



Draft City Council Report

Date: August 19, 2024
To: City Council
Through: Marc Heirshberg, Deputy City Manager
From: Scott Bouchie, Energy Resources Department Director
Anthony Cadorin, Energy Resources Program Manager
Deb Ferraro, Energy Resources Coordinator
Subject: Electric Power Purchase Agreement: Approval to enter into a Contract for Firm Electric Service with the United States Department of Energy Western Area Power Administration Salt Lake City Area Integrated Projects for Thirty-three (33) Years for Mesa's electric utility - Council Districts 1 & 4

Purpose and Recommendation

The City of Mesa Energy Resources Department (Mesa) recommends the City Council authorize the City Manager or his designee to enter into an agreement for the continuation of the delivery of Firm Electric Service with the Department of Energy's Western Area Power Administration (WAPA) for hydropower from the Colorado River Storage Project (CRSP) commencing on October 1, 2024 that will remain in effect through the end of the calendar day September 30, 2057 (Agreement). As this is a contract extension from one of Mesa's existing hydropower contracts¹, this power and energy will continue to be integrated into the electric utility's electric supply portfolio along with the renewable energy credits (RECs) generated commensurate with the energy generated.

Background

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 May 2024, electric service is provided to approximately 18,164 customers of whom approximately 15,390 are residential and approximately 2,774 are commercial, interdepartmental or another public authority. The City itself is the largest customer within the ESA (based on the combined use of all City facilities in the ESA). Summer peak demand in 2023 for the electric utility reached 89.6 MW.

Mesa's current electric power supply portfolio consists of a mixture of federal hydropower contracts, three (3) contracts for firm energy with Constellation Energy Generation, LLC and Exelon Generation Company, LLC, approximately 2 MW of customer-owned solar installations, and 804 kW of solar energy purchased through power purchase agreements with Solon Corporation.

¹ With the last term executed in 2004

This portfolio met about 96.2% of Mesa customers’ energy requirements of 334,960 megawatt-hours (MWhs) in the calendar year 2023 with 76.6% through competitively sourced market purchases and 19.6% through hydroelectric and solar resources. The remaining roughly 4% of the customers’ requirements can vary significantly due to weather fluctuations and therefore are met by real-time purchases from the regional wholesale markets on an *ad hoc* basis. WAPA acquires these additional resources on behalf of Mesa (and other similarly situated publicly owned utilities on an aggregate basis) through its Resources Management Services (RMS) program. This multi-party aggregating allows Mesa to take advantage of economies of scale that would not otherwise be available.

Discussion

The hydroelectric power provided to Mesa under the Agreement is generated from WAPA’s Salt Lake City Area Integrated Projects’ (SLCA Integrated Projects) Colorado River Storage Project (CRSP). Mesa has received power from the CRSP since 1989 when it was allocated 4.637 MW of summer capacity through the Arizona Power Pooling Association. When the CRSP was remarketed in 2004, Mesa’s capacity was reduced, and Mesa’s allocation was broken out from the Arizona Power Pooling Association and so the Agreement continues that smaller allocation with the following seasonal power and energy delivery rates:

Summer Season: Contract rate of delivery (CROD) of 4,312 kW of electric power and an associated 7,847,830 kWh of energy for the six (6) month period from the first day of the April billing period through the last day of the September billing period of any calendar year.

Winter Season: CROD of 3,407 kW of electric power and an associated 6,247,262 kWh of energy for the six (6) month period from the first day of the October billing period of any calendar year through the last day of the March billing period of the following calendar year.

The CRSP consists of the generators and reservoirs listed in Table 1:

Table 1) CRSP Reservoirs and Generators

Generator	Reservoir	Nominal Capacity	Location
Glen Canyon Dam	Lake Powell	1,320 MW	Page, AZ
Flaming Gorge Dam	Flaming Gorge Reservoir	150 MW	Utah – Wyoming Border
Navajo Dam	Navajo Reservoir	32 MW ²	San Juan & Rio Arriba County, NM
Aspinal – Crystal Dam	Crystal Reservoir	32 MW	Western Colorado – Gunnison River
Aspinal – Blue Mesa Dam	Blue Mesa Reservoir	86 MW	Western Colorado – Gunnison River
Aspinal – Morrow Point Dam	Morrow Point Reservoir	173 MW	Western Colorado – Gunnison River

The Glen Canyon Dam that forms Lake Powell is by far the largest of the CRSP facilities; is key for controlling water releases through the Grand Canyon to the Lower

² Although the Navajo Reservoir is part of the (water) storage project, the dam generates electricity that is reserved for the Town of Farmington.

Basin; and is important for generating and regulating power in the southwest United States.

The wholesale composite rate for CRSP energy was \$32.80/MWh in calendar year 2023. CRSP capacity and energy rates vary annually based on the project's budget and forecasted water availability. Because this is cost-based (with no fuel cost), hydropower generally tends to be one of Mesa's lowest cost electric supply resources. For comparison purposes, Mesa's average wholesale power purchase price for calendar year 2023 (purchased via RMS) was \$92.17/MWh.

WAPA and the United States Bureau of Reclamation (Reclamation) are under a continuing obligation to ensure the operation of Reclamation's hydroelectric facilities complies with Federal law. Due to this, WAPA maintains flexibility in its contracts to respond if Reclamation changes the way its facilities are operated. For example, due to persistent drought conditions that affect reservoir levels it was necessary that the energy allocation of the CRSP be reduced. That is, the hydroelectric capacity and energy that will be made available to the Contractor monthly is determined by WAPA based on prevailing water release conditions.

Alternatives

APPROVE THE CRSP CONTRACT. This will enable the continuation of the delivery of Firm Electric Service with the Department of Energy's Western Area Power Administration (WAPA) through 2057.

NOT APPROVE THE CRSP CONTRACT. Mesa could issue an RFP to solicit proposals for suitable replacement market power through more firm energy service contracts, which would be a potential risk with unknown cost and shorter terms. Mesa could also opt to purchase energy on the wholesale spot market through RMS. Purchasing wholesale spot market power through RMS instead of entering firm contracts through competitive bidding would subject a substantial portion of Mesa's base energy requirements to price and availability risks on the wholesale spot market and is not typically preferable. If Mesa elects not to approve this contract, there will not be an opportunity to receive CRSP hydropower resources until 2057, if at all.

Fiscal Impact

The costs resulting from the proposed supplies are recovered from electric utility customers through an energy cost adjustment mechanism which is revised as frequently as monthly (EECAF). The EECAF decreases when supply costs decline and increases when supply costs increase. Prices can vary significantly between indicative offers and refreshed best and final pricing depending on the movement of the wholesale energy market.

Coordinated With

The development of the Contract was coordinated with the City Attorney's Office.