



Los Angeles  
Department of  
Water & Power

RESOLUTION NO. \_\_\_\_\_

**BOARD LETTER APPROVAL**

*Simon Zewdu*

**SIMON ZEWDU**

Senior Assistant General Manager  
Power System

*A. Ben*

Aram Benyamin (Jan 3, 2024 14:39 PST)

**ARAM BENYAMIN**

Chief Operating Officer

*M. L. Adams*

**MARTIN L. ADAMS**

General Manager and Chief Engineer

**DATE:** January 2, 2024

**SUBJECT:** Amendment No. 2 to the Eland Solar and Storage Center, Phase 1 Power Purchase Agreement; Amendment Nos. 1 and 2 to the Eland Solar and Storage Center, Phase 2 Power Purchase Agreement; and Amendment No. 1 to the Eland Solar and Storage Center, Phase 2 Option Agreement

**SUMMARY**

It is requested that the Board of Water and Power Commissioners (Board) adopt the attached Resolution authorizing LADWP's General Manager (GM) or authorized representative to instruct the Southern California Public Power Authority (SCPPA) to proceed with Amendment No. 2 to the Eland Solar and Storage Center, Phase 1 (Eland 1) Power Purchase Agreement (PPA); Amendment Nos. 1 and 2 to the Eland Solar and Storage Center, Phase 2 (Eland 2) PPA; and Amendment No. 1 to the Eland 2 Option Agreement.

City Council approval is not required.

**BACKGROUND**

Eland 1 is a 200 megawatt (MW) solar facility with a 150 MW 4-hour (600 megawatt-hours [MWh]) Battery Energy Storage System (BESS) located near Mojave, CA. LADWP's share of Eland 1 is 87.5 percent, and the City of Glendale's Water and Power department's share is 12.5 percent.

Eland 2 is a 200 MW solar facility with a 150 MW 4-hour (600 MWh) BESS located near Mojave, CA. LADWP's share of Eland 2 is 100 percent.

Eland 1 is currently under construction and is expected to reach commercial operation in quarter three of 2024. Eland 2 is expected to begin construction in 2024 and reach commercial operation in quarter three of 2025. Renewable energy generated by both projects is expected to contribute 7.1 percent towards LADWP's Renewable Portfolio Standard (RPS) goals in 2025. In addition, the combined projects have up to 1,200 MWh of battery energy storage which will contribute to achieving Senate Bill 801 (Aliso Canyon natural gas storage facility: electrical grid data: electricity demand reduction and response: energy storage solutions) requirements and energy storage goals Assembly Bill 2514 (Energy storage systems). The amount of carbon-free energy generated by Eland 1 and Eland 2 is estimated to serve up to 283,945 homes and annually avoid up to 592,722 metric tons of greenhouse gas emissions from a conventional fossil fuel power plant, which is equivalent to not driving over 127,514 cars for a year.

In 2019, the Board, by way of Resolution Number 020 043, and the City Council, by way of Ordinance Number No. 186439, approved the Eland 1 Power Sales Agreement (PSA) No. BP 19-015, Eland 1 Agency Agreement (AA) No. BP 19-016, the Eland 2 PSA No. BP 19-017, and Eland 2 AA No. BP 10-018. Attached to the Eland 1 PSA is the Eland 1 PPA and Option Agreement entered between SCPPA and 8Minute Solar Energy (8ME). Attached to the Eland 2 PSA is the Eland 2 PPA and Option Agreement entered between the SCPPA and 8ME.

Since 2019, 8ME changed its name to Avantus and brought in a development partner, Arevon Energy (Arevon), to the Eland 1 and Eland 2 projects. In July 2023, LADWP was notified that Avantus is no longer a partner in Eland 1 and Eland 2 and that Arevon is the sole owner of the two projects. Arevon will be constructing, owning, operating, and maintaining the Eland 1 and Eland 2 projects for the 25-year term of the PPAs.

In Resolution No. 020 043, the Board authorized the GM or his designee to review and act on all material matters related to the project agreements to be decided by LADWP (excluding purchase options). In response to the Board's interest in SCPPA projects, these amendments are being presented for the Board's consideration, notwithstanding the previous delegation to the GM.

### **Amendments**

The amendments that are brought before the Board for consideration and approval are as follows:

- Amendment No. 1 to the Eland 2 PPA requires amendments to the Full Contract Price and Outside Commercial Operation Date (OCOD), Section 3.3(e). The Full Contract Price will be amended from \$39.62 to \$50.20 per MWh due to an increase in procurement and construction costs, battery costs, fuel and delivery

costs, solar module costs, steel costs for the racking system, and borrowing costs. This energy cost increase was determined to be reasonable considering the aforementioned factors and when compared to current market energy prices with other solar and BESS projects. The new energy price is fixed. The original term of the Eland 2 PPA of 25 years is unchanged.

The OCOD, as specified in Section 3.3(e), should be revised to August 1, 2026. This adjustment is necessary to address the delays to key milestones in the Large Generator Interconnection Agreement (LGIA) and any unforeseen future delays. To accommodate any unexpected delays under the LGIA, the OCOD will be extended day-for-day in accordance with the LGIA. Consequently, amendments to Appendix B of the PPA are required to update the Milestone Dates. The Milestone Dates in Appendix B have been accordingly updated. The Guaranteed Commercial Operation Date is a Key Milestone under the PPA. If a key milestone is missed by the developer, not due to Force Majeure, then the developer will have to pay Liquidated Damages. The OCOD is there to protect LADWP from delays by the developer. If the developer fails to meet the OCOD then it will be an immediate default and not subject to extension or cure.

- Amendment No. 2 to the Eland 1 PPA requires a change in the battery storage specifications. An amendment is necessary to change the Frequency Rate of Change Response Mode to a Frequency-Watt Curve in order to align with LADWP's balancing authority needs and to add additional flexibility to the frequency bands. In addition, during the facility design phase discussions by the parties, it became apparent that as the battery Round-Trip Efficiency (RTE) decreased the calculations for the RTE Underperformance Deduct decreased, which was not the intent of the parties. The RTE Underperformance Deduct should increase as the battery RTE decreases. These changes to the RTE Performance Test calculations are needed in the contract to be consistent with what was originally contemplated during the initial negotiations between LADWP and the solar developer. This also required corresponding changes to the definition of "Actual Round-Trip Efficiency" in Appendix U of the Eland 1 PPA. There are no changes to the energy price or term of the Eland 1 PPA.
- Amendment No. 2 to the Eland 2 PPA also requires the same changes to the battery storage specifications being made to Amendment No. 2 to the Eland 1 PPA.
- Amendment No. 1 to the Eland PPA Option Agreement changes the Tax Equity Component Limitations table in Exhibit 2.5 of the Option Agreement. The Tax Equity Limitation Component is part of the definition of "Facility Debt." Facility Debt establishes the minimum amount that must be paid by the buyer in the event the option to purchase the project is exercised following a seller event of default. Essentially, it ensures that debt and some tax equity will be paid off in that instance. The concept was required to make the purchase option financeable by tax-equity investors. Option Agreement provides for the party to

recalculate the table prior to funding by tax equity investors. LADWP and SCPPA negotiated the revision to the table, which reduces the Tax Equity Limitation Component in early years and increases in later years.

## **ALTERNATIVES CONSIDERED**

The increased prices for construction and materials have affected the entire solar development industry. Eland 2 remains more cost-effective than other proposed projects. Eland 2 possesses several advantages:

- The second most cost-effective renewable with BESS project currently under contract.
- Features a 75 percent BESS system, outperforming comparable projects with a 50 percent BESS at a higher price.
- Benefits from excellent solar irradiance in its location.
- Shares the existing Gen-Tie infrastructure constructed for Eland 1.
- Leverages LADWP's existing transmission capacity at the Barren Ridge Switching Station.
- Enhances the reliability of the Barren Ridge transmission system through the addition of a BESS.
- Located in a region where LADWP already has existing operational and maintenance facilities and crews.
- Offers ownership opportunities after the expiration of tax benefits.
- The project will substantially contribute to LADWP's RPS goals.

Failing to secure low-cost renewable energy from Eland 1 and Eland 2 may lead to LADWP falling short of its RPS compliance targets of Senate Bill 100 (100 Percent Clean Energy Act of 2018) and will increase the financial burden on our ratepayers due to procurement of replacement energy.

LADWP's other alternative would be to start negotiations with another developer for renewable energy, which may not meet the criteria mentioned above on a timely basis. The performance security that LADWP/SCPPA would recover from a default by the seller would not offset the increased costs for energy in the current market.

## **FINANCIAL INFORMATION**

Amendment No. 2 to the Eland 2 PPA will result in an energy price increase from \$39.62 per MWh to \$50.20 per MWh, an increase of \$10.58 per MWh. The original 25-year term remains unchanged, and the new price is fixed for the entire PPA duration. The average annual energy LADWP will receive from Eland 2 is approximately 802,631 MWh. The estimated average cost of this energy for LADWP is approximately \$40.29 million annually, an increase of \$8.5 million from the original energy price. Over the 25-year term, the estimated energy cost is \$1,007 million, an increase of \$212.3 million.

The renewable energy and environmental attributes purchased from Eland 1 and Eland 2 are aligned with LADWP's RPS Policy and will directly benefit Los Angeles ratepayers by supplying them with sustainable renewable energy, thereby reducing emissions and decreasing the reliance on and costs associated with fossil fuels.

Funding for this renewable project will be budgeted through the Power Revenue Fund's Fuel and Purchased Power budget. The anticipated rate impact for Eland 2 on the ratepayers is an expected increase of 0.128 cents per kilowatt-hour throughout the 25-year term.

### **ENVIRONMENTAL DETERMINATION**

Determine item is exempt pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15061(b)(3). It has been determined that entering into and amending existing power sale agreements with SCPA to purchase power generated from solar and/or battery energy solar systems is exempt pursuant to the General Exemption described in CEQA Guidelines Section 15061(b)(3). General Exemptions apply in situations where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment.

### **CITY ATTORNEY**

The Office of the City Attorney reviewed and approved the Resolution as to form and legality.

### **ATTACHMENTS**

- Resolution
- Amendment No. 2 to the Eland 1 PPA
- Amendment No. 1 to the Eland 2 PPA
- Amendment No. 2 to the Eland 2 PPA
- Amendment No. 1 to the Eland 2 Option Agreement