

## STAFF REPORT

**DATE:** Oct 23, 2019  
**TO:** Summit County Council  
**FROM:** Lisa Yoder, Sustainability Program Manager  
Darcy Glenn, Energy and Data Analyst  
Dave Thomas, Chief Civil Attorney  
**SUBJECT:** Work session regarding Renewable Energy Service Contract



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*This staff report is provided to frame a discussion regarding a Renewable Energy Service Contract with Rocky Mountain Power to purchase renewable electrical energy to achieve Council's goal to transition to net 100% renewable electrical energy for government operations by 2032.*

**Goal of Work Session:** To gauge Council's interest in moving forward with a Renewable Energy Service Contract.

## BACKGROUND

Nearly six (6) years ago, Council member Roger Armstrong had the vision to challenge Rocky Mountain Power to transition their electrical supply to renewable energy. Since then, staff has:

- Thoroughly researched renewable energy options in place around the country;
- Partnered with other municipalities and business to achieve the economy of scale needed to obtain the lowest cost renewable resource available;
- Collaborated with Rocky Mountain Power, regulatory agencies, municipal and business partners to achieve a cooperative pathway to goals;
- Agreed to accept the cost to achieve our goals without passing costs on to non-participants;
- Competitively solicited renewable resources sited in Utah to aid in rural economic development and job creation;
- Obtained exceptional renewable energy price proposals;
- Negotiated terms and conditions of a mutually beneficial Renewable Energy Service Contract (RESC) with Rocky Mountain Power.

If executed, the Renewable Energy Service Contract (RESC) and companion Power Purchase Agreement (PPA) will allow Council to achieve its goal to transition to measured net 100% renewable electrical energy for all Summit County's government operations, with minimal risk, nearly 10 years ahead the target date.

## PROGRESS

Summit County executed a Joint Clean Energy Cooperation Statement (Cooperation Statement) with Rocky Mountain Power (RMP) in March 2018 that stated the parties' intent to work together to support the County's energy goals, specifically the pursuit of renewable energy for county operations.

The County subsequently entered an Engineering and Professional Services Agreement (EPSA) with RMP to conduct the professional services and procurement work related to the acquisition and delivery of renewable resources. In accordance with the EPSA, RMP issued a Request for Proposal

(RFP) for the combined operational electrical load of Summit County (including dependent service districts), Salt Lake City, Park City, Vail, Deer Valley, and Utah Valley University (the Partners). See Table 1.0 for a breakdown of partner participation.

**Table 1.0 Partner Participation<sup>1</sup>**

Partner Participation	MWh/Year <sup>2</sup>	MW Capacity <sup>3</sup>	% of RE Resources
Salt Lake City Municipal	100,000	38 MW	50%
Utah Valley University	38,706	15 MW	19%
Vail Resorts	24,000	9 MW	12%
Summit County	13,706	5.8 MW	7%
Park City Municipal	12,000	5 MW	6%
Deer Valley Resort	11,792	4 MW	6%

The result of the competitively-bid RFP was favorable. More than 100 renewable energy projects sited in Utah were received. Of those, eight (8) were selected to submit best and final cost proposals. The most cost-competitive bidder was selected who is presently negotiating a PPA with RMP to deliver that renewable energy to the Partners. The PPA, if agreeable, will be inserted in the Renewable Resource Appendix to the RESC and is expected to be ready for execution by the end of 2019 pending Public Service Commission approval.

A transition to net 100% renewable electrical energy is essential to achieving another Council goal stated in Resolution 2017-16:

Summit County will actively seek to:

- a. Reduce greenhouse gas emissions from County government operations by 80% below their 2016 level by 2040; and
- b. Implement strategies and policies to encourage the reduction of greenhouse gas emissions countywide by 80% below their 2014 level by 2050.

Electricity-related emissions are second only to solid waste as the largest portion of the County government operation’s greenhouse gas (GHG) emissions inventory, contributing 13% (2,281 metric tons) of carbon dioxide equivalent (CO<sub>2</sub>e) in 2018<sup>4</sup>.

Since 2010, Summit County has decreased electricity-related emissions from electricity usage in buildings by 30%, suggestive of the positive effect of the implementation of energy efficiency and renewable energy projects. This emissions avoidance occurred despite a significant increase in the total square footage of county facilities, the addition of previously unreported electric meters, and installation of electric vehicle charging stations.

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<sup>1</sup> Partner participation rates used in the RFP have been subsequently amended to reflect actual data and projected capacity demand.

<sup>2</sup> The MWh/Year apportioned to each customer is based on load forecasts provided by Rocky Mountain Power and validated by the County based on average 2016-2019 to date.

<sup>3</sup> The MW capacity apportioned to each customer is based on a solar resource annual capacity factor in year 1 of 30%.

<sup>4</sup> Electricity-related CO<sub>2</sub>e emissions make up 30% of Summit County’s 2018 GHG Emission Inventory of government operations only, excluding emissions associated with landfill; 13% of the County’s total emissions when landfill emissions are included.

Despite significant progress toward decreasing electricity consumption and associated GHG emissions to date, further reductions in the County operation's GHG inventory of electricity-related emissions can only be accomplished by completing a transition to renewable electrical energy. To achieve the full net 100% renewable electrical energy, the purchase of "unbundled" Renewable Energy Certificates (RECs) will likely be required to account for variations in electricity consumption and actual renewable energy generation year to year.

A REC is a market-based instrument that represents 1 MWh of renewable electricity generated and delivered to the electricity grid from a renewable energy resource. "Unbundled" RECs mean the certificates are bought and sold separately from the renewable electricity production that they represent. In contrast, 'bundled' RECs are tied to the electricity from the renewable energy resource being secured. In this case, the RECs will be tied to the electricity to be generated by the 80 MW solar PV resource being procured with this RESC/PPA. These RECs will be retired from the REC market and the Parties will maintain the full rights to the environmental, social and other non-power attributes of the renewable electricity generation.

To achieve Council's goal of net 100% renewable electricity by 2030—the year corresponding to RMP's transitions to 60% renewable general-grid electricity—Summit County will need to purchase RECs to cover 40% of any additional electricity not supplied by the RESC/PPA. If unbundled RECs are purchased before 2030, Summit County would be net 100% renewable electrical energy at an additional cost of \$6,000-\$12,000 annually. Over the 8 years between 2023 and 2030, the additional cost would be \$71,000. It is likely that the \$71,000 would be more effective if used on other projects to decrease electricity use or greenhouse gas emissions.

If executed, the RESC will ensure a pathway to about net 86% renewable electricity (dependent on actual electricity usage amounts) in 2025, surpassing Council's interim goal of net 50% by 2025. This transition to renewable electrical energy is expected to contribute 13% to Council's overall goal to decrease GHG emissions from government operations 80% below 2016 level by 2040.

It is important to note that the transition to electric fleet vehicles (another Council objective in Resolution 2017-16) will increase the County's electricity consumption and electricity-related emissions, necessitating an ongoing supply of clean, renewable energy to maintain progress toward achievement of Council's emissions reduction goals for both county operations and countywide.

## **UPDATE**

Since staff's update to council June 5, 2019, a renewable energy developer was selected and the following concerns that impact the renewable energy price were resolved:

- Avoided cost is being calculated using the current 2017 Integrated Resource Plan.
- Cost of network and transmission upgrade costs are estimated at \$1.2M.<sup>5</sup>
- Interconnection upgrade costs will be borne by the participating customers per Schedule 34.
- RMP's monthly bill administration cost has been established at \$6,000/month.

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<sup>5</sup> Large Generator Interconnection Facilities Study Report completed by PacifiCorp for the renewable resource developer.

- Cost impacts to the County budget per the terms and conditions of the pending Renewable Energy Service Contract (RESC) and Power Purchase Agreement (PPA) are favorable although some variables remain unknown.

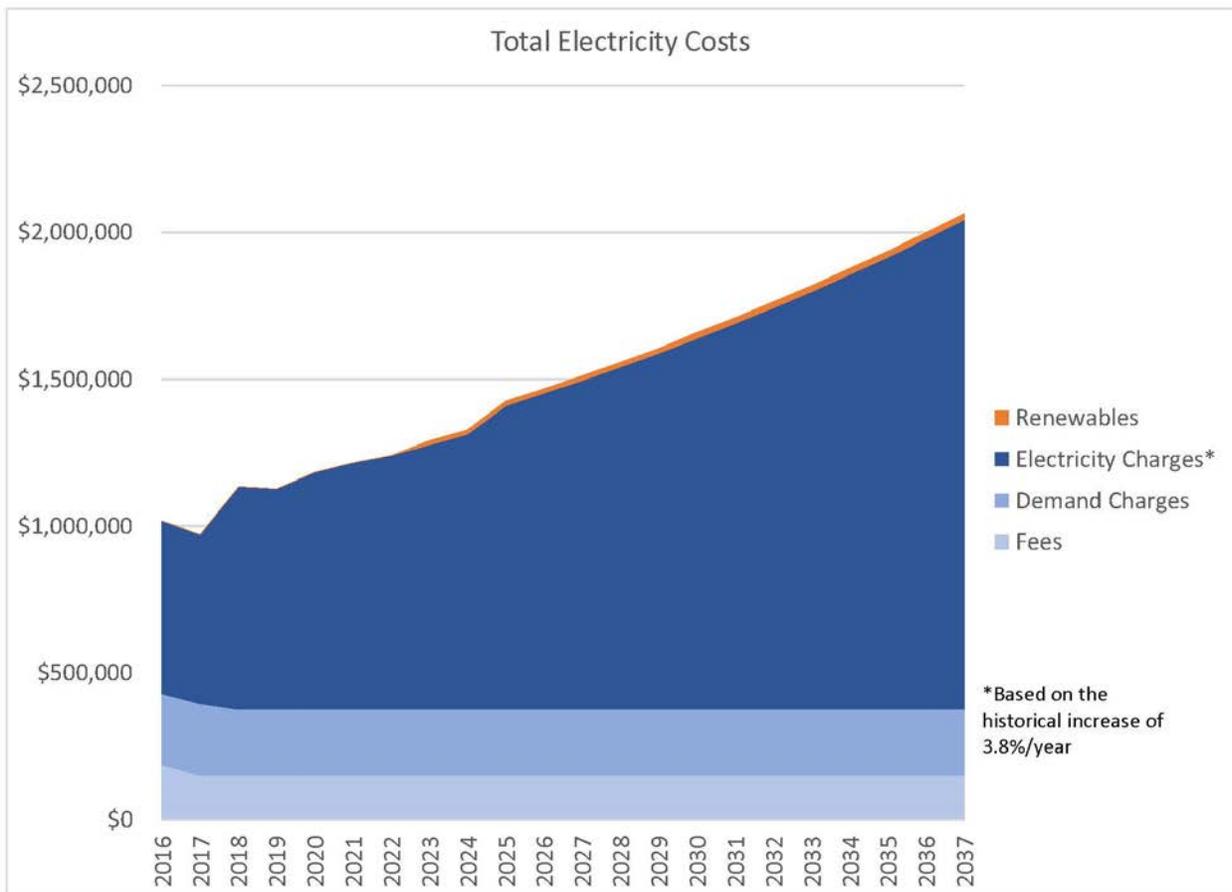
**RENEWABLE ENERGY SERVICE CONTRACT (RESC)**

The Partners and their legal teams have written a master agreement with RMP (the RESC) that authorizes RMP to procure a renewable resource for the Partners. Dave Thomas, Summit County’s Chief Civil Attorney, will explain the RESC using a power point presentation.

**PROJECTED BUDGET IMPACT**

Using historical data, projected changes in electricity usage reported by the dependent service districts and careful application of the renewable energy cost formulas in the RESC, there will be very little cost to achieve Council’s goal of net 100% renewable energy by 2032. The exact renewable energy rate cannot be disclosed in a public meeting per the terms of a Non-Disclosure Agreement executed to protect the Parties’ negotiations with RMP and the selected bidder’s pricing. However, staff estimates the cost impact of total electricity costs to Summit County and its dependent districts’ budgets to be \$15,000 - \$21,000/year, as shown in Graph 1.0 below.

**Graph 1.0 Total Electricity Costs**



The actual renewable energy rate may change to some degree from year after year due to variables that are impossible to predict: solar radiation increasing/decreasing amount of renewable electricity generated; seasonal variables that alter the amount of electricity consumed each year, additional facilities requirements, to name a few. Therefore, a True-Up charge will be applied the year following any year that the amount of energy contracted is not used.

Using the formulas in the RESC to estimate the True-Up costs under various scenarios that could occur, the True-Up cost, when applicable will be nominal and divided between the districts as illustrated in Table 1.1 below. Energy and Data Analyst, Darcy Glenn will explain various conditions and how those variables would impact True Up costs.

**Table 1.1 Summit County and dependent districts participation.**

Summit County and Districts Participation	Avg. Actual Electricity Use (kWh) 2016-2018	% of Summit Co. RESC	Est. True Up Cost (if Applicable) <sup>6</sup>
Mountain Regional Water SSD	9,024,769	67.2%	\$542
North Summit Senior Center	17,711	0.1%	\$1
Park City Fire District	423,665	3.2%	\$20
Park City Senior Citizens	13,393	0.1%	\$1
Synderville Basin Recreation District	862,283	6.4%	\$60
Summit County	3,096,140	23.0%	\$163
<b>Total</b>	<b>13,437,962</b>	<b>100%</b>	<b>\$787</b>

## SUMMARY

If the renewable energy cost finalized in the PPA remains the same as the selected renewable energy project proposal, Summit County’s execution of the RESC with RMP by the end of 2019 will commit Summit County and its dependent districts to purchase net 100% renewable energy at a fixed renewable energy rate for 15 years, beginning in 2023.

## TIME LINE/NEXT STEPS

- Council reviews and agrees to move forward with intent to purchase net 100% renewable energy per RESC (Oct. 23, 2019).
  - Council supports County Manager’s execution of RESC if/when acceptable PPA is inserted in the Renewable Energy Appendix.
- RMP files customers’ unsigned RESC(s) with PSC by end of Oct. 2019.
- RMP executes PPA with renewable energy developer (approx. Nov. 15, 2019).
- Staff, Council, Districts review and approve the PPA by Dec 1, 2019.
- County Manager executes RESC with PPA for County and dependent Districts (Dec. 13, 2019).

<sup>6</sup> Assumes that Summit County and its dependent service districts use 50MWh less than the amount of electricity listed in the RESC.

- PSC final, non-deniable PSC approval of RESC(s) filing no later than Dec. 31, 2019.
- Developer starts construction to safe harbor 30% Investment Tax Credit<sup>7</sup> by Dec. 31, 2019.
- Construction of renewable resource to be completed by Dec. 31, 2022.
- Receive net 100% renewable electrical energy beginning January 2023.

## **ALTERNATIVES**

### **Alternative 1: Continue buying standard offer non-renewable electricity.**

Progress toward GHG Emissions Reduction and Renewable Energy Goals: None.

Budget impact: Electricity rates historically increase 3.8% per year.

Timeline: N/A.

Risk(s): Variable future electricity cost; political risk of failing to progress toward goal.

### **Alternative 2: Wait for Rocky Mountain Power to build new renewable resources and retire certain fossil fuel plants to supply to 60% renewable energy by 2030.<sup>8</sup>**

Progress toward Goals: 60% maximum attainment toward 100% renewable energy goal; 7.8% achievement of GHG emissions reduction goal.

Budget impact: Unknown. Electricity rates to be determined by PSC and unknown future conditions.

Timeline: 2030.

Risk(s): Future outcomes unknown; electricity rates to be determined by PSC.

### **Alternative 3: Wait for implementation of the Community Renewable Energy Program to purchase net 100% renewable energy for government facilities located within county jurisdiction.**

Progress toward goals: Reach 60% of transition to net 100% renewable energy; Only available to county facilities and dependent districts sited in jurisdictions that participate in Community Renewable Energy program.

Budget impact: Higher renewable energy cost than existing RESC/PPA costs.

Timeline: 5-15 years for program implementation and construction of renewable resources.

Risk(s): No guarantee of PSC approval; possible amendments to HB411 legislation; community opposition to ordinance; possibly cost prohibitive renewable energy rates.

### **Alternative 4: Construct county-owned 6-7 MW renewable energy resource.**

Progress toward goals: Achieve net 100% renewable energy goal; Projected 30% reduction in GHG emissions associated with county and districts' electricity usage (excluding landfill).

Budget Impact: Estimated cost \$1M to \$25M + \$7M transmission upgrades costs<sup>9</sup>.

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<sup>7</sup> The Federal Investment Tax Credit decreases to 26% in 2020, 22% in 2021 and 10% in 2021 through 2023.

<sup>8</sup> Rocky Mountain Power Integrated Resource Plan (2019)

<sup>9</sup> Average Transmission Upgrade costs of projects submitted for the RFP.

Timeline: 3-7 years.

Risk(s): Avoided Cost increase, cost of land (purchase or lease), permits & regulatory approvals, unknown results of interconnection and environmental study results, position in interconnection queue, procurement of desirable renewable energy projects by other municipalities and businesses.

**Alternative 5: Purchase Renewable Energy Credits (REC)**

Progress toward goals: Achieve net 100% renewable energy goal; Projected 13% reduction in GHG emissions associated with county and districts' electricity usage.

Budget Impact: \$75,000/year at \$5/MWh. (Present market rate of REC is \$1-\$20/MWh).

Timeline: 2020, if budgeted and approved.

Risk(s): Funding long-term, purchasing attributes rather than new renewable energy from a resource sited in Utah.

**Alternative 6: Agree to execute RESC if approved by PSC and PPA is acceptable.**

Progress toward goals: Achieve net 100% renewable energy goal; Projected 30% reduction in GHG emissions associated with county and districts' electricity usage (excluding landfill).

Budget Impact: Approx. \$15,000-\$21,000 annually to achieve 92% renewable electrical energy in 2023; the RESC's contribution drops to 85% in 2030. To reach 100% in 2030, unbundled RECs would need to be purchased at an additional cost of \$5,000-\$6,000 annually, assuming the completion RMP's 60% renewable grid upgrade.

Timeline: 2023 or 2030 pending purchase of RECs

Risk(s): Committing future resources, PSC approval, unknown actual True-Up costs.

**Staff Recommendation**

If PPA is agreeable, execute the RESC by the end of 2019 and commit Summit County and its dependent districts to purchase net 100% renewable energy at the PPA-determined renewable energy rate for 15 years beginning in 2023.