



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

**BOARD LETTER APPROVAL**

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**DATE:** October 17, 2024

**SUBJECT:** United States Department of Energy - Grid Resilience and Innovative Partnerships Grant

**SUMMARY**

The United States Department of Energy (DOE) has selected LADWP's application for negotiation under the Funding Opportunity Announcement Number DE-FOA-0002740, Bipartisan Infrastructure Law – Grid Resilience and Innovation Partnerships (GRIP), Topic Area 2. The Power System is requesting approval of the attached Resolution which delegates authority to the Chief Executive Officer to allocate funds from the \$48 million in federal funding to LADWP for the programs identified under the Community Grid Innovation Program (CGIP).

The DOE will award LADWP \$48 million, as part of the GRIP program under the Bipartisan Infrastructure Law. This award, and LADWP's cost sharing investment, will be pivotal for enhancing grid flexibility, improving our power system's resilience against the escalating threats of extreme weather, and ensuring equitable access to clean and affordable electricity across underserved communities in Los Angeles.

LADWP recently concluded the multiyear LA100 Equity strategy and as part of the recommendations, various Distributed Energy Resource (DER) programs were enumerated as opportunities to support underserved communities in adopting clean energy technologies. The DOE's support is not only well timed but is able to address these recommendations with precision and measurable outcomes.

City Council approval is not required.

## **RECOMMENDATION**

It is recommended that the Board of Water and Power Commissioners adopt the attached Resolution allocating funds to the programs identified under the DOE GRIP Grant and authorizing the Chief Executive Officer to update the various program Guidelines and documents to reflect the additional allocation and terms of participation resulting from the award.

## **ALTERNATIVES CONSIDERED**

The alternative is to reject the \$48 million award. By rejecting, we will need to curtail our participation and capacity targets due to financial constraints and risk falling short of our local solar, energy storage, demand response, and electric vehicle (EV) targets which are essential to combating the impacts of climate change. Also, this would inhibit LADWPs efforts to address equity as low-income and disadvantaged communities will continue to see disproportionately less benefit from solar and other DER technologies. Accepting the grant is a better alternative.

## **FINANCIAL INFORMATION**

The programs identified by the Community Grid Innovation Program (CGIP) will be supported by a \$96 million investment as a result of the DOE grant, with \$48 million provided by the DOE and the remaining \$48 million matched by the LADWP. The various LADWP programs funded by this investment will include a component to promote participation in Disadvantaged Communities (DACs). DOE funding will only be used to fund incentives towards DACs and overhead costs that will be shared amongst all program participants.

The Solar Rooftops Program (SRP), initially budgeted at \$12.9 million over 20 years is projected to significantly expand its budget. With GRIP funding, LADWP plans to increase the SRP budget to \$19.3 plus allocate \$19.3 from the DOE grant, for a total of up to \$38.6 million for the installation of approximately 2.84 megawatt (MW ) of solar photovoltaic (PV) (~ 568 homes) and 3.2 megawatt hour (MWh) of energy storage systems (~ 320 homes) for DAC customers.

The estimated budget for the Demand Response program will be \$168 million. Of this total, \$10 million will come from the GRIP grant. The budget includes up to \$900,000 to distribute smart thermostats to DAC customers; \$2.3 million from the grant to fund integration of building energy management systems (BEMSs) with Demand Response Management Systems (DRMS) and Distributed Energy Resource Management System (DERMS), connecting the smart thermostats for dispatch; and \$6.2 million to reimburse educational institutions for installing BEMS at their facilities. The remaining funds in an amount of \$600,000 will be allocated towards personnel costs.

LADWP will expand the current Residential and Commercial Managed Charging Programs with a 50 percent cost share between DOE funds of \$5 million and LADWP funds of \$5 million, increasing the total approximate budget from \$11 million to \$21 million. These DOE funds will enable LADWP to offer a greater financial incentive to optimize off-peak charging particularly in DACs. The current off-peak charging goals for Residential is 10MW and for Commercial is 5MW. With the expansion of the current Managed Charging Programs the off-peak charging goals will adjust to 17MW for Residential and for Commercial to 8MW.

LADWP budgeted funding of the previously authorized 75MW of capacity for the Feed-In Tariff programs is not to exceed \$22,275,000 in annual energy payments. The Feed-In Tariff + Pilot (FiT+) will be augmented by up to \$8 million from the GRIP funds to support this initiative. Funds for the FiT+ program will be used to reimburse interconnection costs and provide an energy storage subsidy, with no additional ratepayer funds required. The added 25 MW capacity for the FiT+ pilot is part of the previously authorized 450 MW by the City Council and the Board, thus incurring no extra financial impact. Historically, and moving forward, reimbursements for FiT+ projects are budgeted through the Fuel and Power Purchase budget.

The existing Commercial Energy Storage to Grid Pilot (CES2G) Program is funded by the Power Revenue Fund. The existing CES2G Pilot Program budget will not exceed \$32 million. Up to an additional \$5.7 million from GRIP will be allocated to further offset interconnection costs for projects located within DACs. This would increase the budget to \$37.7 million.

LADWP's \$48 million dollar match of the federal funds will be derived from LADWP program budgets to support the underlying program costs associated with enhanced participation from customers receiving additional benefits as a result of the DOE grant.

## **BACKGROUND**

**Program Overview and Objectives:** CGIP is a forward-looking initiative developed by LADWP, supported by the Department of Energy's Grid Resilience and Innovation Partnerships (GRIP) Program. The LADWP was awarded \$48 million dollars in Federal Funding. The CGIP program shall enhance grid flexibility, reliability, and resilience by integrating advanced distributed energy resources (DERs) through a Distributed Energy Resource Management System (DERMS). CGIP aims to add up to 100 MW of distributed capacity, with a strong focus on benefiting Disadvantaged Communities (DACs) by ensuring they have equitable access to renewable energy solutions. This initiative will expand existing programs such as the Feed-in Tariff (FiT), Solar Rooftop Program (SRP) and introduce new Demand Response and Managed Charging programs. By leveraging these components, CGIP not only supports LADWP's ambitious clean energy goals but also aims to strengthen our power system against the challenges posed by extreme weather and climate change, while ensuring equitable access to affordable, clean electricity across Los Angeles.

## Program Enhancements

**FiT+:** LADWP aims to increase the FiT+ program capacity by 25 MW over five years. The FiT+ program focuses on enhancing the use of locally generated solar energy and ensuring that this renewable energy can be stored and dispatched in a manner that optimizes its deliverability to nearby load centers during peak demand hours. The existing program shall be improved by allowing projects in DACs to be eligible for an additional reimbursable interconnection cost and a battery subsidy.

**SRP:** The existing SRP program allows LADWP to install solar panel systems on participants' homes and receive all the energy produced from the system. In exchange, participants receive fixed roof lease payments ranging from \$240 and \$600 per year for up to 20 years.

LADWP plans to incorporate energy storage systems and EV chargers into the SRP. This will be achieved by providing an additional lease payment for hosting a battery energy storage system on a customer's home. Additionally, customers will have the option for an EV charger to be installed at their home. These systems will provide grid services to LADWP and encourage the adoption of EVs and managed charging.

The anticipated increase in participation driven by the DOE Grant will require collaboration with a third-party installer, which will be facilitated through a future Request for Proposal (RFP) solicitation currently under development. The original SRP target of 1 MW capacity of photovoltaic capacity (PV) (equivalent to 300-450 homes) will expand to 40 MW of PV and 20 MWh of energy storage (equivalent to 8,300 to 8,450 homes) and the inclusion of 8,000 EV chargers over 10 years through the RFP. The SRP installation vendor will be selected through the RFP and the resulting contract will be brought to the Board for approval in early 2025.

**Demand Response (DR):** LADWP currently offers two Demand Response (DR) programs: one for C&I customers and another for residential customers. The C&I program has enrolled 76 customers, providing 37.5 MW of capacity, while the Power Savers Program for residential customers has 43,778 participants with 52,251 thermostats, totaling 37 MW of capacity. Beginning in 2025, LADWP plans to integrate directly with participating C&I customers BEMS for more reliable dispatch during DR events.

LADWP has issued an RFP for DR Technology, Integration, and Services that aims to enhance existing DR programs, targeting 218 MW for the Commercial and Industrial (C&I) DR program and 100 MW for Residential customers. Additionally, the RFP will support the launch of two managed EV charging programs and an Internet of Things (IoT) DR program. It will also introduce a Demand Response Management System (DRMS) to automate DR processes. These contracts, separate from this grant, will be brought to the Board for approval in Quarter 4 2024.

Using funds from the GRIP grant, LADWP will collaborate with 116 Los Angeles Unified School District (LAUSD) schools, 6 Los Angeles Community College District (LACCD) campuses, and California State University of Los Angeles (CSULA) to reimburse up to \$100,000 per facility for the installation of a BEMS. These BEMSs will allow the educational institutions to automatically participate in managing energy demand during peak periods in collaboration with LADWP grid operations. Additionally, LADWP will distribute up to 12,000 smart thermostats to DAC customers for residential demand response. These program enhancements will expand demand response programs by up to 16 MW.

**CES2G:** Under this pilot program, LADWP has the capability to dispatch stationary and non-stationary customer-owned energy storage systems to mitigate grid overloads and congestion. This program will add up to 25 MW of capacity to the grid. Currently, qualifying customers are eligible to receive up to 75 percent of the Interconnection Costs as a one-time lump sum payment, not to exceed \$150,000 on the 4.8-kilovolt (kV) system and \$400,000 on the 34.5-kV system. GRIP funds will be allocated to double the reimbursement for interconnection costs for projects in DAC communities.

**Managed Charging:** LADWP is launching a Managed Charging Program for residential and commercial customers with the objective to shift daily energy consumption from peak hours to off-peak hours by leveraging EV telematics and/or EV Station Equipment signals. The current off-peak charging goals are 10 MW for residential customers and 5 MW for commercial customers. By leveraging DOE funds, LADWP plans to expand the Managed Charging Programs, adjusting the off-peak charging goals to 17 MW for Residential customers and 8 MW for commercial customers. LADWP will offer increased financial incentives to optimize off-peak charging for DACs, which would not be possible without DOE funds. State law prohibits providing additional ratepayer-funded incentives exclusively to DACs without offering the same to all LADWP customers.

### **Program Goals and Expected Outcomes:**

The enhancements to LADWP's programs under the CGIP are designed to achieve key objectives that align with broader goals of grid modernization, resilience, and equitable access to renewable energy. These enhancements, made possible through DOE funding, will deliver significant benefits to both the grid and the communities it serves.

### **Integration with DERMS:**

The integration of LADWP's systems and DERs with DERMS will enable dynamic management of electrical loads, allowing for real-time adjustments and optimal deployment of customer programs. DERMS integration will contribute to the overall addition of up to 100 MW of distributed, dispatchable capacity, enhancing grid operations and improving customer engagement.

### **Grid Reliability, Flexibility and Resiliency:**

Enhancing grid reliability and flexibility involves incorporating energy storage, solar PV, EV charging infrastructure, and demand response technologies. The SRP and Managed Charging Program are critical to achieving this. The SRP will expand to include energy storage and offer EV chargers, significantly increasing capacity, while the Managed Charging Program will shift daily energy consumption to off-peak hours, particularly benefiting DACs. These enhancements will allow LADWP to better manage peak loads and ensure consistent power delivery, even during periods of high demand or unexpected disruptions. Enhancements to the DR program, which involve collaborating with educational institutions and distributing smart thermostats to DAC customers, will play a crucial role in ensuring a resilient energy system capable of adapting to changing conditions.

### **Enhanced DER Integration:**

Achieving up to 100 MW of integrated DER capacity will bolster grid management, promote resilience, and reduce restoration times during outages. The CES2G program will add up to 25 MW of capacity by dispatching customer-owned energy storage systems, with a particular focus on projects in DACs. As integrated DER capacity increases in DACs, LADWP will be better positioned to restore service to those communities.

### **Community and Environmental Benefits:**

A key focus of the CGIP is to ensure that the benefits of these programs are equitably distributed. By utilizing DOE funding, LADWP will extend additional financial incentives to program participants. The enhancements to the FiT+ and CES2G programs, including additional reimbursable interconnection costs and battery subsidies for projects in DACs, are central to advancing environmental justice and inclusivity, ensuring all communities have access to the benefits of clean energy technologies.

### **Stimulation of Private Sector Innovation:**

The CGIP program will attract new technologies and services by enhancing control and visibility of DERs, driven by the LA100 equity strategy study. This will encourage private sector participation in the transition to a clean energy future, fostering innovation and economic growth. The comprehensive program enhancements across FiT+, SRP, DR, CES2G, and Managed Charging are expected to create a robust ecosystem that supports private sector engagement and technological advancements.

## **ENVIRONMENTAL DETERMINATION**

It has been determined that the item is exempt pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15060(c)(2). In accordance with this section, an activity is not subject to CEQA if it will not result in a direct or reasonably foreseeable indirect physical change in the environment. The delegation of authority to allocate

funds to incentivize projects under CGIP will not result in any physical change in the environment. Therefore, this action is not subject to CEQA.

### **CITY ATTORNEY**

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

### **ATTACHMENTS**

- Resolution