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A Benefit Corporation

To: Justin Robbins
Shelter Cove Resort Improvement District

From: Dan Griffiths
Cameron-Daniel, P.C.

Date: March 4, 2019

Re: **Review of Shelter Cove Resort Improvement District Wholesale Power Opportunities**

Introduction

The State of California's electricity market is encountering a period of rapid and substantial change. In the past several years, regional electricity markets have grown, renewable resources have experienced price reductions, and smaller distributed generation has become more prominent in the State. Recently, California has faced wildfires which impacted electric transmission and distribution infrastructure. The State is also in the midst of the bankruptcy of Pacific Gas and Electric Company (PG&E). As a provider of electric service to retail customers, Shelter Cove Resort Improvement District (Shelter Cove) should consider this electric market change and the growing amount of options for wholesale power procurement and delivery as part of its planning and operations. Provided below is a list of three key service contract decision points, as well as wholesale procurement structural options, for consideration to ensure Shelter Cove is well positioned to provide affordable and reliable electric service to its customers in the years to come.

Executive Summary

We recommend the Shelter Cove conduct the following processes related to its wholesale power activities:

- Begin in mid-2019 discussing its scheduling services contract (06-SNR-00927) renewal with the Western Area Power Administration (WAPA) while reviewing similar service packages from other providers.
- Start in late-2019 discussing with PG&E the terms of the Wholesale Distribution Tariff Interconnection Agreement and Service Agreement contract renewal.
- Review power generation options ahead of WAPA's 2024 Base Resource Contract expiration and examine the advantages of participating in the 2025-2054 Base Resource Contract.
- Pursue partnerships with other retail service providers or Joint Powers Authorities to procure power generation at scale.



I. Key Service Contract Decision Points

(A) WAPA Full Load Service Agreement and Scheduling Coordinator Services

WAPA and Shelter Cove on January 3, 2017 extended their Full Load Service (FLS) contract to December 31, 2024. Under the FLS contract (06-SNR-00926), WAPA provides supplemental power and portfolio management services to Shelter Cove. From the most recent revision available (February 1, 2010), the monthly charge for portfolio management services is \$2,250 per month. WAPA and Shelter Cove are also parties to a Scheduling Coordinator (SC) services contract (06-SNR-00927), dated June 1, 2015. The most recent available SC services contract appears to have extended the previous contract termination date by five years, for a new termination date of September 30, 2020. The most current rates (effective February 1, 2010) consist of a base charge of \$4,950 per month, with several additional fees based on the number of meters and a schedule changes.

As the amount of electric retail service providers have grown, the organizations providing portfolio management and SC services for these providers have grown substantially as well. Ahead of the September 30, 2020 expiration date, it would be worthwhile for Shelter Cove to consider available service providers as an alternative to these existing service contracts. For example, in a 2016 contract with Silicon Valley Clean Energy (SVCE), a much larger entity (4,000 GWh of forecasted demand for 2019), SC services were provided at a flat rate of \$4,250 per month with a 2% escalation.¹ Ultimately, it is important to consider the cost of the combined service package, but opportunities may exist to provide these services at a greater value.

(B) PG&E Service Agreement and Interconnection Agreement

PG&E and Shelter Cove are parties to a Wholesale Distribution Tariff (WDT) Service Agreement (SA) and Interconnection Agreement (IA) to ensure the delivery of electricity to Shelter Cove. The SA and IA were renewed on December 1, 2017, for a period of three years. This means that contract renewal will occur by December 1, 2020.

In the 2017 renewal, the distribution service charge rate was increased from \$5.752/kW-month to \$6.056966/kW-month. The distribution charge substantially affects the overall cost Shelter Cove incurs in providing electricity to its customers, and should be reviewed and discussed for the contract renewal.

The 2017 renewal also contained modifications of important contract terms related to issues such as generator operation and contract default. For example, Section 8.7 states that Shelter Cove “shall not operate its own, or permit a Third Party to operate any, generating facility connected directly or indirectly to Shelter Cove’s or PG&E’s Electric System without first entering into a new or amended, written interconnection agreement with PG&E which in PG&E’s judgment provides for such operation in a safe and reliable manner, including but not limited to requiring

¹ See, e.g., SVCE Scheduling Coordinator Contract (November 9, 2016), *available at* <https://www.svcleanenergy.org/files/managed/Document/537/2016-1109%20Agenda%20Packet%20%28F%29.pdf>



the generating facility to enter into a PG&E standard Generator Interconnection Agreement.” Further, Section 8.7.1.2 states that Shelter Cove must submit an interconnection request to PG&E prior to connecting photovoltaic generation to its systems. These terms are important to review, because as the California electric market evolves, there will be increasing opportunities in the future for local and regional generation ownership to be an effective component of a public agency’s portfolio.

Given that the terms of a subsequent renewal will be the byproduct of discussions between PG&E and Shelter Cove, Shelter Cove should consider scoping needs related to the contract at the end of 2019, to allow ample time for discussions and negotiation with PG&E. As an example, the previous finalized agreement between Shelter Cove and PG&E was filed in September ahead of a December effective date.

(C) WAPA Base Resource Contract

Shelter Cove’s Base Resource Contract with the WAPA expires on December 31, 2024. Shelter Cove currently receives a 0.03320% base resource allotment. Shelter Cove, as an existing allottee, can participate in the new Base Resource Contract. For the new contract, WAPA is planning on a 30-year term from January 1, 2025 to December 31, 2054. This is a relatively long term length for a wholesale power contract. As an example, Shelter Cove’s existing Base Resource Contract with WAPA is from October 1, 2005 through December 31, 2024 (approximately 19 years). Power purchase agreements for many renewable resources in California typically operate under a 20-year term length.² Given this important, long-term decision for Shelter Cove’s electricity needs, Shelter Cove should weigh and consider the future Base Resource Contract along with other wholesale power generation opportunities.

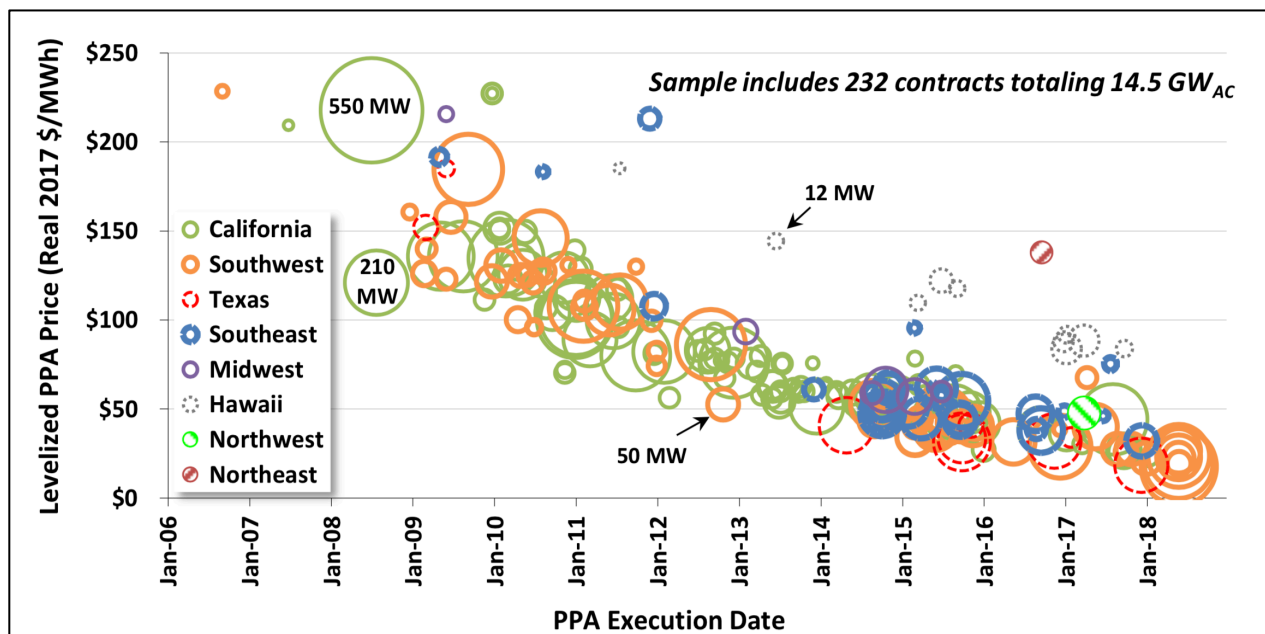
Historically, WAPA base resource has been a good value resource for an entity such as Shelter Cove to utilize. Particularly in years with heavy precipitation, the base resource costs have trended below the market rate for wholesale power. This is because, though there are several factors in base resource costs, the overall cost of base resource is generally determined by dividing WAPA’s costs by the amount of generation. In years of heavy precipitation, there is more hydroelectric generation in Megawatt-hours (MWh), so the price of each MWh is reduced. Further, there is the potential for ancillary services and other integrated options (such as the service contracts described above) through the WAPA base resource allotment, which must be considered in the overall value of proceeding with a new Base Resource Contract.

However, as a potential alternative to WAPA Base Resource energy, it is worth mentioning that the price of utility-scale renewables has fallen dramatically in the past several years, to the point where utility-scale solar offers fixed price contracts at rates that have been superior to the base resource historical prices. A 2018 study by Lawrence Berkeley National Laboratory found levelized PPA prices of solar well below \$40/MWh. As shown in the graph below, a ten-year price curve showing new utility-scale solar resources (California resources are highlighted in

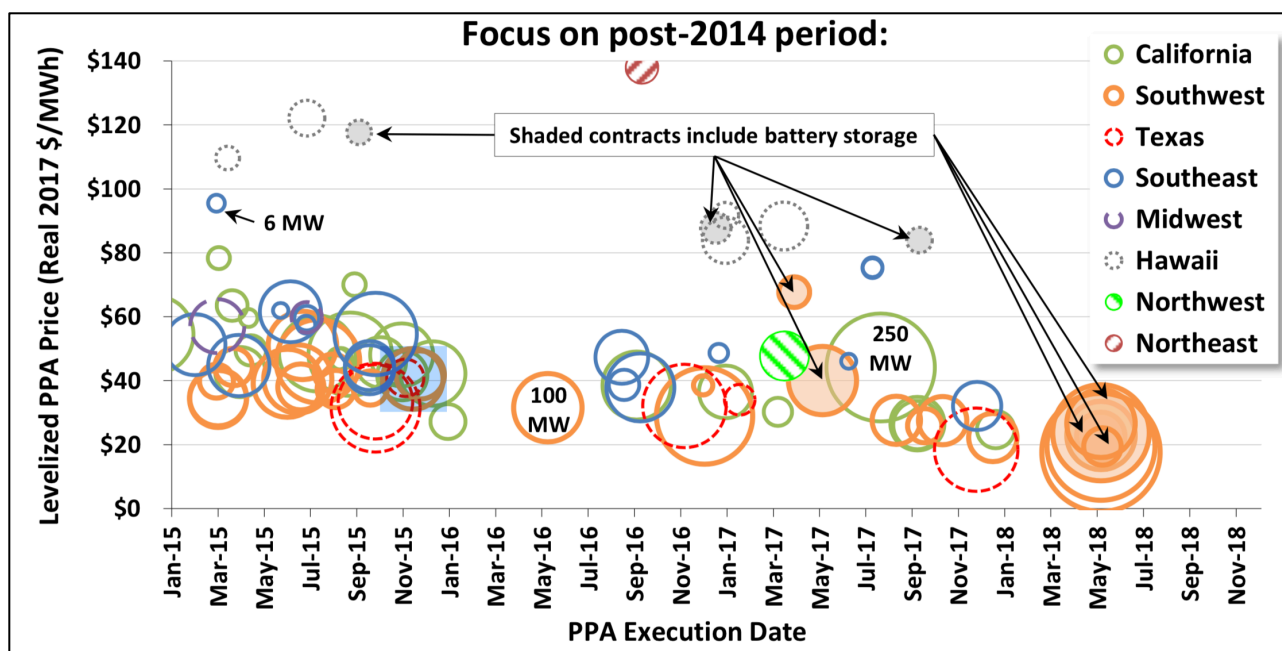
² See Bolinger & Seel, *Utility Scale Solar: 2018 Edition* (September 2018) at 31 (median solar PPA term length in the United States of 20 years), available at https://emp.lbl.gov/sites/default/files/lbnl_utility_scale_solar_2018_edition_report.pdf.



green) is downward sloping from above \$200/MWh in 2007 to under \$40/MWh in 2018, though the rate of decrease has slowed somewhat.³



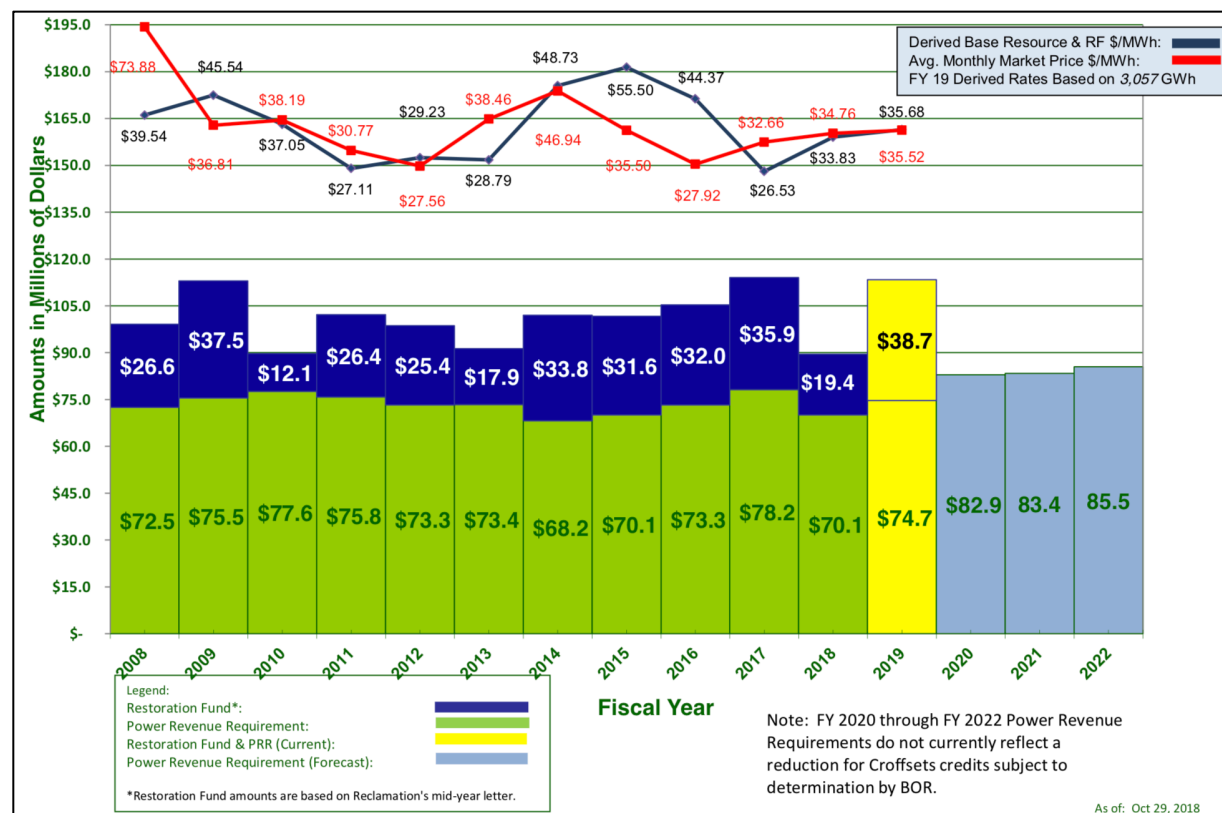
Additionally, the Lawrence Berkeley PPA pricing study shows a decline in California from \$80/MWh in May 2015 to approximately \$30-40/MWh in January 2018, as shown in the graph below.



³ *Id.* at 32-33.



To compare these findings with recent base resource prices released by WAPA in October 2018, we see that base resource prices are impacted by external conditions, such as precipitation, which can force base resource pricing considerably above market pricing in times of drought. As an example, in 2015, the derived resource price rose to \$55.50/MWh while the market price was \$35.50/MWh. On the other hand, in times where there is more precipitation, such as 2017, the WAPA base resource dropped to \$26.53/MWh while market pricing was higher at \$32.66/MWh.



Interestingly, market pricing has recently remained close to base resource prices, even in years with higher precipitation. One possible contributing factor for this trend is the price trend of renewable resources such as solar, where as noted above, utility-scale solar prices are declining and are currently fixed at approximately \$30/MWh for a 20-year term. The current resource contract does not expire until 2024, but because utility-scale generation generally has a construction lead time of at least a year, Shelter Cove should consider these other generation options as it approaches the 2024 Base Resource Contract expiration date.

II. Wholesale Procurement Structural Options

Shelter Cove presently conducts its own electric operations and wholesale procurement on a stand-alone basis. In other words, Shelter Cove has procured its electricity independently of other entities in California. Due to the nature of wholesale power procurement, and the



economies of scale, the cost of power and electric operations can be reduced when power is collectively purchased in larger quantities.

The California Joint Exercise of Powers Act, codified in Government Code Section 6500 *et. seq.*, permits two or more California public agencies by agreement to exercise “any power common” to the contracting parties through a Joint Powers Authority (JPA).⁴ The definition of public agency lists many types of California public agencies, and the statutory definition of public agency is “not limited” to the listed entities.⁵ Shelter Cove Resort Improvement District is a special-purpose district established pursuant to California Public Resources Code Section 13000 *et. seq.*, that has the power (in addition to other conferred powers) to “produce, purchase, and sell electrical power” within its jurisdiction.⁶ Though further review may be required, as a Resort Improvement District governed by a five-member board of directors elected to four-year terms of office by the residents of Shelter Cove, Shelter Cove likely falls within the public agency definition for the purposes of the California Joint Exercise of Powers Act.

Given the potential benefits of collective wholesale power purchases, California has experienced a rise in cities, counties, and other public agencies conducting wholesale power procurement and other electric operations through a JPA on behalf of individual public agency members. This creates a climate for Shelter Cove to utilize: (i) CCA program partnerships; (ii) membership in existing electric service JPAs; and (iii) new JPAs for the benefit of Shelter Cove.

(A) Partnerships with Community Choice Aggregation Programs

Many JPAs have been formed recently to operate Community Choice Aggregation programs (CCAs) that provide retail electric service to communities in California. Proximate to Shelter Cove, Redwood Coast Energy Authority (RCEA) is a JPA that operates a CCA program that includes the County of Humboldt, Humboldt Bay Municipal Water District, and cities within Humboldt County. As these CCAs develop and enter into contracts with electric generating facilities, there may be opportunities for a partnership or a project-specific JPA between Shelter Cove and a nearby CCA program. For example, RCEA is moving forward with developing a 120-150 MW offshore wind project.⁷ RCEA submitted a lease application for the wind project development site, located in the North Coast approximately 25 miles from Eureka, with the Bureau of Ocean Energy Management on September 12, 2018, and is continuing to seek lease approval through subsequent applications. In such a situation, Shelter Cove could partner with or contract separately for a portion of that same project’s megawatt (MW) capacity sufficient to meet the portfolio needs of the Shelter Cove community. Offshore wind may be relatively expensive, but worth investigating nonetheless because of Shelter Cove’s location on the Pacific coastline.

Similarly, there may be land-based solar and wind developments that may be worth exploring through strategic partnerships with other California public agencies to provide locally-produced

⁴ California Government Code § 6502.

⁵ *Id.* § 6500.

⁶ California Public Resources Code § 13076(a).

⁷ More project information is available at: <https://redwoodenergy.org/offshore-wind-energy/>



utility-scale energy for Shelter Cove. As example, RCEA on February 11, 2019 released an RFP for wind, solar, and hydropower.⁸ The requested contract capacity is sufficient that Shelter Cove could participate as an off taker of some portion of the project's capacity, and potentially receive a lower price by jointly contracting for energy projects at a larger scale than Shelter Cove could on its own.

(B) Existing JPA Memberships

There are multiple existing JPAs in California not operating CCA programs that also exist to provide the benefits of collective wholesale power purchases. The Northern California Power Agency (NCPA) is a JPA that allows public agencies in California to make joint investments in energy resources, as well as provide scheduling and portfolio management services to its members.⁹ The Power and Water Resources Pooling Authority (PWRPA) is a JPA where California public water agencies collectively manage power generation assets and loads.¹⁰ In Southern California, the Southern California Public Power Authority (SCPPA) exists for the joint financing and operation of transmission and generation projects for public agencies.¹¹ Related to the discussion of portfolio management and scheduling services in Section I above, and the discussion of joint participation in generation projects in Section II(A), outreach to these organizations may yield benefits for Shelter Cove in cost and risk sharing for its wholesale power and operational needs.

(C) New JPA Formation

Lastly, Shelter Cove could consider the option of creating a new JPA in California focused on electricity services as a means to share electric power and operational costs. As noted above, this new JPA could be project-specific (such as for wind and solar facility development) or allow for a cost sharing of operational needs. Given the administrative considerations of new JPA formation, and potential involvement of Local Agency Formation Commissions, Shelter Cove should consider Section II (A) and (B) as first steps prior to embarking on new JPA formation.

Conclusion

Shelter Cove has a substantial amount of wholesale power opportunities as its 2024 Base Resource Contract with WAPA reaches its conclusion. These opportunities exist for scheduling services, portfolio management, and wholesale power procurement. Shelter Cove should consider how to best utilize its current partnerships with organizations such as WAPA and PG&E, as well grow new partnerships with other California organizations, to provide reliable and cost-effective electric service for its residents. These above-described decision points and structural considerations are important steps towards achieving these goals.

⁸ RFP information is available at: https://redwoodenergy.org/wp-content/uploads/2019/02/RCEA_2019_RPS_RFP.pdf

⁹ More information is available at: <http://www.ncpa.com>

¹⁰ More information is available at: <http://www.pwrpa.org>

¹¹ More information is available at: <http://www.scppa.org>