility's operation will further the objectives of California's Renewable Portfolio Standards (RPS) and greenhouse gas (GHG) emission-reduction standards. The Proposed Project can also eliminate the need to construct new fossil fuel-burning power plants. Moreover, the Project's dispatchable pumping load will enable the most efficient and renewable generation sources on the Southern California grid to operate more hours each day. The efficient baseload energy generated during non-peak hours that the Proposed Project will absorb and store for later use can then be used to displace the operation during peak periods of those generation plants that are the least efficient and most costly to operate.

Finally, advanced pumped storage facilities like the Proposed Project are able to respond rapidly to continuously changing conditions and, thereby, enhance the maintenance of system-wide reliability. Pumped storage generation provides unique strategic, operational, and economic benefits, resulting in reduced operating risks, increased total efficiency, increased critical system control and reliability, and providing more value to the ratepayers. Pumped storage is widely accepted as a mature technology with proven reliability and effectiveness. It is currently the only proven technology available for storage of large quantities of energy and is the most efficient form of energy storage available.

4.4 The Proposed Project Provides a Real Solution to Southern California Electricity Constraints

The Proposed Project is a key project that will help alleviate the resource constraints that are posed by the loss of SONGS, the eventual loss of Diablo, and the supply and demand constraints more generally in Southern California. The project is an effective, timely and less costly way than other proposed electricity resource projects.

Those concerned about a solution should know that the Proposed Project will provide numerous system benefits including:

- 500 MW of highly flexible and fast-ramping generation;
- A dramatic increase in the ability of the Southern California grid to absorb and integrate variable renewable generation, especially the absorption of off-peak resources and surplus wind energy that would otherwise have to be curtailed as the Proposed Project also provides 600 MW of load for off-peak renewable wind generation;
- 500 MW of carbon-free electricity at periods of peak demand;
- High quality MVARs at a cost that would be roughly half that of static VAR compensators;
- Local capacity in that portion of the SCE load pocket that has been most highly impacted by the loss of SONGS and the eventual loss of Diablo;
- Potential transmission congestion relief; and,
- A dramatic enhancement in overall system reliability in southern California.

Moreover, as discussed above, advanced pumped storage is, and as more and more variable renewable resources are interconnected, will increasingly be, a valuable system asset. There is no such capability in Southern California. Fast starting, quick reversal between pumping and generating, and very high ramp rate capability provides grid operators with a tool for system control like none other.

In addition, the Proposed Project can:

- Provide a reliability substitute for most of the SONGS facility and potentially the Diablo facility;
- Prevent system collapse during usual NERC and CAISO testing requirements.
- Is dispatchable in 15 seconds (with units spinning);
- Provides black start in 10 minutes;
- Provides a full range of ancillary services; and,
- Provides regulation, load following and voltage support.

4.5 Power Production, Load and Operations

The Proposed Project will provide 500 MW of energy for delivery into the grid. The unit could pump for 12 hours and then deliver energy or ancillary services for 12 hours. Pumping energy is greater than the production capability of the unit. The pumping load to move the water from the lower reservoir to the upper reservoir will require approximately 600 MW of energy, generally consumed during off peak periods or during overgeneration conditions. Estimated power to be used on–site, so called “parasitic loads” will total approximately 2.5 MW or less.

4.6 Conclusion

The competitive benefits described in the present filing demonstrate a significant energy cost reduction to ratepayers when compared to alternate sources of supply for new peak generation . Diversification of the power portfolio would also be achieved, thus reducing dependence on natural gas prices.

In addition to economic benefits, the project would provide the system operator significant benefits of ancillary services including regulation and operating reserves, key tools to manage a very complex state grid.

Diversification of the power supply matrix and relief of on-peak transmission constraints are issues that will be in the foreseeable future important drivers for energy policy in the state of California that should focus the attention on providing a diverse and cost-competitive alternative for ratepayers.

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, while still maintaining highly reliable and efficient service at the least possible cost. Given this policy imperative, the demonstrated history that the Proposed Project is needed, and the fact that the Proposed Project addresses Southern California's mid- and long-term power system needs, there can be no doubt in the mind of anyone who is serious about meeting the State's policies that the Proposed Project is the best project that could be developed in that 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 intermittent 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 and Diablo nuclear power plants.

Pumped Hydro Storage projects, such as Bluewater, have been acknowledged by regulatory and system-planning authorities that they are needed assets for the region. Moreover, these projects are a near perfect fit with the overall mid-term and long-term needs of the system in Southern California. As a result, regulators should embrace these projects and do everything within their power to help smooth their path forward. Not to do so would be a shame, both for the reliability and the flexibility of the grid of the future and for the ratepayers who depend on their leaders to plan for and oversee the implementation of an electric power system that is the cleanest, most reliable and most cost-effective system achievable.

5.0 FUTURE DEVELOPMENT PLANS

The project, as described in this Application, constitutes the full development of the hydroelectric resource presently envisioned at this location. Although it is not possible to fully understand the future power generation needs of Southern California, the Applicant has no current plans for any future expansion of hydroelectric development at this site.

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