DRAFT BOARD DOCUMENT BD 2024-XX



# CERTIFICATION AND FINANCING PROPOSAL

# POME BESS PROJECT IN SAN DIEGO COUNTY, CALIFORNIA

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# **EXECUTIVE SUMMARY**

# POME BESS PROJECT IN SAN DIEGO COUNTY, CALIFORNIA

#### **Project Summary**

Project Name:	Pome BESS Project.		
Project Sector (Type):	Sustainable energy (energy storage)		
Objective:	The purpose of the Project is to increase the energy storage capacity of the California grid, which will allow the system operator to manage the grid more efficiently and reduce the use of ramp-up/ramp-down fossil- fuel power generating plants. The Project will support a more reliable power grid by minimizing power disruptions and reducing energy losses resulting from mismatches in supply and demand, as well as assure the optimum use of electricity from renewable energy sources integrated into the grid.		
Expected Outcomes:	<ul> <li>The installation of an energy storage facility with a capacity of 100 megawatts of alternating current (MW<sub>AC</sub>) is expected to produce the following results.</li> <li>Avoid the emission of approximately:<sup>1</sup> <ul> <li>31,854 metric tons/year of carbon dioxide (CO<sub>2</sub>).</li> <li>46 metric tons/year of nitrogen oxides (NOx).</li> <li>0.811 metric tons/year of sulfur dioxide (SO<sub>2</sub>).</li> </ul> </li> <li>Store and deliver up to 146,000 megawatt-hours (MWh) of energy per year.<sup>2</sup></li> </ul>		
Population to Benefit:	353,700 residents (128,750 households). <sup>3</sup>		
Sponsor:	Eolus North America, Inc.		
Borrower:	Pome BESS LLC, as Construction Borrower. Pome BESS Class B Member LLC, as Term Borrower.		
NADBank Loan Amount:	Up to US\$60.0 million.		

<sup>&</sup>lt;sup>1</sup> CO<sub>2</sub>, NOx and SO<sub>2</sub> calculations are based on the potential emissions avoided as a result of charging and discharging 146,000 MWh/year of electricity from the sale of energy based on the California energy matrix. The related emission factors are: 0.218178 metric tons/MWh for CO<sub>2</sub>; 0.000318 metric tons/MWh for NOx and 0.0000056 metric tons/MWh for SO<sub>2</sub> (source: <u>California Electricity Profile 2022 - U.S. Energy Information Administration (EIA)</u>).

<sup>&</sup>lt;sup>2</sup> Estimate based on information provided by the Sponsor. The Project is expected to complete 365, four-hour charge/discharge cycles per year.

<sup>&</sup>lt;sup>3</sup> The estimates consider the population benefitted during one cycle of the BESS.

# **CERTIFICATION AND FINANCING PROPOSAL**

# POME BESS PROJECT IN SAN DIEGO COUNTY

# **1. PROJECT OVERVIEW AND EXPECTED OUTCOMES**

The proposed project consists of the design, construction and operation of a 100-MW<sub>AC</sub>, fourhour duration battery energy storage system (BESS), with a step-up substation for interconnection in the City of Poway, San Diego County, California (the "Project"). Electricity from the grid will be stored and delivered through a Gen-Tie line that interconnect the BESS with San Diego Gas & Electric (SDG&E) infrastructure.<sup>4</sup> The electricity and products generated or enabled by the BESS (ancillary services) will be sold in the wholesale electricity market operated by CAISO.<sup>5</sup>

The purpose of the Project is to increase the energy storage capacity of the California grid, which will allow the system operator to reduce the use of ramp-up/ramp-down fossil-fuel power generating plants and manage the grid more efficiently. The Project will support a more efficient and reliable power grid by minimizing power disruptions and reducing energy losses resulting from mismatches in supply and demand, as well as assure the optimum use of electricity from renewable energy sources integrated in the grid. The Project is expected to store up to 146,000 MWh of energy a year. As a result, the Project will displace the emission of an estimated 31,854 metric tons/year of  $CO_2$ , 46 metric tons/year of  $NO_2$ .<sup>6</sup>

# 2. ELIGIBILITY

# 2.1. Project Type

The Project falls within the eligible category of energy storage under the sector for sustainable energy.

<sup>&</sup>lt;sup>4</sup> A Gen-Tie line is a 69 kV transmission line built to connect the Project into the power grid through the existing POME substation.

<sup>&</sup>lt;sup>5</sup> Ancillary services are those required to support the reliability of the electricity grid. For CAISO these services include regulation up, regulation down, responsive reserves and non-spinning reserves.

<sup>&</sup>lt;sup>6</sup> CO<sub>2</sub>, NOx and SO<sub>2</sub> calculations are based on the potential emissions avoided as a result of charging and discharging 146,000 MWh/year of electricity from the sale of energy based on the California energy matrix. The related emission factors are: 0.218178 metric tons/MWh for CO<sub>2</sub>; 0.000318 metric tons/MWh for NOx and 0.0000056 metric tons/MWh for SO<sub>2</sub> (source: <u>California Electricity Profile 2022 - U.S. Energy Information Administration (EIA)</u>).

# 2.2. Project Location

The Project will be developed on approximately 4 acres of private land in the City of Poway, San Diego County, California. The Project is located approximately 27 miles north of the U.S.-Mexico border and 17 miles Northeast of the city of San Diego. The Project will be constructed at the following coordinates: latitude: 32°56'24.0"N and longitude: 117°01'55.2"W. Figure 1 illustrates the geographic location of the Project.

City of Poway City of Poway Ban Diego Tijuana

## Figure 1 PROJECT LOCATION MAP

# 2.3. Project Sponsor and Legal Authority

The private-sector project sponsor is Eolus North America, Inc. (the "Sponsor" or "Eolus"), which will use a special-purpose vehicle, Pome BESS LLC ("Pome BESS" or the "Project Company"), to implement the Project. Pome BESS is a Delaware limited-liability company established in September 2020 and based in California.

# 3. CERTIFICATION CRITERIA

## **3.1. Technical Criteria**

#### 3.1.1. General Community Profile

According to the U.S. Census Bureau, the population of San Diego County in 2020 was 3,298,634, which represented 8.3% of the state population.<sup>7</sup> The main economic activities are: Educational, health services and social assistance (21.5%); professional services (16.9%); entertainment and food services (10.5%); finance, insurance and real estate (6.3%).<sup>8</sup>

The implementation of the Project is expected to benefit San Diego County by improving grid reliability, increasing energy efficiency and maximizing renewable energy use, while reducing the use of ramp-up/ramp-down fossil-fuel power generating plants. The 100-MW<sub>AC</sub> BESS will be capable of storing up to 400 MWh of electricity per day, the equivalent of serving 353,700 customers (128,750 households) for four hours.<sup>9</sup>

The Project is also expected to benefit San Diego County by creating employment opportunities and additional income during its construction and operation. The jobs expected to be generated include up to 120 during peak construction and up to seven jobs during Project operation.

#### 3.1.2. Energy Storage in the U.S.

The transition to a low-carbon, and eventually zero-carbon grid, provides challenges and opportunities as increasing amounts of renewable energy are incorporated into the electric system. One of the main challenges is the intermittent nature of renewable energy sources, such as wind and solar. Grid operators must have the capability to regulate and maximize the efficient use of electricity in the grid from both baseload and intermittent sources. One of the simplest and most efficient solutions is the implementation of energy storage systems.

Energy storage is a key tool for providing more flexibility to power grids in the United States. In July 2023, the U.S. Energy Information Administration (EIA) released the latest figures on the capacity of large-scale battery storage systems. According to the EIA, at the end of 2022, the total installed capacity of large-scale BESS in the U.S. was 8,827 MW, a 79% increase over the amount reported in 2021. Figure 2 shows the capacity of large-scale BESS in the U.S. in 2022.

<sup>&</sup>lt;sup>7</sup> Source: U.S. Census Bureau, (<u>P1: RACE - Census Bureau Table</u>).

<sup>&</sup>lt;sup>8</sup> Source: U.S. Census Bureau, (<u>San Diego County, California - Census Bureau Profile</u>).

<sup>&</sup>lt;sup>9</sup> The estimates consider the population benefitted during one cycle of the BESS.



Figure 2 U.S. LARGE-SCALE BATTERY STORAGE ENERGY CAPACITY BY REGION IN 2022 (MW)

Source: EIA, 2022. *Form EIA-860 Early Release, Annual Electric Generator Report* Note: ISO=independent system operator; RTO=regional transmission organization

As shown in Figure 2, about 77% of large-scale battery storage capacity in the U.S. is installed in the regions covered by the California Independent System Operator (CAISO) and Electric Reliability Council of Texas (ERCOT).<sup>10</sup> The Project will be constructed within the CAISO service area, adding to the 4,679 MW of existing capacity serving California.

The market for installing BESS in the U.S. is steadily growing, and its legal framework has evolved. In February 2018, the U.S. Federal Energy Regulatory Commission (FERC) issued FERC Order 841, which requires ISOs and RTOs to remove barriers to the participation of electric storage resources in the capacity, energy and ancillary service markets.<sup>11</sup> Each ISO/RTO under FERC jurisdiction was required to revise its tariff to include market rules that recognize the physical and operational characteristics of battery storage resources and to implement the revisions upon approval of tariff compliance by FERC.<sup>12</sup>

According to EIA, battery storage capacity has been increasing since 2021. Project developers have reported to EIA their plans to continue the installation of large-scale BESS in the United

<sup>&</sup>lt;sup>10</sup> Source: EIA, *Battery Storage in the United States: An Update on Market Trends*, July 2023, (<u>https://www.eia.gov/analysis/studies/electricity/batterystorage/</u>).

<sup>&</sup>lt;sup>11</sup> Independent system operators (ISOs) and regional transmission organizations (RTOs) are independent, federally regulated non-profit organizations that ensure reliability and optimize supply and demand bids for wholesale electric power.

<sup>&</sup>lt;sup>12</sup> Source: EIA, *Battery Storage in the United States: An Update on Market Trends*, August 2021, (<u>https://www.eia.gov/analysis/studies/electricity/batterystorage/pdf/battery\_storage\_2021.pdf</u>).

States, reaching more than 30 GW by the end of 2024 and to install an addition 9 GW by the end of 2025.<sup>13</sup> Figure 3 shows the trend as reported in 2023.



Figure 3 **U.S. BATTERY STORAGE CAPACITY (GW)** 

Source: EIA. Preliminary Monthly Electric Generator Inventory, November 2023.

#### **California Energy Profile**

In addition, most policy actions involving energy storage have been at the state level and include setting procurement mandates, establishing incentives and requiring that storage be incorporated into long-term planning mechanisms. California has introduced several measures related to energy storage. In 2013, the California Public Utility Commission (CPUC) implemented Assembly Bill 2514 by setting a mandate for its investor-owned utilities to procure 1,325 MW of energy storage across transmission, distribution and customer levels by 2020. All the capacity must be operational by 2024. In May 2017, CPUC implemented Assembly Bill 2868 by ordering its investor-owned utilities to procure up to an additional 500 MW of distributed energy storage, including no more than 125 MW of customer-sited energy storage.<sup>14</sup> The Self-Generation Incentive Program has designated US\$48.5 million in rebates for residential storage systems that are 10 kW or smaller and US\$329.5 million for storage systems larger than 10 kW.15

Power generation in California relies on a mix of energy technologies as shown in Table 3.

<sup>&</sup>lt;sup>13</sup> Source: EIA, U.S. Today in Energy, December 2022,

<sup>(</sup>https://www.eia.gov/todavinenergy/detail.php?id=54939).

<sup>14</sup> Source: Ibid.

<sup>15</sup> Source: Ibid.

Energy Source	Generation (GWh)	Percentage (%)
Natural gas	96,457	47.46
Large hydroelectric	14,607	7.19
Solar	40,494	19.92
Wind	13,938	6.86
Nuclear	17,627	8.67
Geothermal	11,110	5.47
Coal	273	0.13
Biomass	5,366	2.64
Small hydroelectric	3,005	1.48
Oil	65	0.03
Other	315	0.15
Total	203,257	100

# Table 1CALIFORNIA POWER GENERATION IN 2022

Source: California Energy Commission, 2022 Total System Electric Generation.

California emitted approximately 37.2 million metric tons of CO<sub>2</sub> from fossil fuel consumption in the electricity sector in 2021. Emissions of carbon dioxide equivalent (CO<sub>2</sub>e) related to electricity generation represented 8.9% of greenhouse gas emissions from the state of California in 2021.<sup>16</sup> To reduce the emissions associated with power generation, the State Legislature has adopted several policies. One of these policies is the California Renewables Portfolio Standard (RPS) program which was instituted by SB 1078 in 2002. In 2018, SB 100 expanded California's commitment to clean energy by increasing its RPS goal to 60% by 2030 and requiring 100% of electricity in California to come from carbon-free resources by 2045.<sup>17</sup> Nevertheless, the curtailment of solar-powered electricity generation has increased in the CAISO region as shown in Figure 4.

 <sup>&</sup>lt;sup>16</sup> Source: California Energy Commission, California Clean Energy Almanac 2021 (<u>2021 EnergyAlmanac ADA (ca.gov)</u>).
 <sup>17</sup> Source: California Public Utilities Commission, 2020 Annual Report.

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Figure 4 MONTHLY CURTAILMENTS BY CAISO (Thousand MWh)

Source: EIA | Today in Energy, October 2023

In 2022, CAISO curtailed 2.4 million MWh of utility-scale solar output, a 63% increase from amount of electricity curtailed in 2021. CAISO is exploring and implementing various solutions to its increasing curtailment of renewables, including promoting the development of flexible resources that can quickly respond to sudden increases and decreases in demand such as battery storage technologies.

To reduce the curtailment of renewable energy generation, additional energy storage systems need to be installed in the CAISO region. California has 4.9 GW of battery storage, and developers plan to add another 7.6 GW by the end of 2024.<sup>18</sup> Storage projects like the proposed Project will assist the CAISO region, not only in reducing renewable energy curtailments, but also in reaching its goal of a carbon-free system by 2045.

## 3.1.3. Project Scope

The Project consists of the design, construction and operation of a 100-MW<sub>AC</sub> BESS, with a step-up substation for interconnection. The preliminary system configuration includes the following components:

 <u>BESS</u>: The Project will include 112 utility-scale units to store energy from the grid. Each unit has a battery DC capacity of 3,916 kilowatt-hours (kWh) and has a manufacturer-integrated liquid cooling energy storage system, fans and radiators for thermal control. Liquid cooling and humidity control ensures higher efficiency and a longer battery cycle.

<sup>&</sup>lt;sup>18</sup> Source: EIA, Today in Energy, <u>(Solar and wind power curtailments are rising in California - U.S. Energy</u> <u>Information Administration</u>).

- <u>Energy Management System</u>: This system will integrate meters, sensors and control devices to optimize and track the BESS performance remotely and in real-time. Operational reports can be generated by this component.
- <u>Power conversion system (PCS)</u>. The 112 utility scale units include an integrated DC/AC inverter module for converting and conditioning power with the functionality to switch between charging and discharge mode.
- <u>Step-up substation</u>. The substation will include a main transformer to convert the voltage level (69V<sub>AC</sub>/34.5kV<sub>AC</sub>) during the BESS charging and discharging cycles. The Step-up substation will be located between the Gen-tie line and the BESS system.
- <u>Gen-tie line</u>. The Project includes the construction of an approximately 650-foot underground gen-tie line at 69kV<sub>AC</sub> to allow the interconnection between the Project Step-up substation and the grid through the existing Pome substation.

Figure 5 shows the general layout of the Project components.

Figure 5 PROJECT LAYOUT



## 3.1.4. Technical Feasibility

The Sponsor evaluated BESS components from different top-tier suppliers in order to select the equipment best suited to the characteristics of the Project site. The technology evaluation process included an analysis of the characteristics, reliability and performance of all system components, as well as a power conversion analysis and a review of product certifications, supplier warranties, etc.

The batteries selected by the Sponsor are based on lithium-ion phosphate (LiFePO<sub>4</sub>) technology, which is considered one of the safest, best understood and most efficient methods of energy storage on the market. It is the technology most commonly used for this application given its high-cycle efficiency and fast-response time. The performance of the battery represents a favorable balance between cost, energy density, degradation and cycle life, making it an optimal choice for stationary grid-tied energy storage solutions. Even more importantly, LiFePO<sub>4</sub> is safer than other commonly used lithium-ion alternatives (i.e., cobalt-based alternatives), ensuring safe and worry-free operations. By the end of 2022 about 9 GW of energy storage had been added to the U.S. grid since 2010. Of the new storage capacity, more than 90% have a duration of 4 hours or less, and in the last few years, lithium-ion batteries have provided about 99% of new capacity.<sup>19</sup> Once the batteries reach the end of their useful life, the Sponsor will recycle them in accordance with applicable regulations.

According to the Project's independent engineer's opinion, the technology selected are commercially proven storage systems. The Project appears to include the relevant certifications for standalone BESS and the proposed method of design and construction appears to have been developed materially in accordance with generally accepted BESS industry practices. Currently, the Project BESS units are in a storage facility in Imperial, California.

## 3.1.5. Land Acquisition and Right-of-Way Requirements

The site consists of approximately 4 acres of private land secured by the Sponsor through an amended and restated leasing agreement signed in September 2023 to construct the BESS (Battery Energy Storage System) facility, step-up substation, and related infrastructure for Project interconnection. The lease agreement includes an initial 20-year term with an option to extend the lease for at least ten more years. The Project site is surrounded by urban development and required demolition works due to existing warehouses and commercial parking areas, which has been completed.

The Project will include the extension and crossing of the gen-tie line from the BESS to the point of interconnection (POI) within the existing Pome Substation. The proposed gen-tie will be located underground along the east side of the Pome Substation, crossing Blaisdell Place road and the driveway of a privately-owned parcel before entering the Project site. The easement infrastructure adjacent to the existing Pome substation is owned by SDG&E. The

<sup>&</sup>lt;sup>19</sup> Source: National Renewable Energy Laboratory, Moving Beyond 4-Hour Li-Ion Batteries report, (<u>Moving Beyond 4-Hour Li-Ion Batteries: Challenges and Opportunities for Long(er)-Duration Energy</u> <u>Storage (nrel.gov)</u>).

Sponsor submitted an encroachment request on July 2023, after its review and meetings with SDG&E the Sponsor obtained the permission in May 2024.

Pome BESS LLC has secured all other necessary public and private encroachments needed for the proposed gen-tie route.

# **3.1.6. Project Milestones**

The NADBank loan will be used for the construction of the Project, which started in August 2024, with commercial operations expected in the first quarter of 2025. Table 2 presents the status of key milestones for Project implementation.

Milestone	Status
Interconnection agreement	Executed (October 2022)
Stormwater Pollution Prevention Plan	Completed (December 2022)
Phase I Environmental site assessment (project site)	Completed (November 2023)
Phase I Environmental site assessment (gen-tie)	Completed (November 2023)
Encroachment Agreement for Gen-Tie line	Completed (June 2024)
Engineering, procurement & construction (EPC) contract	Executed (September 2023)
Grading and Building Permit	Completed (September 2024)
Commercial operation date (COD)	Expected February 2025

Table 2SUMMARY OF PROJECT MILESTONES

The Sponsor has confirmed that the EPC contractor is obligated to obtain the necessary permits for the construction of the Project and will provide written progress reports throughout the implementation phase.

# 3.1.7. Management and Operation

The construction will be conducted under two contractors; one provider will include the engineering, procurement, construction, and commissioning works under an EPC agreement for the BESS and the step-substation, and another contractor will be responsible for the construction of the Project gen-tie line under a Construction Service Agreement (CSA). The Sponsor will secure the preventative maintenance services and support the BESS units' performance guarantee for a 10-year term Under a Long-Term Service Agreement (LTSA). An additional O&M agreement for the components outside the BESS units is currently under negotiation.

## Implementation Phase

The scope of the EPC agreement for BESS was executed in September 2023 and includes design, procurement of equipment and materials, system and facility installation, precommissioning, commissioning, and testing of the BESS facility and step-up substation. As part of the EPC contractor services, its obligated to provide security to the site, to obtain and maintain all sub-contractor's permits required for the construction of the Project, and to provide written progress reports to the Sponsor including the construction progress, quality assurance, and status of deliveries related to the Project. The overall construction duration of the Project is approximately 10 months, according to the construction schedule included with the EPC agreement which assumes final completion in the first quarter of 2025.

An additional CSA was signed in August 2024 for the gen-tie construction between the Sponsor and a different contractor. The scope of work includes providing procurement, construction services, supervision, management, labor, project equipment, all materials, tools, consumables, temporary structures, temporary utilities, storage area, quality control and services required to complete and deliver to Pome BESS the transmission and fiber optic line between the Project's step-up substation and the existing Pome substation.

Based on the Project's independent engineer's opinion, the EPC agreement and the CSA include generally accepted industry provisions in the BESS industry.

The Project will be electrically interconnected with SDG&E Company at the transmission level under the terms of the Large Generator Interconnection Agreement (LGIA). The LGIA specifies that the Project's charging and discharging will be subject to CAISO dispatch rules. The Sponsor is responsible for funding and conducting the design, construction, operation, and maintenance for its share of the interconnection facilities. The Sponsor must also reimburse SDG&E for the design, construction, operation, and maintenance of its interconnection facilities.

# 3.2. Environmental Criteria

# 3.2.1. Environmental and Health Effects/Impacts

## A. Existing Conditions

Historically, the United States has relied to a great extent on fossil fuels for the generation of electricity. According to the EIA, in 2022, the main sources of power generation in California were natural gas (47.5%), followed by solar (20%) and large hydro (7.2%).<sup>20</sup> The conventional sources of energy represent more than 50% of this energy mix and adversely affect the environment due to the harmful emissions produced by their processes, including greenhouse gases (GHG) and other pollutants, such as SO<sub>2</sub> and NOx. Considering the 2022 energy portfolio, California generated nearly 203,338 GWh of electricity, resulting in the emission of approximately 40,323 metric tons of CO<sub>2</sub>, 63,469 metric tons of NOx and 1,130 metric tons of SO<sub>2</sub>.<sup>21</sup> Consequently, there is a need for affordable and environmentally friendly alternatives to conventional fossil-fuel-based power generation.

## B. Project Impacts

Battery storage systems help smooth out the delivery of intermittent resources, such as wind and solar, by storing energy and delivering it when demand increases. They also help prevent

 <sup>&</sup>lt;sup>20</sup> Source: EIA, California Electricity Profiles, (<u>https://www.eia.gov/electricity/state/california/index.php</u>).
 <sup>21</sup> Source: Ibid.

emissions by reducing the need for fossil-fuel power plants to regulate constant changes in energy supply and demand. As the energy supply mix becomes cleaner with low- and nocarbon resources, energy storage will help integrate that supply mix into the grid more easily and reliably.

To achieve California's goals of 100% zero-carbon electricity resources and enhanced resiliency of the grid, the State will need to continue to advance policies and investments in energy storage. The Project will contribute to the storage and supply of clean energy, increase the capacity of the California energy mix to meet supply needs and reduce the demand for electricity generated by fossil fuel-based power plants, thus reducing emissions. The anticipated environmental outcomes from the installation of a 100-MW<sub>AC</sub> battery storage system (or approximately 146,000 MWh per year) include the displacement of an estimated 31,854 metric tons/year of  $CO_2$ , 46 metric tons/year of  $NOx_2$  and 0.81 metric tons/year of  $SO_2$ .

## C. Transboundary Impacts

No negative transboundary impacts are anticipated as a result of the development of the Project; on the contrary, a beneficial effect is anticipated on regional air quality due to the decreased demand on fossil-fuel-fired electrical plants in the region.

# 3.2.2. Compliance with Applicable Environmental Laws and Regulations

## A. Environmental Clearance

The Project proposed will be located in a disturbed area for light-industrial and commercial uses outside of residential areas of the Poway community. The Sponsor submitted a Project application to the City of Poway Development Service Department for plan and document review. As a result of the City's review process, they determined that the permit required for the construction and operation of the BESS systems is exempt from the California Environmental Quality Act (CEQA). The City of Poway published the Notice of Exemption for the Project through the state government's website.

Also, the Sponsor conducted several studies to determine potential impacts to the environment in the Project area, as well as to identify any mitigation measures that might be required. The studies and efforts conducted by the Sponsor for the proposed Project, summarized below and utilize best management practices to identify and avoid potential Project impacts.

## Phase I Environmental Site Assessment for BESS

In June 2024, an independent consultant prepared a Phase I Environmental Site Assessment update for the Pome BESS Project property. The property consists of approximately 4 acres. As part of the scope of work included a search of regulatory agency records to evaluate potential contamination at the property and interviews with the owner of the property regarding the environmental history and background of the property. The Project property was designed as a part of the South Poway Business Park and land use was designated as light industrial/outdoor storage. No recognized environmental conditions of any kind were identified in connection with the Project site or on adjoining properties.

Phase I Environmental Site Assessment for Gen-Tie

In June 2024, an independent consultant prepared a Phase I Environmental Site Assessment update for the Project Gen-Tie property. The property is approximately 0.13 acres, and the land use was designated light industrial. Similarly, part of the assessment's scope of the work included a search of regulatory agency records to evaluate potential contamination of the property and interviews with the owner of the property regarding the environmental history and background of the property. Based on the assessment's conclusion, no recognized environmental conditions of any kind were identified in connection with the Project Gen-Tie site or on adjoining properties.

Noise Analysis

In May 2023, an independent consultant completed a noise and vibration analysis for the Project to identify and estimate onsite construction and post-construction noise emissions in the surrounding sound environment, which consists of existing commercial and industrial land use. The analysis was conducted following the Federal Transit Administration (FTA) methodologies, the California Environmental Quality Act Guidelines, and the City of Poway regulations. The consultant concluded that potential construction and operation-related noise and vibration impacts to the surrounding community would be considered less than the City's standards and the FTA.

The Project complies with applicable environmental laws and regulations. Any necessary mitigation measures are proposed and described in the next section. The Sponsor also developed a set of storm water best management practices for the Project in compliance with the California Regional Water Quality Control Board San Diego Region.

## <u>Permitting</u>

The City of Poway has adopted minimum requirements for managing urban runoff, including storm water, from construction and land development activities. The Sponsor prepared a Stormwater Management Plan (SWPP Plan) and obtained the Poway City approval in September 2023. The SWPP Plan includes the Project construction activities with no existing flood hazards for the construction site. In addition, a grading and building permit was issued by the City of Poway in September 2024.

According to the independent engineer's review, the permits identified are considered standard for energy storage projects located in California, and it does not appear that permitting activities will cause significant impacts to the Project schedule or budget.

## B. Mitigation Measures

Although no environmental clearance is expected to be required for the Project site, the Sponsor will comply with the applicable mitigation measures following the South Poway Development Plan, Poway Municipal Code and the best management practices to implement the Project including the following actions.

- <u>Solid waste</u>. Any waste generated during the construction and operational phases of the Project will be disposed of in accordance with applicable regulations. All waste materials shall be legally disposed of off-site. All the waste material will be collected and delivered for recycling. The non-recyclable waste may be placed in covered dumpsters and removed by an authorized waste-handling contractor for waste disposal.
- <u>Hazardous waste</u>. A limited hazardous material will be used on site, including diesel fuel, gasoline and motor oil vehicles; mineral oil to be sealed within the transformers; and lithium-ion batteries for emergency backup. Appropriate spill containment and cleanup kits will be maintained.
- <u>*Water.*</u> Following construction, the Project proposed will not require sanitary facilities. The use of recycled water will be required for onsite landscape irrigation. The landscaping will require minor water during the life of the project.
- *Noise*. The Sponsor will comply with construction schedules set by local authorities to prevent noise generation outside of allowable days and hours.
- <u>Soil</u>. The Sponsor will implement properly soil erosion control. During construction, the dust particles shall be reduced by periodic sprinkling with water.

At the end of the Project's operational phase, following the expiration of the Project's useful life, the facility will be decommissioned, which will include project components being removed from the Project site. A collection and recycling program will be implemented to promote recycling of project components.

The Sponsor will conduct the above set of best practices and mitigation measures within the Project's implementation.

## C. Pending Environmental Tasks and Authorizations

No environmental authorizations are pending for the Project.

# 3.2.3. Environmental and Social (E&S) Due-diligence Review

## A. Project E&S Risk Category

Based on the NADBank's Environmental, Social and Governance (ESG) policy for evaluating and classifying potential ESG risks in its financial operations, NADBank determined that the proposed Project and its investments fall within the B category, which is assigned when transactions typically involve projects with adverse environmental and social impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures, and follow international best practices. The potential adverse environmental impacts of the Project on human populations or environmentally important areas are considered to be a medium risk.<sup>22</sup>

#### B. E&S Due Diligence Conclusions

NADBank reviewed the Project documentation to determine the Environmental and Social risks associated with the project's implementation and concluded that the Sponsor, Project location, planning, design, and environmental documents, as well as the Project tasks, have acceptable environmental and social practices in place aligned with the regulations applicable to the energy storage industry.

#### C. Summary of Proposed Mitigation Measures

No additional mitigation measures are needed since the Sponsor provided the documentation to support compliance with its E&S obligations.

# 3.3. Financial Criteria

Project construction will be financed with equity from the Sponsor and a loan from NADBank and other lenders. The proposed payment mechanism for the loan is standard for similar energy storage transactions in the United States. The source of payment will be the revenue obtained from the sale of capacity under a long-term energy storage service agreement with an investment grade-rated entity. Project revenue is estimated to be sufficient to: (i) cover scheduled 0&M expenses; (ii) pay the debt service on the senior loan; (iii) fund any debt service and other reserves; and (vi) comply with debt service coverage requirements.

Considering the Project's characteristics and based on the financial and risk analyses performed, the proposed Project is considered to be financially feasible and presents an acceptable level of risk. Therefore, NADBank proposes to provide a market-rate loan for up to US\$60.0 million to the Project Company for construction of the Project.

# 4. PUBLIC ACCESS TO INFORMATION

# 4.1. Public Consultation

On October 7, 2024, NADBank published the draft certification and financing proposal for a 30-day public comment period. The following Project documentation is available upon request:

- Phase I Environmental Site Assessment for the Project site, June 2024.
- Phase I Environmental Site Assessment for the Gen-tie, June 2024.

<sup>&</sup>lt;sup>22</sup> Source: NADBank Environmental, Social and Governance (ESG) Policy, (https://www.nadb.org/uploads/content/files/Policies/NADBank%20ESG%20Policy%20(Eng).pdf)

# 4.2. Outreach Activities

The Sponsor has published its investments, operations, financial goals and business through its official website. The Sponsor has provided information about the Project to different media and shared information about its project's pipeline located in the United States and other countries. This information is limited, but it is available for public consultation.

In addition, the U.S. Office of the Federal Register has published information related to the Sponsor's application requesting the interconnection and transmission services for the Project to SDG&E under the terms and conditions of the California Independent System Operator Corporation (CAISO). The information is unrestricted and available for public consultation.

NADBank also conducted a media search to identify potential public opinion about the Project. The following articles or references to the Project and the Sponsor were found. No public opposition to the Project has been detected.

- Energy Storage News, (July 4, 2023), "California: Sweden's Eolus launches third US battery storage project for 2024 COD" (Eolus makes FID on third US battery storage project, in California (energy-storage.news)).
- Energy Global, (July 3, 2023), "Eolus to invest in the US Pome battery project" (<u>https://www.energyglobal.com/energy-storage/03072023/eolus-to-invest-in-the-us-pome-battery-project/</u>).
- List Solar, (July 3, 2023), "Eolus Invests in US Battery Project: Pome to Come Online in 2024" (<u>https://list.solar/news/eolus-invests/</u>).

The Sponsor has followed all public consultation requirements in order to comply with applicable environmental assessment and permitting processes.