City of Arts & Innovation

City Council Memorandum

TO: **HONORABLE MAYOR AND CITY COUNCIL** **DATE: MARCH 14, 2023**

FROM: **PUBLIC UTILITIES DEPARTMENT** **WARDS: ALL**

SUBJECT: GRID RESILIENCE AND INNOVATION PARTNERSHIP (GRIP) GRANT APPLICATION TO THE U.S. DEPARTMENT OF ENERGY FOR AN AMOUNT UP TO $11.5 MILLION TO FUND ADVANCED METER PROGRAM-FULL DEPLOYMENT – SUPPLEMENTAL APPROPRIATION

ISSUE:

Authorize the submittal of a Grid Resilience and Innovation Partnership (GRIP) grant application to the U.S. Department of Energy in an amount up to $11.5 Million to fund continuance of the Advanced Metering Infrastructure Full Deployment to all Public Utilities electric customers.

RECOMMENDATIONS:

That the City Council:

1. Authorize the Public Utilities Department to submit a Grid Resilience and Innovation Partnership (GRIP) grant application to the U.S. Department of Energy in an amount up to $11.5 million for Citywide Advanced Metering Infrastructure Full Deployment;

2. With five affirmative votes, and upon grant award, authorize the CFO or designee, to record an increase in revenues and appropriate expenditures in the estimated grant award amount of up to $11.5 million, or the actual award amount, in the Electric Fund, GRIP Grant Project accounts; and

3. Authorize the City Manager, or designee, to sign any-and-all necessary documents related to applications for grant funding as discussed in this report, making minor corrections as necessary.

BOARD OF PUBLIC UTILITIES RECOMMENDATION:

On February 27, 2023, the Board of Public Utilities unanimously voted to recommend that the City Council Authorize the Public Utilities Department to submit a Grid Resilience and Innovation Partnership (GRIP) grant application to the U.S. Department of Energy in an amount up to $11.5 million for citywide Advanced Metering Infrastructure Full Deployment; and authorize the City Manager, or designee, to sign any-and-all necessary documents related to applications for grant funding as discussed in this report.

BACKGROUND:

Advanced Metering Infrastructure (AMI) is an integrated system of advanced electric meters, communications networks, and data management systems that enables automation and two-way communication between the utility and the meter provided to the customer. The system provides several important functions that were not previously possible or had to be performed manually, such as the ability to automatically and remotely measure electricity use, connect and disconnect service, detect tampering, identify and isolate outages, and monitor voltage.

AMI provides Riverside Public Utilities (RPU) near real-time and actionable information about system performance, power quality, and outages, which increases reliability and efficiencies, and lowers overall operating costs. AMI also supports more advanced data analytics of loads for better planning and future integration of renewables. It creates opportunities for new rate design, demand response program design and other options that will better support customers managing their electricity uses to see on-bill reductions, energy efficiency programming, electric vehicle charging, customer sited generation, and other new technologies that are and will be deployed as the electric grid and economy seek to achieve equitable and viable solutions to achieve carbon-neutrality.

On January 28, 2019, after several years of extensive industry research and gathering best practices from other successful electric AMI implementations, staff presented and obtained approval from the Board of Public Utilities to proceed with an Advanced Meter Program (Program). RPU's Program approach maximized the previous investment in residential Encoder Receiver Transmitter (ERT) meters, while introducing new AMI functionality across the entire service territory. The Program included the replacement of approximately 20% of the legacy meters, which includes all commercial and industrial (C&I) meters, many of which are obsolete mechanical meters that are beyond the expected service life.

By converting this initial subset of legacy meters to AMI, and utilizing the fixed AMI network, RPU can remotely read the remaining ERT meters. This allows for several benefits including immediate efficiencies in meter reading and maximizing the return-on-investment of the legacy meters. It also allows the technological improvements and interfaces to be put in place and refined prior to full implementation. This phased approach allows for an efficient transition from ERT to AMI technologies over several years and budget cycles. To date, RPU has exchanged 16% of the legacy meters and has, therefore, almost completed the initial Program implementation.

DISCUSSION:

The Grid Resilience and Innovation Partnership (GRIP) program seeks to accelerate the deployment of transformative projects across the nation to help ensure the reliability of the power sector's infrastructure, ensuring all communities have access to affordable, reliable, clean electricity. On December 16, 2022, the Department of Energy (DOE) accepted Concept Papers for qualifying Smart Grid projects for the GRIP program. Concept Papers provided an overview of proposed projects prior to submittal of a Full Application. RPU submitted a Concept Paper requesting match funding to accelerate the conversion of the remaining 80% of RPU's electric meters to AMI. On February 2, 2023, a response letter was received from the DOE encouraging RPU to submit a full application.

Full Applications are due March 17, 2023, and RPU will seek up to $11.5 million for the project. GRIP funding may be awarded to eligible entities up to $3 billion for grid resiliency technologies and solutions. Recipients of the Smart Grid grants may receive a maximum award of $50 million and must provide a cost share of at least 50% of the total project cost. RPU has an approved CIP budget for AMI meters over the next 7 years, in the amount of $11,537,801. These AMI Meters funds will be used to meet the required 50% cost match for this grant with an estimates project cost of $23 million.

Eligible Smart Grid priority investment areas include:

1. **Improving the visibility of the electrical system to grid operators**
    a. Help quickly rebalance the electrical system with autonomous controls through data analytics, software, and sensors.

2. **Enhancing interoperability and data architecture of systems**
    a. Support two-way flow of both electric power and localized analytics to provide information between electricity system operators and consumers.

3. **Anticipate and mitigate the impacts of extreme weather or natural disaster on grid resiliency**
    a. Investments to increase the ability to redirect or shut off power to minimize blackouts, prevent wildfires, and avoid further damage.

STRATEGIC PLAN ALIGNMENT:

This item contributes to **Strategic Priority 2 – Community Well-Being**, **Strategic Priority 4 – Environmental Stewardship**, **Strategic Priority 5 – High Performing Government**, and **Strategic Priority – 6 Infrastructure, Mobility and Connectivity**, and the following goals:

Goal 2.6 – Strengthen community preparedness for emergencies and disruptive events to ensure effective response and recovery.

Goal 4.6 – Implement the requisite measures to achieve citywide carbon neutrality no later than 2040.

Goal 5.2 – Utilize technology, data, and process improvement strategies to increase efficiencies, guide decisions making, and improve access to and delivery of financially sustainable city services.

Goal 6.2 – Maintain, protect, and improve City assets and infrastructure to ensure reliability, enhance sustainability, and facilitate connectivity.

Goal 6.3 – Identify and pursue new and unique funding opportunities to develop, operate, maintain, and renew infrastructure and programs that meet the community's needs.

Goal 6.5 – Incorporate smart city strategies into the planning and development of local infrastructure projects.

This item aligns with each of the five Cross-Cutting Threads as follows:

1. **Community Trust** – Replacement of aging meter technology that will ensure timely maintenance and reliability of the City's electric system and result in greater public good.

2. **Equity** – RPU endeavors to provide safe and reliable electric service to all its customers. Accelerating the full deployment of the Advanced Meter Program provides an equitable benefit to all customers.

3. **Fiscal Responsibility** – Seeking grant funding opportunities to accelerate the implementation of the Advanced Meter Program demonstrates that Riverside is a prudent steward of public funds and ensures responsible management of the City's financial resources.

4. **Innovation** – The Advanced Meter Program has added new technologies that provide data that wasn't previously available. The new data offers many opportunities to improve operations, customer experience, and reliability.

5. **Sustainability & Resiliency** – The data available from the Program provides information that can assist in asset management and daily operational decisions that improve reliability and support increased opportunity for RPU to implement rates and other supporting programs to better integrate electric vehicle charging, solar and other self-generation programs, and customer demand response programs that will support the transition to carbon neutrality.

FISCAL IMPACT:

The total fiscal impact of this action is up to $11.5 million. Upon Council approval and if awarded, revenue in the amount of $11.5 million, or the actual grant award amount, will be recorded and expenditure appropriated in the same amount, in the Electric Fund, GRIP Project revenue account 6900200-331300 and expenditure account 6900200-470823. RPU has an approved CIP budget for AMI meters over the next 7 years of $11,537,801. These funds will be used to meet the required 50% cost match for this grant.

Prepared by:	Daniel E. Honeyfield, Assistant General Manager/Energy Delivery
Certifies availability of funds:	Edward Enriquez, Interim Assistant City Manager/Chief Financial Officer/City Treasurer
Approved by:	Kris Martinez, Assistant City Manager
Approved as to form:	Phaedra A. Norton, City Attorney

Attachments:

1. Concept Paper Submittal for DOE GRIP Grant
2. DOE Response to Concept Paper
3. Presentation