



# City Council Report

**Date:** January 27, 2025  
**To:** City Council  
**Through:** Marc Heirshberg, Deputy City Manager  
**From:** Scott Bouchie, Energy Resources and Sustainability Director  
Anthony Cadorn, Energy Resources Program Manager  
**Subject:** Integrated Resource Plan for the Fulfillment of the Requirements of the Western Area Power Administration's Hydro-Electric Generation Contracts (Council District #1, 3 & 4)

## Purpose and Recommendation

The City Council is requested to approve the submittal of the Integrated Resource Plan (IRP) proposed by the Energy Resources Department which covers the electric power and energy resource demands of the City of Mesa's (Mesa) local distribution utility system through the year 2030.

## Background / Discussion

Mesa operates an electric service area (ESA) of approximately 5.5 square miles encompassing the heart of the city, including the original town-site. As of December 2024, electric service is provided to 18,118 customers of whom 15,360 are residential and 2,758 are commercial, interdepartmental or another public authority. The City itself is the largest customer within the ESA (based on the combined use of all Mesa facilities in the ESA). Summer peak demand in July 2024 for the electric utility reached 86.3 MW.

The successful submittal of this IRP will permit Mesa to comply with an important requirement of the long-term hydroelectric power supply agreements with the Western Area Power Administration (Western). In accordance with the Energy Policy Act of 1992, these contracts with Western, which provide Mesa with its current lowest cost power supply (which is also renewable), require the filing of either a new resource plan or an updated resource plan approximately every five years as well as annual reports. In the absence of submitting an IRP, Mesa may face the loss of these important, low-cost hydroelectric power resources. As such, Mesa has been filing Integrated Resource Plans since 1996 with its most recent plans filed with City Council approval in 2007, 2012, and 2019. Upon approval by the City Council, Mesa would submit the IRP to Western as its updated Integrated Electric Resource Plan.

An IRP is a document that summarizes a planning process which assesses and

compares alternatives to provide energy resource needs for the electric utility customers through the year 2030. The IRP will facilitate Mesa's continued provision of safe, reliable, economic and sustainable electric resources to its customers by establishing a systematic approach for evaluating and planning the acquisition of electric power and energy resources to meet both current and future customer loads. The IRP also considers demand side management programs which are utility programs to encourage customers to conserve energy rather than having the utility seek additional energy resources. Given that Mesa's supply contracts are staged to expire in a cascading manner throughout the IRP's timeframe, this IRP will help identify the resource or combination of resources that will best replace those contracts while considering diversity, reliability, dispatchability, sustainability and other risk factors.

To seek customer input Mesa ran an online survey to solicit input from customers. By providing a small incentive to customers, and aggressively marketing the survey, the survey response approximately tripled the response of Mesa's last IRP in 2019 with 167 fully validated responses. This survey provided critical feedback as to the priorities of Mesa's electric customers, provided insight into how customers have made energy efficiency improvements at their homes and businesses, provided insight into whether they are considering the purchase of electric vehicles and more. Input from customers indicated that although they have a strong desire for renewable resources, they are more sensitive to rate increases that could result from the integration of such resources and they also have a high concern for the reliability of the delivery of electricity.

The IRP includes an action plan that will guide Mesa's resource acquisition decisions through 2030. The focus of this action plan has been a set of guiding principles rather than a specific prescription of which resources to purchase. During this last IRP period (between 2019 and today), markets evolved rapidly and the energy industry underwent fundamental changes. Because of these changes, a heavily prescriptive plan could become outdated very quickly and would not achieve the goal of having a flexible, dynamic plan. Mesa's ability to respond quickly to challenges has been critical to adapt to these changes during the past five years. The overarching strategies that Mesa will focus on during this next IRP period include:

- Increase the competition for Mesa's electric supply
- Minimize exposure to volatile market pricing
- Reduce the risk for loss of power at the Rogers Substation<sup>1</sup>
- Leverage Mesa's natural gas utility
- Leverage Mesa's available land resources
- Seek economical utility scale renewable energy
- Seek economical utility scale conventional resources
- Leverage Mesa's new advanced metering infrastructure (AMI)
- Leverage customers' preferences for sustainable resource choices
- Leverage Mesa's transition to Electric Vehicles
- Leverage Mesa's District Cooling utility

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<sup>1</sup> The Rogers Substation is the point of interconnection to the bulk electric grid for Mesa's electric distribution utility.

- Leverage Mesa's status as a tax-exempt entity
- Leverage Mesa's status as a federal hydroelectric power generation preference customer

Although subject to change as market conditions change, key resource acquisitions/decisions during the IRP period as a result of this action plan are expected to include:

- Action to secure a reliable secondary feed strategy for the distribution system
- Continued work towards a conclusion of the Public Safety Campus Microgrid project and evaluations of other microgrid projects
- Execution of enabling agreements with additional suppliers to further increase competition for Mesa's business and cost savings for Mesa's customers
- Continued optimization of Mesa's transmission rights to access the most competitive marketplaces to purchase energy and save money for Mesa's customers
- Completion of the Downtown Solar 2 projects and Mesa Arts Center Solar Project<sup>2</sup>
- Evaluation of the Rogers Substation vacant land site, vacant 4 kV substation sites, and other Mesa parking lots for local generation and storage projects
- Continued pursuit of the AEPCO Pinal Solar Project
- Consultant study of wide-ranging residential and commercial time-of-use rates to reduce peak demand, reduce costs and help with grid stability
- Continuation of Mesa's customer-owned solar program, Smart Peaks virtual power plant program, Renewable Energy Service Rider program and Electric Vehicle Time of Use rate
- Renewal and continued use of Mesa's federal hydropower resources
- Continued joint action with other similarly situated public utilities for the development of economic, reliable utility scale resources (both conventional and renewable)

Ultimately, all resource acquisitions will require City Council approval. With the aggressive approach towards maximizing competition for Mesa's business; the leveraging of the many assets that Mesa already possesses (available land, tax exempt financing, the natural gas utility and many more); and soliciting competitive offers for conventional and renewable resources, Mesa expects that this action plan will continue to reduce electric portfolio costs compared to the past four years and will also increase the amount of renewable resources that Mesa provides to its customers.

## **Alternatives**

As previously discussed, Mesa is required to develop and file an IRP as part of its contractual obligations under its low-cost hydro-electric power supply agreements with Western, or risk losing its allocation of this valuable power resource. Thus, unless

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<sup>2</sup> The Mesa Arts Center solar project is still pending council approval and execution of a power purchase agreement.

Mesa opts to forego its lowest cost sources of supply, there are no alternatives to preparing and submitting an IRP. The Council could, however, opt to direct staff to further amend the proposed IRP.

### **Fiscal Impact**

The costs associated with supply-side resources are recovered from electric utility customers through the Electric Energy Cost Adjustment Factor (EECAF), an energy cost adjustment mechanism. The EECAF is adjusted as frequently as monthly to reflect increases or decreases in the cost of transmission, purchased power energy, and related costs.

### **Coordinated With**

The IRP was developed by the Energy Resources Department.