



Staff Report Item 7

TO: East Bay Community Energy Executive Committee Members

FROM: Nick Chaset, Chief Executive Officer

SUBJECT: EBCE Study on Renewables, GHG and Rates

DATE: April 27, 2018

Recommendation

Discuss Study that EBCE Staff has developed in response to JPA Article 7.1.3 - The Right to Withdrawal Prior to Program Launch.

Discussion

EBCE Staff, with support from NCPA, has developed an analysis that responds to JPA Article 7.1.3 - The Right to Withdrawal Prior to Program Launch. This JPA Article requires that EBCE compare its estimated electrical rates, greenhouse gases and estimated renewable energy to those of the incumbent utility (PG&E). The study focuses on EBCE's forecast renewables percentage, GHG content and rates relative to PG&E. The analysis finds that, at launch and through 2018, EBCE's renewable percentage and GHG content are better than those offered by PG&E to Alameda County residents. Additionally, this analysis finds that EBCE's approved Bright Choice rates offer a discount to EBCE member jurisdictions as compared to PG&E rates.

The memo is included as an attachment to this item.

Attachment

A. JPA Article 7.1.3 Memo



TO: East Bay Community Energy Joint Powers Authority Members

FROM: Nick Chaset, Chief Executive Officer

SUBJECT: East Bay Community Energy Joint Powers Authority Article 7.1.3 Analysis

DATE: April 27, 2018

Introduction

East Bay Community Energy's Joint Powers Authority Agreement Article 7 lays out the circumstances under which a JPA member can withdraw from the East Bay Community Energy Authority and when the JPA agreement can be terminated. Article 7.1.3 specifically addresses the right of the JPA member to withdraw prior to program launch. It states:

After receiving bids from power suppliers for the CCA Program, the Authority must provide to Parties a report from the electrical utility consultant retained by the Authority comparing the Authority's total estimated electrical rates, the estimated greenhouse gas emissions rate and the amount of estimated renewable energy to be used with that of the incumbent utility. Within 30 days after receiving this report, through its City Manager or a person expressly authorized by the Party, any Party may immediately withdraw its membership in the Authority by providing written notice of withdrawal to the Authority if the report determines that any one of the following conditions exist: (1) the Authority is unable to provide total electrical rates, as part of its baseline offering to customers, that are equal to or lower than the incumbent utility, (2) the Authority is unable to provide electricity in a manner that has a lower greenhouse gas emissions rate than the incumbent utility, or (3) the Authority will use less qualified renewable energy than the incumbent utility. Any Party who withdraws from the Authority pursuant to Article 7.1.3 shall not be entitled to any refund of the Initial Costs it has paid to the Authority prior to the date of the withdrawal unless the Authority is later terminated pursuant to Section 7.3. In such event, any initial Costs not expended by the Authority shall be returned to all Parties, including any Party that has withdrawn pursuant to this section, in proportion to the contribution that each made. Notwithstanding anything to the contrary in this Agreement, any Party who withdraws pursuant to this section shall not be responsible for any

liabilities or obligations of the Authority after the date of withdrawal, including without limitation any liability arising from power purchase agreements entered into by the Authority.

In response to this requirement, EBCE Staff has been working with the Northern California Power Agency, EBCE's Scheduling Coordinator and Energy Portfolio Manager, to develop a thorough assessment of EBCE's energy procurement trajectory to respond to the Renewable Energy and Carbon-free energy criteria. For the third criteria in the JPA Article, which relates to EBCE's rates relative to PG&E, EBCE staff compared EBCE's adopted rates to PG&E's current rates (which were issued in February 2018) to show that EBCE customers will receive a discount on their bills as compared to PG&E rates.

Criteria 1 and 2: Comparison of EBCE and PG&E Renewable and Carbon-free energy Content

NCPA assessed both EBCE's actual procured energy as well as its 2018 procurement plan and found¹ that EBCE is on track to serve EBCE Bright Choice customers in 2018 with :

- 1) Over 38% qualified renewable energy
- 2) Over 85% carbon-free energy (over 38% renewable and over 47% carbon-free large hydro)

An exact contrast to PG&E (the incumbent utility) is somewhat challenging because PG&E has not yet published a validated procurement plan for 2018 and will not do so until summer, when it submits an Energy Resource Recovery Account Application to the California Public Utilities Commission. In the absence of an approved procurement plan, EBCE has selected two metrics to use as points of comparison. The first is PG&E's most recent self-reporting of both renewable and GHG-free (also known as carbon-free energy) energy. The second is the California Energy Commission's independent audit of the types of energy sources load serving entities like PG&E and EBCE use.

In a February 20, 2018 News Release, PG&E self-reported the following:

*"The company announced today that 33 percent of its electricity came from renewable resources including solar, wind, geothermal, biomass and small hydroelectric sources in 2017. Additionally, 78.8 percent of PG&E's total electric power mix is from GHG-free sources including nuclear, large hydro and renewable sources of energy."*²

¹ NCPA's full findings are attached to this memo

²https://www.pge.com/en/about/newsroom/newsdetails/index.page?title=20180220_pge_clean_energy_deliveries_already_meet_future_goals

Table 1 - PG&E Self-Reported Renewable and Carbon-free Content

Renewable Energy %	33%
Carbon-free Energy %	78.8%

The second point of measurement is PG&E’s validated Power Content Label. The Power Content Label is a measure of what sources of electricity supply Load Serving Entities, like PG&E and EBCE. The California Energy Commission publishes the Power Content Label each fall for the previous year, so PG&E’s 2018 Power Content Label will not be published until fall 2019. While the Power Content Label is a lagging indicator of both renewable energy and carbon-free energy, it is the primary measure where a single third party reviews all Load Serving Entities using the same measurement criteria. The benefit of using the Power Content Label is that it provides a uniform way to compare EBCE and PG&E.

Table 2 - 2016 Power Content Label³

Pacific Gas and Electric		
Energy Resources	Power Mix	2016 CA Power Mix
Eligible Renewables	33%	25%
Coal	0%	4%
Large Hydro Electric	12%	10%
Natural Gas	17%	37%
Nuclear	24%	9%
Other	0%	0%
Unspecified sources of power	14%	15%

A comparison between EBCE’s procurement plan and PG&E’s reported renewable energy and carbon-free energy shows that EBCE will procure 7% more carbon free energy than PG&E.

Table 3 - EBCE-PG&E Renewable and Carbon-free Energy Comparison

	2016	2017	2018
PG&E			

³ http://www.energy.ca.gov/pcl/labels/2016_labels/Pacific_Gas__and__Electric.pdf

Renewable	33%	33%	Not reported
Carbon-free	69%	78.8%	
EBCE			
Renewable	N/A		38%
Carbon-free			86%
Renewable	EBCE: 38%, PG&E: 33% = EBCE 5% higher renewable		
Carbon-free	EBCE: 86%, PG&E: 78.8% = EBCE 7% higher carbon-free content		

Additionally, in PG&E's 2017 Renewable Portfolio Plan filing with the California Public Utilities Commission, PG&E stated that it does not plan to pursue incremental renewables procurement in 2018 (the 2017 procurement cycle) and will instead be selling renewable energy. As PG&E noted in its Renewable Energy Procurement Plan:

Given its forecasted position and these continued trends, PG&E is pursuing several strategies to better align its RPS volumes with its RPS need, as described in more detail in the following sections. PG&E proposes to refrain from holding an RPS procurement solicitation for the 2017 cycle and will continue to assess potential sales of excess RPS volumes. Moreover, PG&E plans to seek to suspend or change existing procurement mandates, and oppose new mandates, that require PG&E to obtain RPS resources despite a documented lack of RPS need. (Summary of Key Issues, PG&E 2017 Renewable Energy Procurement Plan, p.2)

While these statements should not be used as the basis to project where exactly PG&E will be at the end of 2018, this statement is an indicator that PG&E's 2018 renewables content will not increase significantly. Based on the facts laid out here, EBCE Staff analysis finds that EBCE will meet threshold set in the EBCE JPA Agreement for exceeding PG&E renewable and carbon-free energy levels.

Criteria 3: Comparison of EBCE and PG&E Rates

On March 21, 2018, the EBCE Board of Director's approved the rates for EBCE customers when EBCE launches service on June 1, 2018. The EBCE rates are benchmarked off of PG&E rates, specifically on PG&E's 2018 Annual Electric True-Up - Consolidated Rate Changes Effective March 1, 2018⁴. EBCE's approved rates for its primary default product - Bright Choice - includes an across the board 1.5% discount relative to PG&E's rates. As a result, when EBCE commences serving customers in June 2018, all customers taking EBCE's Bright Choice product will benefit from a 1.5% rate discount relative to what they would have paid PG&E. Below is a table that includes a comparison of EBCE's most common rates (a full comparison of EBCE and PG&E's rates is attached to this memo).

PG&E and EBCE Rate Comparison Table

	PG&E Generation	EBCE Generation	PCIA	EBCE Total Rate	Discount
Residential					
E-1	0.10780	0.07217	0.03401	0.10618	1.5%
Small L&P					
A-1 Summer	0.1257	0.09853	0.02528	0.1257	1.5%
A-1 Winter	0.8648	0.0599	0.02528	0.08648	1.5%
Medium L&P					
A10 - Demand	4.7	4.6295		4.6295	1.5%
A-10 - Summer	0.1062	0.07893	0.02568	0.10461	1.5%
A-10 - Winter	0.08282	0.0559	0.02568	0.8158	1.5%
E-19 Class					
E-19P Peak Summer	0.12751	0.10395	0.02165	0.1256	1.5%
E-19P Off-Peak Winter	0.06511	0.04248	0.02165	0.06413	1.5%
E-20 Class					
E-20P Peak Summer	0.13073	0.10933	0.01786	0.12877	1.5%
E-20P Off-Peak Winter	0.06558	0.04516	0.01944	0.0646	1.5%

EBCE will also be offering a 100% Greenhouse Gas Free option to customers call Brilliant 100. The Brilliant 100 rates match those of PG&E's current rate for standard electricity.

⁴ https://www.pge.com/tariffs/assets/pdf/adviceletter/ELEC_5231-E.pdf

Conclusion

East Bay Community Energy's Joint Powers Agreement requires an analysis comparing EBCE and PG&E rates, renewable energy and carbon-free energy content.

1) Comparison of EBCE and PG&E Renewable and GHG-free energy

In consultation with the Northern California Power Agency, EBCE's scheduling coordinator and energy portfolio manager, EBCE assessed its procurement plan and found that its current trajectory is to procure over 38% eligible renewable energy and 48% RPS eligible carbon-free energy, for a total of over 86% carbon-free energy in 2018. EBCE staff then performed an analysis of two reports on PG&E's renewable and carbon-free content and found that EBCE's 2018 trajectory exceeds PG&E's reported 2016 and 2017 renewables and carbon-free energy levels. When comparing EBCE to PG&E's reported 2017 RPS and carbon-free energy levels, EBCE's procurement plans exceeds that of PG&E by 5% for renewable energy and 7% for carbon-free energy.

2) Comparison of EBCE BrightChoice, Brilliant 100 and PG&E Rates

After EBCE's Board of Directors adopted its rate discount of 1.5% for its primary default rate, BrightChoice, EBCE staff developed a comprehensive rates sheet that applied this 1.5% discount to all rates currently offered by PG&E that EBCE will start offering at launch. EBCE's Board of Directors approved these rates at its March 21, 2018 meeting, at which point EBCE loaded these rates into its billing engine that will be used as the basis for calculating EBCE customer's bills.

EBCE will also be offering a 100% Greenhouse Gas Free product at launch called Brilliant 100. The Brilliant 100 rates are equivalent to PG&E's standard rates.

Based on EBCE staff analysis, supported by NCPA's evaluation of EBCE's procurement, EBCE staff believes that all three conditions of JPA Section 7.1.3 (lower rates, higher renewables and higher GHG-free energy) will be met by EBCE at launch and throughout 2018

Attachments:

- Power Supply Procured and Recommended
- EBCE Rate Sheets



Staff Report Consent Item 5

TO: East Bay Community Energy Board of Directors

FROM: Nick Chaset, Chief Executive Officer

SUBJECT: Approval of EBCE Rate Sheets

DATE: March 21, 2018

Recommendation

Adopt a Resolution approving the rate sheets for the *Bright Choice* and *Brilliant 100* product services.

Background

PG&E recently published its updated rates for 2018, which took effect March 1. The rates are published on PG&E's tariff page, and provide a breakdown of the generation component of the charges for the various billing determinants used to calculate a PG&E bill.

During its February 7, 2018 meeting, the board approved overall discounts for both EBCE products, setting a discount of 1.5% for the *Bright Choice* service, and a discount of 0% for the *Brilliant 100* service, as compared to PG&E rates.

EBCE staff has compiled a list of all possible billing determinants by rate schedule, and has calculated the rates corresponding to each determinant for each rate schedule and each product, as listed in the attached rate sheet.

Analysis & Discussion

Rates were calculated for each determinant by requiring that the base EBCE rate plus system fees (PCIA & franchise fees) amount to 1.5% less than corresponding PG&E amounts for *Bright Choice*, and to 0% less for *Brilliant 100*.

Attachments

- A. Resolution
- B. Exhibit A - Rate Sheets

RESOLUTION NO. _____

**A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE EAST BAY COMMUNITY ENERGY AUTHORITY
APPROVING RATES FOR BRIGHT CHOICE AND BRILLIANT 100 PRODUCTS**

THE BOARD OF DIRECTORS OF THE EAST BAY COMMUNITY ENERGY AUTHORITY DOES HEREBY FIND, RESOLVE, AND ORDER AS FOLLOWS:

Section 1. The East Bay Community Energy Authority (“EBCE”) was formed on December 1, 2016, under the Joint Exercise of Power Act, California Government Code sections 6500 *et seq.*, among the County of Alameda, and the Cities of Albany, Berkeley, Castro Valley, Dublin, Emeryville, Fremont, Hayward, Livermore, Oakland, San Leandro, and Union City, to study, promote, develop, conduct, operate, and manage energy and energy-related climate change programs in all the member jurisdictions.

Section 2. At the February 7, 2018 Board of Directors regular meeting, the Board established the initial energy products to be provided by EBCE namely Bright Choice containing 85% carbon-free content and Brilliant 100 containing 100% carbon-free content.

Section 3. At the February 7, 2018 Board of Directors regular meeting, the Board also set a framework for establishing rates by benchmarking the rates off PG&E rates such that Bright Choice rates will be set at 1.5% below PG&E’s 2018 rates and Brilliant 100 rates will match PG&E’s 2018 rates.

Section 4. Based on the rates framework and PG&E’s 2018 rates, which were effective on March 1, 2018, the Board hereby establishes the rates for Bright Choice and Brilliant 100 as set forth in Exhibit A for Bright Choice and Brilliant 100.

Section 5. The Board reserves the right to modify the rates from time to time to stay competitive with PG&E rates and maintain the rates consistent with the previous framework or adopt a new framework. Any rates adjustment shall be made at a noticed public meeting.

ADOPTED AND APPROVED this _____ day of _____, 2018.

Scott Haggerty, Chair

ATTEST:

Stephanie Cabrera, Clerk of the Board



East Bay Community Energy Rate Sheets

Bright Choice

Rate	Billing Determinant Name	EBCE Rate	System Fees	Total Rate	PG&E 2018 Rate	Unit	Season
A1	Summer kWh	0.09853	0.02528	0.12381	0.1257	kWh	Summer
A1	Winter kWh	0.0599	0.02528	0.08518	0.08648	kWh	Winter
A10P	Max Demand Summer kW	4.6295	0	4.6295	4.7	kW	Summer
A10P	Summer kWh	0.07893	0.02568	0.10461	0.1062	kWh	Summer
A10P	Winter kWh	0.0559	0.02568	0.08158	0.08282	kWh	Winter
A10PX	Max Demand Summer kW	4.6295	0	4.6295	4.7	kW	Summer
A10PX	Off-Peak Summer kWh	0.05405	0.02568	0.07973	0.08094	kWh	Summer
A10PX	Off-Peak Winter kWh	0.05114	0.02568	0.07682	0.07799	kWh	Winter
A10PX	Part-Peak Summer kWh	0.08028	0.02568	0.10596	0.10757	kWh	Summer
A10PX	Part-Peak Winter kWh	0.06678	0.02568	0.09246	0.09387	kWh	Winter



Attachment 5A Exhibit A

A10PX	Peak Summer kWh	0.13008	0.02568	0.15576	0.15813	kWh	Summer
A10S	Max Demand Summer kW	5.32885	0	5.32885	5.41	kW	Summer
A10S	Summer kWh	0.08872	0.02568	0.1144	0.11614	kWh	Summer
A10S	Winter kWh	0.06214	0.02568	0.08782	0.08916	kWh	Winter
A10SX	Max Demand Summer kW	5.32885	0	5.32885	5.41	kW	Summer
A10SX	Off-Peak Summer kWh	0.05984	0.02568	0.08552	0.08682	kWh	Summer
A10SX	Off-Peak Winter kWh	0.05497	0.02568	0.08065	0.08188	kWh	Winter
A10SX	Part-Peak Summer kWh	0.08749	0.02568	0.11317	0.11489	kWh	Summer
A10SX	Part-Peak Winter kWh	0.07179	0.02568	0.09747	0.09895	kWh	Winter
A10SX	Peak Summer kWh	0.14179	0.02568	0.16747	0.17002	kWh	Summer
A10T	Max Demand Summer kW	3.63465	0	3.63465	3.69	kW	Summer
A10T	Summer kWh	0.06925	0.02568	0.09493	0.09638	kWh	Summer



Attachment 5B Exhibit A

A10T	Winter kWh	0.04926	0.02568	0.07494	0.07608	kWh	Winter
A10TX	Max Demand Summer kW	3.63465	0	3.63465	3.69	kW	Summer
A10TX	Off-Peak Summer kWh	0.04496	0.02568	0.07064	0.07172	kWh	Summer
A10TX	Off-Peak Winter kWh	0.04392	0.02568	0.0696	0.07066	kWh	Winter
A10TX	Part-Peak Summer kWh	0.06989	0.02568	0.09557	0.09703	kWh	Summer
A10TX	Part-Peak Winter kWh	0.05828	0.02568	0.08396	0.08524	kWh	Winter
A10TX	Peak Summer kWh	0.11606	0.02568	0.14174	0.1439	kWh	Summer
A15	Summer kWh	0.09853	0.02528	0.12381	0.1257	kWh	Summer
A15	Winter kWh	0.0599	0.02528	0.08518	0.08648	kWh	Winter
A1X	Off-Peak Summer kWh	0.06223	0.02528	0.08751	0.08884	kWh	Summer
A1X	Off-Peak Winter kWh	0.06837	0.02528	0.09365	0.09508	kWh	Winter
A1X	Part-Peak Summer kWh	0.08917	0.02528	0.11445	0.11619	kWh	Summer



Attachment 5B Exhibit A

A1X	Part-Peak Winter kWh	0.08898	0.02528	0.11426	0.116	kWh	Winter
A1X	Peak Summer kWh	0.11246	0.02528	0.13774	0.13984	kWh	Summer
A6	Off-Peak Summer kWh	0.0531	0.02528	0.07838	0.07957	kWh	Summer
A6	Off-Peak Winter kWh	0.06095	0.02528	0.08623	0.08754	kWh	Winter
A6	Part-Peak Summer kWh	0.11051	0.02528	0.13579	0.13786	kWh	Summer
A6	Part-Peak Winter kWh	0.07817	0.02528	0.10345	0.10503	kWh	Winter
A6	Peak Summer kWh	0.3465	0.02528	0.37178	0.37744	kWh	Summer
AG1A	Connected Load Summer kW	1.46765	0	1.46765	1.49	kW	Summer
AG1A	Summer kWh	0.08195	0.02516	0.10711	0.10874	kWh	Summer
AG1A	Winter kWh	0.06074	0.02516	0.0859	0.08721	kWh	Winter
AG1B	Max Demand Summer kW	2.2064	0	2.2064	2.24	kW	Summer
AG1B	Summer kWh	0.08514	0.02516	0.1103	0.11198	kWh	Summer



Attachment 5B Exhibit A

AG1B	Winter kWh	0.06082	0.02516	0.08598	0.08729	kWh	Winter
AG4A	Connected Load Summer kW	1.4578	0	1.4578	1.48	kW	Summer
AG4A	Off-Peak Summer kWh	0.04882	0.02516	0.07398	0.07511	kWh	Summer
AG4A	Off-Peak Winter kWh	0.04164	0.02516	0.0668	0.06782	kWh	Winter
AG4A	Part-Peak Winter kWh	0.05325	0.02516	0.07841	0.0796	kWh	Winter
AG4A	Peak Summer kWh	0.14622	0.02516	0.17138	0.17399	kWh	Summer
AG4B	Max Demand Summer kW	2.5807	0	2.5807	2.62	kW	Summer
AG4B	Max Peak Demand Summer kW	2.7383	0	2.7383	2.78	kW	Summer
AG4B	Off-Peak Summer kWh	0.05102	0.02516	0.07618	0.07734	kWh	Summer
AG4B	Off-Peak Winter kWh	0.03805	0.02516	0.06321	0.06417	kWh	Winter
AG4B	Part-Peak Winter kWh	0.04913	0.02516	0.07429	0.07542	kWh	Winter
AG4B	Peak Summer kWh	0.10609	0.02516	0.13125	0.13325	kWh	Summer



Attachment 5B Exhibit A

AG4C	Max Part-Peak Demand Summer kW	1.0835	0	1.0835	1.1	kW	Summer
AG4C	Max Peak Demand Summer kW	6.35325	0	6.35325	6.45	kW	Summer
AG4C	Off-Peak Summer kWh	0.03671	0.02516	0.06187	0.06281	kWh	Summer
AG4C	Off-Peak Winter kWh	0.03323	0.02516	0.05839	0.05928	kWh	Winter
AG4C	Part-Peak Summer kWh	0.06058	0.02516	0.08574	0.08705	kWh	Summer
AG4C	Part-Peak Winter kWh	0.04348	0.02516	0.06864	0.06969	kWh	Winter
AG4C	Peak Summer kWh	0.1263	0.02516	0.15146	0.15377	kWh	Summer
AG5A	Connected Load Summer kW	3.98925	0	3.98925	4.05	kW	Summer
AG5A	Off-Peak Summer kWh	0.05414	0.02516	0.0793	0.08051	kWh	Summer
AG5A	Off-Peak Winter kWh	0.04567	0.02516	0.07083	0.07191	kWh	Winter
AG5A	Part-Peak Winter kWh	0.0579	0.02516	0.08306	0.08432	kWh	Winter
AG5A	Peak Summer kWh	0.13523	0.02516	0.16039	0.16283	kWh	Summer



Attachment 5B Exhibit A

AG5B	Max Demand Summer kW	4.79695	0	4.79695	4.87	kW	Summer
AG5B	Max Peak Demand Summer kW	6.0085	0	6.0085	6.1	kW	Summer
AG5B	Off-Peak Summer kWh	0.02751	0.02516	0.05267	0.05347	kWh	Summer
AG5B	Off-Peak Winter kWh	0.01854	0.02516	0.0437	0.04437	kWh	Winter
AG5B	Part-Peak Winter kWh	0.04918	0.02516	0.07434	0.07547	kWh	Winter
AG5B	Peak Summer kWh	0.13149	0.02516	0.15665	0.15904	kWh	Summer
AG5C	Max Part-Peak Demand Summer kW	2.09805	0	2.09805	2.13	kW	Summer
AG5C	Max Peak Demand Summer kW	11.14035	0	11.14035	11.31	kW	Summer
AG5C	Off-Peak Summer kWh	0.02939	0.02516	0.05455	0.05538	kWh	Summer
AG5C	Off-Peak Winter kWh	0.02623	0.02516	0.05139	0.05217	kWh	Winter
AG5C	Part-Peak Summer kWh	0.04982	0.02516	0.07498	0.07612	kWh	Summer
AG5C	Part-Peak Winter kWh	0.03551	0.02516	0.06067	0.06159	kWh	Winter



Attachment 5B Exhibit A

AG5C	Peak Summer kWh	0.10469	0.02516	0.12985	0.13183	kWh	Summer
AGRA	Connected Load Summer kW	1.4184	0	1.4184	1.44	kW	Summer
AGRA	Off-Peak Summer kWh	0.04745	0.02516	0.07261	0.07372	kWh	Summer
AGRA	Off-Peak Winter kWh	0.04319	0.02516	0.06835	0.06939	kWh	Winter
AGRA	Part-Peak Winter kWh	0.05514	0.02516	0.0803	0.08152	kWh	Winter
AGRA	Peak Summer kWh	0.26314	0.02516	0.2883	0.29269	kWh	Summer
AGRB	Max Demand Summer kW	2.09805	0	2.09805	2.13	kW	Summer
AGRB	Max Peak Demand Summer kW	2.35415	0	2.35415	2.39	kW	Summer
AGRB	Off-Peak Summer kWh	0.04691	0.02516	0.07207	0.07317	kWh	Summer
AGRB	Off-Peak Winter kWh	0.03115	0.02516	0.05631	0.05717	kWh	Winter
AGRB	Part-Peak Winter kWh	0.04096	0.02516	0.06612	0.06713	kWh	Winter
AGRB	Peak Summer kWh	0.2352	0.02516	0.26036	0.26432	kWh	Summer



Attachment 5B Exhibit A

AGVA	Connected Load Summer kW	1.4775	0	1.4775	1.5	kW	Summer
AGVA	Off-Peak Summer kWh	0.04452	0.02516	0.06968	0.07074	kWh	Summer
AGVA	Off-Peak Winter kWh	0.04179	0.02516	0.06695	0.06797	kWh	Winter
AGVA	Part-Peak Winter kWh	0.05349	0.02516	0.07865	0.07985	kWh	Winter
AGVA	Peak Summer kWh	0.2271	0.02516	0.25226	0.2561	kWh	Summer
AGVB	Max Demand Summer kW	1.92075	0	1.92075	1.95	kW	Summer
AGVB	Max Peak Demand Summer kW	2.47235	0	2.47235	2.51	kW	Summer
AGVB	Off-Peak Summer kWh	0.04495	0.02516	0.07011	0.07118	kWh	Summer
AGVB	Off-Peak Winter kWh	0.03135	0.02516	0.05651	0.05737	kWh	Winter
AGVB	Part-Peak Winter kWh	0.04121	0.02516	0.06637	0.06738	kWh	Winter
AGVB	Peak Summer kWh	0.20778	0.02516	0.23294	0.23649	kWh	Summer
E1	Flat kWh	0.07217	0.03401	0.10618	0.1078	kWh	All



Attachment 5B Exhibit A

E19P	Max Part-Peak Demand Summer kW	2.96485	0	2.96485	3.01	kW	Summer
E19P	Max Peak Demand Summer kW	12.18445	0	12.18445	12.37	kW	Summer
E19P	Off-Peak Summer kWh	0.0359	0.02165	0.05755	0.05843	kWh	Summer
E19P	Off-Peak Winter kWh	0.04248	0.02165	0.06413	0.06511	kWh	Winter
E19P	Part-Peak Summer kWh	0.06253	0.02165	0.08418	0.08546	kWh	Summer
E19P	Part-Peak Winter kWh	0.05693	0.02165	0.07858	0.07978	kWh	Winter
E19P	Peak Summer kWh	0.10395	0.02165	0.1256	0.12751	kWh	Summer
E19PR	Off-Peak Summer kWh	0.0359	0.02165	0.05755	0.05843	kWh	Summer
E19PR	Off-Peak Winter kWh	0.04248	0.02165	0.06413	0.06511	kWh	Winter
E19PR	Part-Peak Summer kWh	0.09648	0.02165	0.11813	0.11993	kWh	Summer
E19PR	Part-Peak Winter kWh	0.05693	0.02165	0.07858	0.07978	kWh	Winter
E19PR	Peak Summer kWh	0.25214	0.02165	0.27379	0.27796	kWh	Summer



Attachment 5B Exhibit A

E19S	Max Part-Peak Demand Summer kW	3.3687	0	3.3687	3.42	kW	Summer
E19S	Max Peak Demand Summer kW	13.6521	0	13.6521	13.86	kW	Summer
E19S	Off-Peak Summer kWh	0.04121	0.02165	0.06286	0.06382	kWh	Summer
E19S	Off-Peak Winter kWh	0.0484	0.02165	0.07005	0.07112	kWh	Winter
E19S	Part-Peak Summer kWh	0.07019	0.02165	0.09184	0.09324	kWh	Summer
E19S	Part-Peak Winter kWh	0.06419	0.02165	0.08584	0.08715	kWh	Winter
E19S	Peak Summer kWh	0.11395	0.02165	0.1356	0.13766	kWh	Summer
E19SR	Off-Peak Summer kWh	0.04121	0.02165	0.06286	0.06382	kWh	Summer
E19SR	Off-Peak Winter kWh	0.0484	0.02165	0.07005	0.07112	kWh	Winter
E19SR	Part-Peak Summer kWh	0.10533	0.02165	0.12698	0.12891	kWh	Summer
E19SR	Part-Peak Winter kWh	0.06419	0.02165	0.08584	0.08715	kWh	Winter
E19SR	Peak Summer kWh	0.26497	0.02165	0.28662	0.29098	kWh	Summer



Attachment 5B Exhibit A

E19T	Max Part-Peak Demand Summer kW	3.47705	0	3.47705	3.53	kW	Summer
E19T	Max Peak Demand Summer kW	13.8491	0	13.8491	14.06	kW	Summer
E19T	Off-Peak Summer kWh	0.03528	0.02165	0.05693	0.0578	kWh	Summer
E19T	Off-Peak Winter kWh	0.0418	0.02165	0.06345	0.06442	kWh	Winter
E19T	Part-Peak Summer kWh	0.05389	0.02165	0.07554	0.07669	kWh	Summer
E19T	Part-Peak Winter kWh	0.0561	0.02165	0.07775	0.07893	kWh	Winter
E19T	Peak Summer kWh	0.06795	0.02165	0.0896	0.09096	kWh	Summer
E19TR	Off-Peak Summer kWh	0.03528	0.02165	0.05693	0.0578	kWh	Summer
E19TR	Off-Peak Winter kWh	0.0418	0.02165	0.06345	0.06442	kWh	Winter
E19TR	Part-Peak Summer kWh	0.09708	0.02165	0.11873	0.12054	kWh	Summer
E19TR	Part-Peak Winter kWh	0.0561	0.02165	0.07775	0.07893	kWh	Winter
E19TR	Peak Summer kWh	0.25106	0.02165	0.27271	0.27686	kWh	Summer



Attachment 5B Exhibit A

E20P	Max Part-Peak Demand Summer kW	3.4278	0	3.4278	3.48	kW	Summer
E20P	Max Peak Demand Summer kW	14.4992	0	14.4992	14.72	kW	Summer
E20P	Off-Peak Summer kWh	0.03854	0.01944	0.05798	0.05886	kWh	Summer
E20P	Off-Peak Winter kWh	0.04516	0.01944	0.0646	0.06558	kWh	Winter
E20P	Part-Peak Summer kWh	0.0655	0.01944	0.08494	0.08623	kWh	Summer
E20P	Part-Peak Winter kWh	0.05972	0.01944	0.07916	0.08037	kWh	Winter
E20P	Peak Summer kWh	0.10933	0.01944	0.12877	0.13073	kWh	Summer
E20PR	Off-Peak Summer kWh	0.03854	0.01944	0.05798	0.05886	kWh	Summer
E20PR	Off-Peak Winter kWh	0.04516	0.01944	0.0646	0.06558	kWh	Winter
E20PR	Part-Peak Summer kWh	0.09833	0.01944	0.11777	0.11956	kWh	Summer
E20PR	Part-Peak Winter kWh	0.05972	0.01944	0.07916	0.08037	kWh	Winter
E20PR	Peak Summer kWh	0.25862	0.01944	0.27806	0.28229	kWh	Summer



Attachment 5B Exhibit A

E20S	Max Part-Peak Demand Summer kW	3.26035	0	3.26035	3.31	kW	Summer
E20S	Max Peak Demand Summer kW	13.20885	0	13.20885	13.41	kW	Summer
E20S	Off-Peak Summer kWh	0.03803	0.02083	0.05886	0.05976	kWh	Summer
E20S	Off-Peak Winter kWh	0.04476	0.02083	0.06559	0.06659	kWh	Winter
E20S	Part-Peak Summer kWh	0.06533	0.02083	0.08616	0.08747	kWh	Summer
E20S	Part-Peak Winter kWh	0.05956	0.02083	0.08039	0.08161	kWh	Winter
E20S	Peak Summer kWh	0.10509	0.02083	0.12592	0.12784	kWh	Summer
E20SR	Off-Peak Summer kWh	0.03803	0.02083	0.05886	0.05976	kWh	Summer
E20SR	Off-Peak Winter kWh	0.04476	0.02083	0.06559	0.06659	kWh	Winter
E20SR	Part-Peak Summer kWh	0.09803	0.02083	0.11886	0.12067	kWh	Summer
E20SR	Part-Peak Winter kWh	0.05956	0.02083	0.08039	0.08161	kWh	Winter
E20SR	Peak Summer kWh	0.24033	0.02083	0.26116	0.26514	kWh	Summer



Attachment 5B Exhibit A

E20T	Max Part-Peak Demand Summer kW	4.08775	0	4.08775	4.15	kW	Summer
E20T	Max Peak Demand Summer kW	17.1587	0	17.1587	17.42	kW	Summer
E20T	Off-Peak Summer kWh	0.03566	0.01786	0.05352	0.05434	kWh	Summer
E20T	Off-Peak Winter kWh	0.04179	0.01786	0.05965	0.06056	kWh	Winter
E20T	Part-Peak Summer kWh	0.05315	0.01786	0.07101	0.07209	kWh	Summer
E20T	Part-Peak Winter kWh	0.05523	0.01786	0.07309	0.0742	kWh	Winter
E20T	Peak Summer kWh	0.06636	0.01786	0.08422	0.0855	kWh	Summer
E20TR	Off-Peak Summer kWh	0.03566	0.01786	0.05352	0.05434	kWh	Summer
E20TR	Off-Peak Winter kWh	0.04179	0.01786	0.05965	0.06056	kWh	Winter
E20TR	Part-Peak Summer kWh	0.09239	0.01786	0.11025	0.11193	kWh	Summer
E20TR	Part-Peak Winter kWh	0.05523	0.01786	0.07309	0.0742	kWh	Winter
E20TR	Peak Summer kWh	0.25166	0.01786	0.26952	0.27362	kWh	Summer



Attachment 5B Exhibit A

E37	Max Demand Summer kW	4.79695	0	4.79695	4.87	kW	Summer
E37	Max Peak Demand Summer kW	6.0085	0	6.0085	6.1	kW	Summer
E37	Off-Peak Summer kWh	0.02751	0.02516	0.05267	0.05347	kWh	Summer
E37	Off-Peak Winter kWh	0.01854	0.02516	0.0437	0.04437	kWh	Winter
E37	Part-Peak Winter kWh	0.04918	0.02516	0.07434	0.07547	kWh	Winter
E37	Peak Summer kWh	0.13149	0.02516	0.15665	0.15904	kWh	Summer
E6	Off-Peak Summer kWh	0.04364	0.03401	0.07765	0.07883	kWh	Summer
E6	Off-Peak Winter kWh	0.05634	0.03401	0.09035	0.09173	kWh	Winter
E6	Part-Peak Summer kWh	0.08901	0.03401	0.12302	0.12489	kWh	Summer
E6	Part-Peak Winter kWh	0.06882	0.03401	0.10283	0.1044	kWh	Winter
E6	Peak Summer kWh	0.20016	0.03401	0.23417	0.23774	kWh	Summer
ETOUA	Off-Peak Summer kWh	0.0792	0.03401	0.11321	0.11493	kWh	Summer



Attachment 5B Exhibit A

ETOUA	Off-Peak	Winter	kWh	0.05353	0.03401	0.08754	0.08887	kWh	Winter
ETOUA	Peak	Summer	kWh	0.15363	0.03401	0.18764	0.1905	kWh	Summer
ETOUA	Peak	Winter	kWh	0.0676	0.03401	0.10161	0.10316	kWh	Winter
ETOUB	Off-Peak	Summer	kWh	0.07367	0.03401	0.10768	0.10932	kWh	Summer
ETOUB	Off-Peak	Winter	kWh	0.05143	0.03401	0.08544	0.08674	kWh	Winter
ETOUB	Peak	Summer	kWh	0.17518	0.03401	0.20919	0.21238	kWh	Summer
ETOUB	Peak	Winter	kWh	0.06995	0.03401	0.10396	0.10554	kWh	Winter
ETOUC	Off-Peak	Summer	kWh	0.06745	0.03401	0.10146	0.10301	kWh	Summer
ETOUC	Off-Peak	Winter	kWh	0.05726	0.03401	0.09127	0.09266	kWh	Winter
ETOUC	Peak	Summer	kWh	0.12994	0.03401	0.16395	0.16645	kWh	Summer
ETOUC	Peak	Winter	kWh	0.07433	0.03401	0.10834	0.10999	kWh	Winter



Attachment 5B Exhibit A

ET0UP 1	Off-Peak Summer kWh	0.06178	0.03401	0.09579	0.09725	kWh	Summer
ET0UP 1	Off-Peak Winter kWh	0.03955	0.03401	0.07356	0.07468	kWh	Winter
ET0UP 1	Peak Summer kWh	0.1633	0.03401	0.19731	0.20031	kWh	Summer
ET0UP 1	Peak Winter kWh	0.05807	0.03401	0.09208	0.09348	kWh	Winter
ET0UP 2	Off-Peak Summer kWh	0.04833	0.03401	0.08234	0.08359	kWh	Summer
ET0UP 2	Off-Peak Winter kWh	0.03743	0.03401	0.07144	0.07253	kWh	Winter
ET0UP 2	Part-Peak Summer kWh	0.11967	0.03401	0.15368	0.15602	kWh	Summer
ET0UP 2	Peak Summer kWh	0.17965	0.03401	0.21366	0.21691	kWh	Summer
ET0UP 2	Peak Winter kWh	0.05716	0.03401	0.09117	0.09256	kWh	Winter
ET0UP 3	Off-Peak Spring kWh	0.03809	0.03401	0.0721	0.0732	kWh	Spring



Attachment 5B Exhibit A

ET0UP 3	Off-Peak Summer kWh	0.06207	0.03401	0.09608	0.09754	kWh	Summer
ET0UP 3	Off-Peak Winter kWh	0.04386	0.03401	0.07787	0.07906	kWh	Winter
ET0UP 3	Peak Spring kWh	0.05024	0.03401	0.08425	0.08553	kWh	Spring
ET0UP 3	Peak Summer kWh	0.16358	0.03401	0.19759	0.2006	kWh	Summer
ET0UP 3	Peak Winter kWh	0.06253	0.03401	0.09654	0.09801	kWh	Winter
ET0UP 3	Super-Off-Peak Spring kWh	0.01205	0.03401	0.04606	0.04676	kWh	Spring
EV	Off-Peak Summer kWh	0.02485	0.03401	0.05886	0.05976	kWh	Summer
EV	Off-Peak Winter kWh	0.02704	0.03401	0.06105	0.06198	kWh	Winter
EV	Part-Peak Summer kWh	0.08312	0.03401	0.11713	0.11891	kWh	Summer
EV	Part-Peak Winter kWh	0.02274	0.03401	0.05675	0.05761	kWh	Winter
EV	Peak Summer kWh	0.20903	0.03401	0.24304	0.24674	kWh	Summer



Attachment 5B Exhibit A

EV	Peak Winter kWh	0.05681	0.03401	0.09082	0.0922	kWh	Winter
LS	Flat kWh	0.07972	0.0065	0.08622	0.08753	kWh	All
STOUP	Off-Peak Summer kWh	0.05587	0.01246	0.06833	0.06937	kWh	Summer
STOUP	Off-Peak Winter kWh	0.06364	0.01246	0.0761	0.07726	kWh	Winter
STOUP	Part-Peak Summer kWh	0.07826	0.01246	0.09072	0.0921	kWh	Summer
STOUP	Part-Peak Winter kWh	0.08099	0.01246	0.09345	0.09487	kWh	Winter
STOUP	Peak Summer kWh	0.09537	0.01246	0.10783	0.10947	kWh	Summer
STOUP	Reservation Charge kW	0.4137	0	0.4137	0.42	kW	All
STOUS	Off-Peak Summer kWh	0.05587	0.01246	0.06833	0.06937	kWh	Summer
STOUS	Off-Peak Winter kWh	0.06364	0.01246	0.0761	0.07726	kWh	Winter
STOUS	Part-Peak Summer kWh	0.07826	0.01246	0.09072	0.0921	kWh	Summer
STOUS	Part-Peak Winter kWh	0.08099	0.01246	0.09345	0.09487	kWh	Winter



Attachment 5A Exhibit A

STOUS	Peak Summer kWh	0.09537	0.01246	0.10783	0.10947	kWh	Summer
STOUS	Reservation Charge kW	0.4137	0	0.4137	0.42	kW	All
STOUT	Off-Peak Summer kWh	0.04507	0.01246	0.05753	0.05841	kWh	Summer
STOUT	Off-Peak Winter kWh	0.05167	0.01246	0.06413	0.06511	kWh	Winter
STOUT	Part-Peak Summer kWh	0.06387	0.01246	0.07633	0.07749	kWh	Summer
STOUT	Part-Peak Winter kWh	0.0661	0.01246	0.07856	0.07976	kWh	Winter
STOUT	Peak Summer kWh	0.07808	0.01246	0.09054	0.09192	kWh	Summer
STOUT	Reservation Charge kW	0.34475	0	0.34475	0.35	kW	All
TC1	Flat kWh	0.08711	0.0065	0.09361	0.09504	kWh	All



Attachment 5B Exhibit A

Brilliant 100

Rate	Billing Determinant Name	EBCE Rate	System Fees	Total Rate	PG&E 2018 Rate	Unit	Season
A1	Summer kWh	0.10042	0.02528	0.1257	0.1257	kWh	Summer
A1	Winter kWh	0.0612	0.02528	0.08648	0.08648	kWh	Winter
A10P	Max Demand Summer kW	4.7	0	4.7	4.7	kW	Summer
A10P	Summer kWh	0.08052	0.02568	0.1062	0.1062	kWh	Summer
A10P	Winter kWh	0.05714	0.02568	0.08282	0.08282	kWh	Winter
A10PX	Max Demand Summer kW	4.7	0	4.7	4.7	kW	Summer
A10PX	Off-Peak Summer kWh	0.05526	0.02568	0.08094	0.08094	kWh	Summer
A10PX	Off-Peak Winter kWh	0.05231	0.02568	0.07799	0.07799	kWh	Winter
A10PX	Part-Peak Summer kWh	0.08189	0.02568	0.10757	0.10757	kWh	Summer



Attachment 5B Exhibit A

A10PX	Part-Peak Winter kWh	0.06819	0.02568	0.09387	0.09387	kWh	Winter
A10PX	Peak Summer kWh	0.13245	0.02568	0.15813	0.15813	kWh	Summer
A10S	Max Demand Summer kW	5.41	0	5.41	5.41	kW	Summer
A10S	Summer kWh	0.09046	0.02568	0.11614	0.11614	kWh	Summer
A10S	Winter kWh	0.06348	0.02568	0.08916	0.08916	kWh	Winter
A10SX	Max Demand Summer kW	5.41	0	5.41	5.41	kW	Summer
A10SX	Off-Peak Summer kWh	0.06114	0.02568	0.08682	0.08682	kWh	Summer
A10SX	Off-Peak Winter kWh	0.0562	0.02568	0.08188	0.08188	kWh	Winter
A10SX	Part-Peak Summer kWh	0.08921	0.02568	0.11489	0.11489	kWh	Summer
A10SX	Part-Peak Winter kWh	0.07327	0.02568	0.09895	0.09895	kWh	Winter
A10SX	Peak Summer kWh	0.14434	0.02568	0.17002	0.17002	kWh	Summer
A10T	Max Demand Summer kW	3.69	0	3.69	3.69	kW	Summer



Attachment 5B Exhibit A

A10T	Summer kWh	0.0707	0.02568	0.09638	0.09638	kWh	Summer
A10T	Winter kWh	0.0504	0.02568	0.07608	0.07608	kWh	Winter
A10TX	Max Demand Summer kW	3.69	0	3.69	3.69	kW	Summer
A10TX	Off-Peak Summer kWh	0.04604	0.02568	0.07172	0.07172	kWh	Summer
A10TX	Off-Peak Winter kWh	0.04498	0.02568	0.07066	0.07066	kWh	Winter
A10TX	Part-Peak Summer kWh	0.07135	0.02568	0.09703	0.09703	kWh	Summer
A10TX	Part-Peak Winter kWh	0.05956	0.02568	0.08524	0.08524	kWh	Winter
A10TX	Peak Summer kWh	0.11822	0.02568	0.1439	0.1439	kWh	Summer
A15	Summer kWh	0.10042	0.02528	0.1257	0.1257	kWh	Summer
A15	Winter kWh	0.0612	0.02528	0.08648	0.08648	kWh	Winter
A1X	Off-Peak Summer kWh	0.06356	0.02528	0.08884	0.08884	kWh	Summer
A1X	Off-Peak Winter kWh	0.0698	0.02528	0.09508	0.09508	kWh	Winter



Attachment 5B Exhibit A

A1X	Part-Peak Summer kWh	0.09091	0.02528	0.11619	0.11619	kWh	Summer
A1X	Part-Peak Winter kWh	0.09072	0.02528	0.116	0.116	kWh	Winter
A1X	Peak Summer kWh	0.11456	0.02528	0.13984	0.13984	kWh	Summer
A6	Off-Peak Summer kWh	0.05429	0.02528	0.07957	0.07957	kWh	Summer
A6	Off-Peak Winter kWh	0.06226	0.02528	0.08754	0.08754	kWh	Winter
A6	Part-Peak Summer kWh	0.11258	0.02528	0.13786	0.13786	kWh	Summer
A6	Part-Peak Winter kWh	0.07975	0.02528	0.10503	0.10503	kWh	Winter
A6	Peak Summer kWh	0.35216	0.02528	0.37744	0.37744	kWh	Summer
AG1A	Connected Load Summer kW	1.49	0	1.49	1.49	kW	Summer
AG1A	Summer kWh	0.08358	0.02516	0.10874	0.10874	kWh	Summer
AG1A	Winter kWh	0.06205	0.02516	0.08721	0.08721	kWh	Winter
AG1B	Max Demand Summer kW	2.24	0	2.24	2.24	kW	Summer



Attachment 5B Exhibit A

AG1B	Summer kWh	0.08682	0.02516	0.11198	0.11198	kWh	Summer
AG1B	Winter kWh	0.06213	0.02516	0.08729	0.08729	kWh	Winter
AG4A	Connected Load Summer kW	1.48	0	1.48	1.48	kW	Summer
AG4A	Off-Peak Summer kWh	0.04995	0.02516	0.07511	0.07511	kWh	Summer
AG4A	Off-Peak Winter kWh	0.04266	0.02516	0.06782	0.06782	kWh	Winter
AG4A	Part-Peak Winter kWh	0.05444	0.02516	0.0796	0.0796	kWh	Winter
AG4A	Peak Summer kWh	0.14883	0.02516	0.17399	0.17399	kWh	Summer
AG4B	Max Demand Summer kW	2.62	0	2.62	2.62	kW	Summer
AG4B	Max Peak Demand Summer kW	2.78	0	2.78	2.78	kW	Summer
AG4B	Off-Peak Summer kWh	0.05218	0.02516	0.07734	0.07734	kWh	Summer
AG4B	Off-Peak Winter kWh	0.03901	0.02516	0.06417	0.06417	kWh	Winter
AG4B	Part-Peak Winter kWh	0.05026	0.02516	0.07542	0.07542	kWh	Winter



Attachment 5B Exhibit A

AG4B	Peak Summer kWh	0.10809	0.02516	0.13325	0.13325	kWh	Summer
AG4C	Max Part-Peak Demand Summer kW	1.1	0	1.1	1.1	kW	Summer
AG4C	Max Peak Demand Summer kW	6.45	0	6.45	6.45	kW	Summer
AG4C	Off-Peak Summer kWh	0.03765	0.02516	0.06281	0.06281	kWh	Summer
AG4C	Off-Peak Winter kWh	0.03412	0.02516	0.05928	0.05928	kWh	Winter
AG4C	Part-Peak Summer kWh	0.06189	0.02516	0.08705	0.08705	kWh	Summer
AG4C	Part-Peak Winter kWh	0.04453	0.02516	0.06969	0.06969	kWh	Winter
AG4C	Peak Summer kWh	0.12861	0.02516	0.15377	0.15377	kWh	Summer
AG5A	Connected Load Summer kW	4.05	0	4.05	4.05	kW	Summer
AG5A	Off-Peak Summer kWh	0.05535	0.02516	0.08051	0.08051	kWh	Summer
AG5A	Off-Peak Winter kWh	0.04675	0.02516	0.07191	0.07191	kWh	Winter
AG5A	Part-Peak Winter kWh	0.05916	0.02516	0.08432	0.08432	kWh	Winter



Attachment 5B Exhibit A

AG5A	Peak Summer kWh	0.13767	0.02516	0.16283	0.16283	kWh	Summer
AG5B	Max Demand Summer kW	4.87	0	4.87	4.87	kW	Summer
AG5B	Max Peak Demand Summer kW	6.1	0	6.1	6.1	kW	Summer
AG5B	Off-Peak Summer kWh	0.02831	0.02516	0.05347	0.05347	kWh	Summer
AG5B	Off-Peak Winter kWh	0.01921	0.02516	0.04437	0.04437	kWh	Winter
AG5B	Part-Peak Winter kWh	0.05031	0.02516	0.07547	0.07547	kWh	Winter
AG5B	Peak Summer kWh	0.13388	0.02516	0.15904	0.15904	kWh	Summer
AG5C	Max Part-Peak Demand Summer kW	2.13	0	2.13	2.13	kW	Summer
AG5C	Max Peak Demand Summer kW	11.31	0	11.31	11.31	kW	Summer
AG5C	Off-Peak Summer kWh	0.03022	0.02516	0.05538	0.05538	kWh	Summer
AG5C	Off-Peak Winter kWh	0.02701	0.02516	0.05217	0.05217	kWh	Winter
AG5C	Part-Peak Summer kWh	0.05096	0.02516	0.07612	0.07612	kWh	Summer



Attachment 5B Exhibit A

AG5C	Part-Peak Winter kWh	0.03643	0.02516	0.06159	0.06159	kWh	Winter
AG5C	Peak Summer kWh	0.10667	0.02516	0.13183	0.13183	kWh	Summer
AGRA	Connected Load Summer kW	1.44	0	1.44	1.44	kW	Summer
AGRA	Off-Peak Summer kWh	0.04856	0.02516	0.07372	0.07372	kWh	Summer
AGRA	Off-Peak Winter kWh	0.04423	0.02516	0.06939	0.06939	kWh	Winter
AGRA	Part-Peak Winter kWh	0.05636	0.02516	0.08152	0.08152	kWh	Winter
AGRA	Peak Summer kWh	0.26753	0.02516	0.29269	0.29269	kWh	Summer
AGRB	Max Demand Summer kW	2.13	0	2.13	2.13	kW	Summer
AGRB	Max Peak Demand Summer kW	2.39	0	2.39	2.39	kW	Summer
AGRB	Off-Peak Summer kWh	0.04801	0.02516	0.07317	0.07317	kWh	Summer
AGRB	Off-Peak Winter kWh	0.03201	0.02516	0.05717	0.05717	kWh	Winter
AGRB	Part-Peak Winter kWh	0.04197	0.02516	0.06713	0.06713	kWh	Winter



Attachment 5B Exhibit A

AGRB	Peak Summer kWh	0.23916	0.02516	0.26432	0.26432	kWh	Summer
AGVA	Connected Load Summer kW	1.5	0	1.5	1.5	kW	Summer
AGVA	Off-Peak Summer kWh	0.04558	0.02516	0.07074	0.07074	kWh	Summer
AGVA	Off-Peak Winter kWh	0.04281	0.02516	0.06797	0.06797	kWh	Winter
AGVA	Part-Peak Winter kWh	0.05469	0.02516	0.07985	0.07985	kWh	Winter
AGVA	Peak Summer kWh	0.23094	0.02516	0.2561	0.2561	kWh	Summer
AGVB	Max Demand Summer kW	1.95	0	1.95	1.95	kW	Summer
AGVB	Max Peak Demand Summer kW	2.51	0	2.51	2.51	kW	Summer
AGVB	Off-Peak Summer kWh	0.04602	0.02516	0.07118	0.07118	kWh	Summer
AGVB	Off-Peak Winter kWh	0.03221	0.02516	0.05737	0.05737	kWh	Winter
AGVB	Part-Peak Winter kWh	0.04222	0.02516	0.06738	0.06738	kWh	Winter
AGVB	Peak Summer kWh	0.21133	0.02516	0.23649	0.23649	kWh	Summer



Attachment 5B Exhibit A

E1	Flat kWh	0.07379	0.03401	0.1078	0.1078	kWh	All
E19P	Max Part-Peak Demand Summer kW	3.01	0	3.01	3.01	kW	Summer
E19P	Max Peak Demand Summer kW	12.37	0	12.37	12.37	kW	Summer
E19P	Off-Peak Summer kWh	0.03678	0.02165	0.05843	0.05843	kWh	Summer
E19P	Off-Peak Winter kWh	0.04346	0.02165	0.06511	0.06511	kWh	Winter
E19P	Part-Peak Summer kWh	0.06381	0.02165	0.08546	0.08546	kWh	Summer
E19P	Part-Peak Winter kWh	0.05813	0.02165	0.07978	0.07978	kWh	Winter
E19P	Peak Summer kWh	0.10586	0.02165	0.12751	0.12751	kWh	Summer
E19PR	Off-Peak Summer kWh	0.03678	0.02165	0.05843	0.05843	kWh	Summer
E19PR	Off-Peak Winter kWh	0.04346	0.02165	0.06511	0.06511	kWh	Winter
E19PR	Part-Peak Summer kWh	0.09828	0.02165	0.11993	0.11993	kWh	Summer
E19PR	Part-Peak Winter kWh	0.05813	0.02165	0.07978	0.07978	kWh	Winter



Attachment 5B Exhibit A

E19PR	Peak Summer kWh	0.25631	0.02165	0.27796	0.27796	kWh	Summer
E19S	Max Part-Peak Demand Summer kW	3.42	0	3.42	3.42	kW	Summer
E19S	Max Peak Demand Summer kW	13.86	0	13.86	13.86	kW	Summer
E19S	Off-Peak Summer kWh	0.04217	0.02165	0.06382	0.06382	kWh	Summer
E19S	Off-Peak Winter kWh	0.04947	0.02165	0.07112	0.07112	kWh	Winter
E19S	Part-Peak Summer kWh	0.07159	0.02165	0.09324	0.09324	kWh	Summer
E19S	Part-Peak Winter kWh	0.0655	0.02165	0.08715	0.08715	kWh	Winter
E19S	Peak Summer kWh	0.11601	0.02165	0.13766	0.13766	kWh	Summer
E19SR	Off-Peak Summer kWh	0.04217	0.02165	0.06382	0.06382	kWh	Summer
E19SR	Off-Peak Winter kWh	0.04947	0.02165	0.07112	0.07112	kWh	Winter
E19SR	Part-Peak Summer kWh	0.10726	0.02165	0.12891	0.12891	kWh	Summer
E19SR	Part-Peak Winter kWh	0.0655	0.02165	0.08715	0.08715	kWh	Winter



Attachment 5B Exhibit A

E19SR	Peak Summer kWh	0.26933	0.02165	0.29098	0.29098	kWh	Summer
E19T	Max Part-Peak Demand Summer kW	3.53	0	3.53	3.53	kW	Summer
E19T	Max Peak Demand Summer kW	14.06	0	14.06	14.06	kW	Summer
E19T	Off-Peak Summer kWh	0.03615	0.02165	0.0578	0.0578	kWh	Summer
E19T	Off-Peak Winter kWh	0.04277	0.02165	0.06442	0.06442	kWh	Winter
E19T	Part-Peak Summer kWh	0.05504	0.02165	0.07669	0.07669	kWh	Summer
E19T	Part-Peak Winter kWh	0.05728	0.02165	0.07893	0.07893	kWh	Winter
E19T	Peak Summer kWh	0.06931	0.02165	0.09096	0.09096	kWh	Summer
E19TR	Off-Peak Summer kWh	0.03615	0.02165	0.0578	0.0578	kWh	Summer
E19TR	Off-Peak Winter kWh	0.04277	0.02165	0.06442	0.06442	kWh	Winter
E19TR	Part-Peak Summer kWh	0.09889	0.02165	0.12054	0.12054	kWh	Summer
E19TR	Part-Peak Winter kWh	0.05728	0.02165	0.07893	0.07893	kWh	Winter



Attachment 5B Exhibit A

E19TR	Peak Summer kWh	0.25521	0.02165	0.27686	0.27686	kWh	Summer
E20P	Max Part-Peak Demand Summer kW	3.48	0	3.48	3.48	kW	Summer
E20P	Max Peak Demand Summer kW	14.72	0	14.72	14.72	kW	Summer
E20P	Off-Peak Summer kWh	0.03942	0.01944	0.05886	0.05886	kWh	Summer
E20P	Off-Peak Winter kWh	0.04614	0.01944	0.06558	0.06558	kWh	Winter
E20P	Part-Peak Summer kWh	0.06679	0.01944	0.08623	0.08623	kWh	Summer
E20P	Part-Peak Winter kWh	0.06093	0.01944	0.08037	0.08037	kWh	Winter
E20P	Peak Summer kWh	0.11129	0.01944	0.13073	0.13073	kWh	Summer
E20PR	Off-Peak Summer kWh	0.03942	0.01944	0.05886	0.05886	kWh	Summer
E20PR	Off-Peak Winter kWh	0.04614	0.01944	0.06558	0.06558	kWh	Winter
E20PR	Part-Peak Summer kWh	0.10012	0.01944	0.11956	0.11956	kWh	Summer
E20PR	Part-Peak Winter kWh	0.06093	0.01944	0.08037	0.08037	kWh	Winter



Attachment 5A Exhibit A

E20PR	Peak Summer kWh	0.26285	0.01944	0.28229	0.28229	kWh	Summer
E20S	Max Part-Peak Demand Summer kW	3.31	0	3.31	3.31	kW	Summer
E20S	Max Peak Demand Summer kW	13.41	0	13.41	13.41	kW	Summer
E20S	Off-Peak Summer kWh	0.03893	0.02083	0.05976	0.05976	kWh	Summer
E20S	Off-Peak Winter kWh	0.04576	0.02083	0.06659	0.06659	kWh	Winter
E20S	Part-Peak Summer kWh	0.06664	0.02083	0.08747	0.08747	kWh	Summer
E20S	Part-Peak Winter kWh	0.06078	0.02083	0.08161	0.08161	kWh	Winter
E20S	Peak Summer kWh	0.10701	0.02083	0.12784	0.12784	kWh	Summer
E20SR	Off-Peak Summer kWh	0.03893	0.02083	0.05976	0.05976	kWh	Summer
E20SR	Off-Peak Winter kWh	0.04576	0.02083	0.06659	0.06659	kWh	Winter
E20SR	Part-Peak Summer kWh	0.09984	0.02083	0.12067	0.12067	kWh	Summer
E20SR	Part-Peak Winter kWh	0.06078	0.02083	0.08161	0.08161	kWh	Winter



Attachment 5B Exhibit A

E20SR	Peak Summer kWh	0.24431	0.02083	0.26514	0.26514	kWh	Summer
E20T	Max Part-Peak Demand Summer kW	4.15	0	4.15	4.15	kW	Summer
E20T	Max Peak Demand Summer kW	17.42	0	17.42	17.42	kW	Summer
E20T	Off-Peak Summer kWh	0.03648	0.01786	0.05434	0.05434	kWh	Summer
E20T	Off-Peak Winter kWh	0.0427	0.01786	0.06056	0.06056	kWh	Winter
E20T	Part-Peak Summer kWh	0.05423	0.01786	0.07209	0.07209	kWh	Summer
E20T	Part-Peak Winter kWh	0.05634	0.01786	0.0742	0.0742	kWh	Winter
E20T	Peak Summer kWh	0.06764	0.01786	0.0855	0.0855	kWh	Summer
E20TR	Off-Peak Summer kWh	0.03648	0.01786	0.05434	0.05434	kWh	Summer
E20TR	Off-Peak Winter kWh	0.0427	0.01786	0.06056	0.06056	kWh	Winter
E20TR	Part-Peak Summer kWh	0.09407	0.01786	0.11193	0.11193	kWh	Summer
E20TR	Part-Peak Winter kWh	0.05634	0.01786	0.0742	0.0742	kWh	Winter



Attachment 5B Exhibit A

E20TR	Peak Summer kWh	0.25576	0.01786	0.27362	0.27362	kWh	Summer
E37	Max Demand Summer kW	4.87	0	4.87	4.87	kW	Summer
E37	Max Peak Demand Summer kW	6.1	0	6.1	6.1	kW	Summer
E37	Off-Peak Summer kWh	0.02831	0.02516	0.05347	0.05347	kWh	Summer
E37	Off-Peak Winter kWh	0.01921	0.02516	0.04437	0.04437	kWh	Winter
E37	Part-Peak Winter kWh	0.05031	0.02516	0.07547	0.07547	kWh	Winter
E37	Peak Summer kWh	0.13388	0.02516	0.15904	0.15904	kWh	Summer
E6	Off-Peak Summer kWh	0.04482	0.03401	0.07883	0.07883	kWh	Summer
E6	Off-Peak Winter kWh	0.05772	0.03401	0.09173	0.09173	kWh	Winter
E6	Part-Peak Summer kWh	0.09088	0.03401	0.12489	0.12489	kWh	Summer
E6	Part-Peak Winter kWh	0.07039	0.03401	0.1044	0.1044	kWh	Winter
E6	Peak Summer kWh	0.20373	0.03401	0.23774	0.23774	kWh	Summer



Attachment 5B Exhibit A

ETOUA	Off-Peak Summer kWh	0.08092	0.03401	0.11493	0.11493	kWh	Summer
ETOUA	Off-Peak Winter kWh	0.05486	0.03401	0.08887	0.08887	kWh	Winter
ETOUA	Peak Summer kWh	0.15649	0.03401	0.1905	0.1905	kWh	Summer
ETOUA	Peak Winter kWh	0.06915	0.03401	0.10316	0.10316	kWh	Winter
ETOURB	Off-Peak Summer kWh	0.07531	0.03401	0.10932	0.10932	kWh	Summer
ETOURB	Off-Peak Winter kWh	0.05273	0.03401	0.08674	0.08674	kWh	Winter
ETOURB	Peak Summer kWh	0.17837	0.03401	0.21238	0.21238	kWh	Summer
ETOURB	Peak Winter kWh	0.07153	0.03401	0.10554	0.10554	kWh	Winter
ETOUUC3	Off-Peak Summer kWh	0.069	0.03401	0.10301	0.10301	kWh	Summer
ETOUUC3	Off-Peak Winter kWh	0.05865	0.03401	0.09266	0.09266	kWh	Winter
ETOUUC3	Peak Summer kWh	0.13244	0.03401	0.16645	0.16645	kWh	Summer
ETOUUC3	Peak Winter kWh	0.07598	0.03401	0.10999	0.10999	kWh	Winter



Attachment 5B Exhibit A

EToup1	Off-Peak Summer kWh	0.06324	0.03401	0.09725	0.09725	kWh	Summer
EToup1	Off-Peak Winter kWh	0.04067	0.03401	0.07468	0.07468	kWh	Winter
EToup1	Peak Summer kWh	0.1663	0.03401	0.20031	0.20031	kWh	Summer
EToup1	Peak Winter kWh	0.05947	0.03401	0.09348	0.09348	kWh	Winter
EToup2	Off-Peak Summer kWh	0.04958	0.03401	0.08359	0.08359	kWh	Summer
EToup2	Off-Peak Winter kWh	0.03852	0.03401	0.07253	0.07253	kWh	Winter
EToup2	Part-Peak Summer kWh	0.12201	0.03401	0.15602	0.15602	kWh	Summer
EToup2	Peak Summer kWh	0.1829	0.03401	0.21691	0.21691	kWh	Summer
EToup2	Peak Winter kWh	0.05855	0.03401	0.09256	0.09256	kWh	Winter
EToup3	Off-Peak Spring kWh	0.03919	0.03401	0.0732	0.0732	kWh	Spring
EToup3	Off-Peak Summer kWh	0.06353	0.03401	0.09754	0.09754	kWh	Summer
EToup3	Off-Peak Winter kWh	0.04505	0.03401	0.07906	0.07906	kWh	Winter



Attachment 5B Exhibit A

ETOUP3	Peak Spring kWh	0.05152	0.03401	0.08553	0.08553	kWh	Spring
ETOUP3	Peak Summer kWh	0.16659	0.03401	0.2006	0.2006	kWh	Summer
ETOUP3	Peak Winter kWh	0.064	0.03401	0.09801	0.09801	kWh	Winter
ETOUP3	Super-Off-Peak Spring kWh	0.01275	0.03401	0.04676	0.04676	kWh	Spring
EV	Off-Peak Summer kWh	0.02575	0.03401	0.05976	0.05976	kWh	Summer
EV	Off-Peak Winter kWh	0.02797	0.03401	0.06198	0.06198	kWh	Winter
EV	Part-Peak Summer kWh	0.0849	0.03401	0.11891	0.11891	kWh	Summer
EV	Part-Peak Winter kWh	0.0236	0.03401	0.05761	0.05761	kWh	Winter
EV	Peak Summer kWh	0.21273	0.03401	0.24674	0.24674	kWh	Summer
EV	Peak Winter kWh	0.05819	0.03401	0.0922	0.0922	kWh	Winter
LS	Flat kWh	0.08103	0.0065	0.08753	0.08753	kWh	All
STOUP	Off-Peak Summer kWh	0.05691	0.01246	0.06937	0.06937	kWh	Summer



Attachment 5B Exhibit A

STOUP	Off-Peak Winter kWh	0.0648	0.01246	0.07726	0.07726	kWh	Winter
STOUP	Part-Peak Summer kWh	0.07964	0.01246	0.0921	0.0921	kWh	Summer
STOUP	Part-Peak Winter kWh	0.08241	0.01246	0.09487	0.09487	kWh	Winter
STOUP	Peak Summer kWh	0.09701	0.01246	0.10947	0.10947	kWh	Summer
STOUP	Reservation Charge kW	0.42	0	0.42	0.42	kW	All
STOUS	Off-Peak Summer kWh	0.05691	0.01246	0.06937	0.06937	kWh	Summer
STOUS	Off-Peak Winter kWh	0.0648	0.01246	0.07726	0.07726	kWh	Winter
STOUS	Part-Peak Summer kWh	0.07964	0.01246	0.0921	0.0921	kWh	Summer
STOUS	Part-Peak Winter kWh	0.08241	0.01246	0.09487	0.09487	kWh	Winter
STOUS	Peak Summer kWh	0.09701	0.01246	0.10947	0.10947	kWh	Summer
STOUS	Reservation Charge kW	0.42	0	0.42	0.42	kW	All
STOUT	Off-Peak Summer kWh	0.04595	0.01246	0.05841	0.05841	kWh	Summer



Attachment 5B Exhibit A

STOUT	Off-Peak Winter kWh	0.05265	0.01246	0.06511	0.06511	kWh	Winter
STOUT	Part-Peak Summer kWh	0.06503	0.01246	0.07749	0.07749	kWh	Summer
STOUT	Part-Peak Winter kWh	0.0673	0.01246	0.07976	0.07976	kWh	Winter
STOUT	Peak Summer kWh	0.07946	0.01246	0.09192	0.09192	kWh	Summer
STOUT	Reservation Charge kW	0.35	0	0.35	0.35	kW	All
TC1	Flat kWh	0.08854	0.0065	0.09504	0.09504	kWh	All



Attachment 5B Exhibit A

Rate Schedule Map

Rate Schedule	Rate Family	Rate Class
AG1A	AG1A	Agricultural
AG1B	AG1B	Agricultural
AG4A	AG4A	Agricultural
AG4B	AG4B	Agricultural
AG4C	AG4C	Agricultural
AG4D	AG4A	Agricultural
AG4E	AG4B	Agricultural
AG4F	AG4C	Agricultural
AG5A	AG5A	Agricultural
AG5B	AG5B	Agricultural
AG5C	AG5C	Agricultural
AG5D	AG5A	Agricultural
AG5E	AG5B	Agricultural
AG5F	AG5C	Agricultural
AGICE	AGICE	Agricultural
AGRA	AGRA	Agricultural
AGRB	AGRB	Agricultural
AGRD	AGRA	Agricultural
AGRE	AGRB	Agricultural
AGVA	AGVA	Agricultural
AGVB	AGVB	Agricultural
AGVD	AGVA	Agricultural
AGVE	AGVB	Agricultural
E20P	E20P	Large Commercial
E20PR	E20PR	Large Commercial

E20S	E20S	Large Commercial
E20SR	E20SR	Large Commercial
E20T	E20T	Large Commercial
E20TR	E20TR	Large Commercial
LS1	LS	Lights
LS2	LS	Lights
LS3	LS	Lights
OL1	LS	Lights
TC1	TC1	Lights
A10P	A10P	Medium Commercial
A10PL	A10P	Medium Commercial
A10PX	A10PX	Medium Commercial
A10S	A10S	Medium Commercial
A10SL	A10S	Medium Commercial
A10SX	A10SX	Medium Commercial
A10T	A10T	Medium Commercial
A10TL	A10T	Medium Commercial
A10TX	A10TX	Medium Commercial
E19P	E19P	Medium Commercial
E19PR	E19PR	Medium Commercial
E19PV	E19P	Medium Commercial
E19S	E19S	Medium Commercial
E19SR	E19SR	Medium Commercial
E19SV	E19S	Medium Commercial
E19T	E19T	Medium Commercial
E19TR	E19TR	Medium Commercial
E19TV	E19T	Medium Commercial
E37	E37	Medium Commercial



Attachment 5B Exhibit A

E1	E1	Residential
E1L	E1	Residential
E1M	E1	Residential
E1ML	E1	Residential
E6	E6	Residential
E6L	E6	Residential
ELTOUC3	ETOU3	Residential
EM	E1	Residential
EML	E1	Residential
EMLTOU	E6	Residential
EMTOU	E6	Residential
ES	E1	Residential
ESL	E1	Residential
ESR	E1	Residential
ESRL	E1	Residential
ET	E1	Residential
ETL	E1	Residential
ETOUA	ETOUA	Residential
ETOUAL	ETOUA	Residential
ETOUB	ETOUB	Residential
ETOUBL	ETOUB	Residential

ETOU3	ETOU3	Residential
ETOU1	ETOU1	Residential
ETOU1L	ETOU1	Residential
ETOU2	ETOU2	Residential
ETOU2L	ETOU2	Residential
ETOU3	ETOU3	Residential
ETOU3L	ETOU3	Residential
EVA	EV	Residential
EVB	EV	Residential
A1	A1	Small Commercial
A15	A15	Small Commercial
A1L	A1	Small Commercial
A1X	A1X	Small Commercial
A6	A6	Small Commercial
STOUP	STOUP	Standby
STOUS	STOUS	Standby
STOUT	STOUT	Standby



Schedule of Fees and Surcharges

Class	2018 PCIA (\$/kWh)	2018 Franchise (\$/kWh)	Sum (\$/kWh)
All Residential	0.03346	0.00055	0.03401
A1	0.02466	0.00062	0.02528
A10	0.02502	0.00066	0.02568
E19	0.02104	0.00061	0.02165
Street	0.00589	0.00061	0.0065
Standby	0.01196	0.0005	0.01246
Agricultural	0.02463	0.00053	0.02516
E20T	0.01735	0.00051	0.01786
E20P	0.01888	0.00056	0.01944
E20S	0.02025	0.00058	0.02083



Adjustments and Discounts

Adjustment	Rate	Amount
Primary Voltage Discount - Max Demand Summer	AG1B	\$ (0.83)
Primary Voltage Discount - Max Demand Summer	AG4B	\$ (0.65)
Primary Voltage Discount - Max Peak Demand Summer	AG4C	\$ (1.12)
Transmission Voltage Discount - Max Peak Demand Summer	AG4C	\$ (2.06)
Transmission Voltage Discount - Max Part-Peak Demand Summer	AG4C	\$ 0.02
Primary Voltage Discount - Max Demand Summer	AG5B	\$ (1.53)
Transmission Voltage Discount - Max Demand Summer	AG5B	\$ (2.66)
Primary Voltage Discount - Max Peak Demand Summer	AG5C	\$ (2.33)
Transmission Voltage Discount - Max Peak Demand Summer	AG5C	\$ (4.36)
Primary Voltage Discount - Max Demand Summer	AGRB	\$ (0.54)
Primary Voltage Discount - Max Demand Summer	AGVB	\$ (0.57)
Primary Voltage Discount - Max Demand Summer	E37	\$ (1.53)
Transmission Voltage Discount - Max Demand Summer	E37	\$ (2.66)
NEM Generation - Bonus Credit	New NEM	\$ 0.01
NEM Generation - Bonus Credit	Muni/Low Income NEM	\$ 0.01



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Power Supply Procured and Recommended

Date: April 26, 2018
To: Nick Chaset; Executive Director
From: Ken Goeke; Manager, Pooling and Portfolio Administration
Subject: **EBCE Power Supply Procured and Recommended**

East Bay Community Energy (EBCE) is scheduled to begin supplying reliable and cost effective electric service to its customers in June 2018. Northern California Power Agency (NCPA) has worked with EBCE to implement the power supply procurement and hedging strategy put into place March 16, 2018. The implementation has moved EBCE towards its goals of: (i) providing cost effective electric service to its customer, (ii) optimizing the value of its supply portfolio, and (iii) satisfying various regulatory requirements (including Renewable Portfolio Standards (RPS)). Inherent in these goals is the need to manage risks related to transacting energy, capacity, RPS and carbon free energy related products based on the policies and requirements established by EBCE. Given these considerations, along with others, NCPA provides the following recap of power products to be procured by EBCE.

Note: This memo is a recap of expected transactions and resulting supply portfolio. The estimates provided here are not a comparison of EBCE's portfolio supply to that of the host utility. As such, it is not meant to comply with Section 7.1.3 of ECBE's Joint Powers Agreement. All estimates of forecasted loads by their very nature are subject to error and cannot be guaranteed as final results. All supplies estimates are a function NCPA's knowledge gained from its historical transactions of energy products. The influx of additional Community Choice Aggregators (CCAs) into the market may increase the price and decreased availability of some energy products.

Risk Management Strategies

EBCE is in the process of purchasing 2018 energy supplies which mitigate exposure to market price volatility risk and brings EBCE into compliance with its recommended coverage ratios provided in Table 1 (Time-Price Coverage Matrix).

Table 1: Time-Price Coverage Matrix

Months to Delivery		Price Matrix Percentile						
		>60%	60%	50%	40%	25%	10%	<10%
		Covered Position as a % of Forecasted Load						
0+	3	80%	80%	85%	85%	90%	90%	100%
3+	6	70%	70%	75%	80%	80%	90%	100%
6+	9	70%	70%	75%	80%	80%	80%	90%
9+	12	60%	60%	70%	80%	80%	80%	90%
12+		60%	60%	70%	80%	80%	80%	90%

Renewable Portfolio Content and Carbon Free Product Procurement

EBCE has issued a request for proposal from market supplies for RPS products with a due date of May 2, 2018 and has a planned request for proposals for CO2-free products soon thereafter. These planned purchases, along with subsequent procurement through the year, will result in an RPS portfolio of over 38% RPS eligible energy and over 48% non-RPS eligible carbon-free energy, for a total portfolio of over 86% carbon-free energy, which is higher than that required by California's legislation. Table 2 shows an estimate of EBCE's expected RPS and CO-2 free purchases through the course of 2018.

Table 2: Estimated EBCE's RPS and Carbon Free Policy Portfolio 2018

Year	Total Retail MWh	RPS MWh	CO2 Free MWh
2018	2,210,909	845,395	1,073,250
% Retail MWh	86.8%	38.2%	48.5%

The relationship between EBCE’s Time-Price Coverage Matrix and its RPS and Carbon-free energy portfolio primarily has to do with the timing of when to make energy purchases. For the purposes of EBCE’s energy procurement in 2018, the Matrix suggests that EBCE purchase between 70% and 100% of the RPS and Carbon-free it needs over the coming month and then fill in the remaining quantities over the subsequent months. Between EBCE’s planned May procurement of RPS and Carbon-free energy, and transactions for blocks of on and off-peak energy, EBCE has hedged over 92% of its energy needs for June 2018, falling to 76.9% for December.

Table 3: Current Energy Coverage

Year	Month	Coverage Ratio
2018	6	92.8%
2018	7	82.6%
2018	8	81.7%
2018	9	81.3%
2018	10	76.9%
2018	11	76.6%
2018	12	76.9%