



DATE: May 10, 2021
TO: Council Sustainability Committee
FROM: Director of Public Works
SUBJECT Default Electricity Product from East Bay Community Energy

RECOMMENDATION

That the Council Sustainability Committee (CSC) reviews and comments on this report and provides a recommendation to Council for a new default product to take effect January 1, 2022.

SUMMARY

When East Bay Community Energy (EBCE) launched in 2018, Council chose Brilliant 100 (100% carbon free electricity) as the default electricity product for Hayward. In 2020, when it appeared that Brilliant 100 would no longer be offered, Council provided its ranked choices for a replacement. Council's top choice was to maintain Brilliant 100 with a subsidy and Council's second choice was to make Renewable 100 the default. The EBCE Board extended Brilliant 100 for one more year, but it will not be offered as of January 1, 2022. Staff is seeking a recommendation from the CSC for a new default product for the community, to be effective January 1, 2022. Staff has identified the following three options for the CSC's consideration:

1. Renewable 100 as the default for all customers (residential and commercial) with the exception of residential customers that receive income or medical-related discounts. This option would maximize greenhouse gas (GHG) reductions, but would result in rate increases for most customers.
2. Renewable 100 as the default for non-discounted residential customers. Commercial customers would move to Bright Choice. This option would cause Hayward's GHG emissions to increase and would result in rate increases only for residential customers that do not receive income-qualified or medical-related discounts. Commercial customers would default to Bright Choice and would experience a small decrease in rates.
3. Bright Choice as the default for all customers. This option would cause the largest increase in Hayward's GHG emissions and would result in a small rate decrease for most customers.

BACKGROUND

EBCE formed in 2016 as a joint powers authority to provide cleaner, greener energy at lower rates to Alameda County customers. EBCE started providing electricity to commercial and municipal accounts in June 2018 and to residential customers in November 2018. Information about EBCE is available on their website¹. Staff has provided many reports about EBCE to the CSC and Council, all of which are available on the City's website².

When EBCE launched in 2018, three electricity products were offered:

- Bright Choice – The default for most communities. At the time, the rates were 1.5% lower than PG&E rates.
- Brilliant 100 – 100% carbon free electricity (40% renewable and 60% large hydro-electric) at rates equal to PG&E.
- Renewable 100 – 100% renewable electricity for one penny per kWh more than PG&E rates.

On March 6, 2018, Council voted to designate Brilliant 100 as the default electricity product for nonresidential customers in Hayward. Non-residential accounts and municipal accounts began receiving EBCE service in June 2018. On May 22, 2018, Council adopted a resolution designating Brilliant 100 as the default electricity product for Hayward's residential customers. Residential accounts began receiving EBCE service in November 2018. Council chose Brilliant 100 as the default because it would help Hayward meet its GHG emissions reduction goals and because Hayward customers would experience no change in the cost of their electricity.

There are approximately 48,000 residential accounts in Hayward, including approximately 17,000 (about 35%) customers enrolled in one or more discount programs including California Alternate Rates for Energy (CARE), Family Electric Rate Assistance (FERA), and medical baseline. The CARE and FERA programs offer discounts to income-qualified customers. Medical Baseline customers pay special rates due to equipment or heating/cooling needs related to medical conditions. All EBCE customers who were enrolled in CARE, FERA, or Medical Baseline have remained enrolled in these discount programs after the switch to EBCE and they have been enrolled in Bright Choice.

On June 16, 2020³, Council introduced and on June 23, 2020⁴, Council adopted an ordinance amending Hayward's Climate Action Plan and General Plan to include the following goals:

- reduce emissions by 20% below 2005 levels by 2020
- reduce emissions by 30% below 2005 levels by 2025
- reduce emissions by 55% below 2005 levels by 2030
- work with the community to develop a plan that may result in the reduction of community based GHG emissions to achieve carbon neutrality by 2045.

¹ <https://ebce.org/>

² <https://www.hayward-ca.gov/your-government/departments/utilities-environmental-services/east-bay-community-energy>

³ <https://hayward.legistar.com/LegislationDetail.aspx?ID=4568609&GUID=46FF5863-9294-4217-9119-9631D7A2BB6F&Options=&Search=>

⁴ <https://hayward.legistar.com/LegislationDetail.aspx?ID=4576651&GUID=4E2F5527-D216-4472-BB79-5D9A37A41AE8&Options=&Search=>

On July 13, 2020⁵, the CSC received a report outlining the financial challenges experienced by EBCE and the reasons why Brilliant 100 may be discontinued. On July 14, 2020⁶, Council discussed Hayward's options for a new default product.

On October 15, 2020, the CSC considered the options provided by EBCE and offered rankings for Council's consideration. On November 10, 2020, Council was provided with the following options for the default product for the Hayward community:

1. Brilliant 100 with subsidy
2. 100% carbon free product including nuclear to expire at the end of 2022
3. Brilliant 100 with rate increase
4. Bright Choice
5. Renewable 100

Council provided the following ranked preferences:

1. Brilliant 100 with subsidy
2. Renewable 100
3. Brilliant 100 with potential rate increase

On November 18, 2020, the EBCE Board voted to maintain Brilliant 100 cost at parity with PG&E rates for 2021, but close Brilliant 100 effective January 1, 2022. Keeping Brilliant 100 at cost parity with PG&E rates for 2021 required EBCE to subsidize the product. In late 2020, the subsidy was estimated to be more than \$3 million. EBCE indicated the subsidy would come from ratepayers who are enrolled in Bright Choice and that the subsidy reduces the funding available for local development projects such as the development of new local renewable energy generation.

On January 11, 2021⁷, the CSC received a report on Hayward's 2019 GHG Inventory showing that overall emissions had been reduced by 25.7% since 2005. The report noted that Hayward's goal of a 20% reduction by 2020 had been reached two years early, due in part to Hayward customers receiving Brilliant 100 electricity. Electricity emissions in 2019 were 93% below 2005 levels. While EBCE launched in 2018, 2019 was the first full year Hayward customers were enrolled in EBCE with Brilliant 100 as the default product.

DISCUSSION

The Brilliant 100 product will no longer be offered after December 31, 2021. The City's choices for a new default product that will take effect in January 2022 are much more limited. The current choices are Renewable 100 and Bright Choice. Renewable 100 is sourced from 50% solar and 50% wind from California and has rates that are 3 to 6% more than PG&E rates (a \$0.01/kWh premium). In 2021, Bright Choice has a minimum of 41% renewable energy and is priced at 1% less than PG&E rates. In comparison, in 2020 PG&E reported a renewable content of approximately 36% and an overall carbon-free content of approximately 88%.

⁵ <https://hayward.legistar.com/LegislationDetail.aspx?ID=4590667&GUID=656BE636-73B2-4D83-AD63-79E8C5B8B5C2&Options=&Search=>

⁶ <https://hayward.legistar.com/LegislationDetail.aspx?ID=4590672&GUID=90E5FCBF-BB73-46C6-9492-7C526C953EBB&Options=&Search=>

⁷ <https://hayward.legistar.com/LegislationDetail.aspx?ID=4747797&GUID=2B1F0C6F-B961-4AA3-9553-240ACE74B4B1&Options=&Search=>

Rates – The differences in rates are provided later in the Economic Impact section of this report. If Bright Choice is chosen as the new default product, most customers will see a small decrease in their cost of electricity. The generation rate for Bright Choice is 1% less than the generation rate for PG&E rates. The overall monthly savings would range from 0.4 to 0.6% with the average residential account saving \$0.46 on their overall monthly cost of electricity.

If Renewable 100 is chosen as the default, customers would see an increase in their cost of electricity. The generation rate for Renewable 100 is \$0.01/kWh more than the generation rate for PG&E rates. The overall monthly increase for most customers would range from 3.5 to 5.1% with the average residential account paying an additional \$4.11 on their overall cost of electricity.

If Renewable 100 is chosen, CARE, FERA and Medical Baseline customers could remain enrolled in Bright Choice. Approximately 35% of Hayward’s residential customers receive CARE, FERA or Medical Baseline discounts. There are likely many more customers that are eligible for CARE/FERA/Medical Baseline, but they may be unaware of the programs and have not subscribed. There are also many residential customers that are just above the income thresholds for CARE and FERA so they do not qualify for the discount, but they may still experience financial challenges. Even for residential and commercial customers who have managed to maintain their income during the pandemic, there may be some who will argue that the general current conditions make this the wrong time to increase rates. Customers would have the opportunity to opt down to Bright Choice, but it is possible that some customers would express their displeasure by opting out of EBCE entirely.

Power Content for Bright Choice – As shown in Figure 1, Bright Choice was 85% carbon free in 2019 (60% renewable, 25% large hydro, 13% unspecified, and 1.5% nuclear⁸). The Power Content Label for 2020 is not yet available.

⁸ The 1.5% nuclear identified in the 2019 *Bright Choice* energy supply is due to EBCE's contracts with Asset Controlling Suppliers (ACS), the vast majority of which involve large hydroelectric resources from the Pacific Northwest. Generally, ACS resources are not traceable to a specific individual facility as they manage "fleets" of hydroelectric dams. Since there are also nuclear power plants in the area, a very small percentage (i.e., ~1%) of nuclear power was required to be included by the most recent reporting guidelines. EBCE has not contracted for any unit-specific nuclear resources.

Figure 1. EBCE 2019 Power Content Label

East Bay Community Energy · 2019 Power Content Label · ebce.org/documents-and-resources				
Energy Resources	Renewable 100	Brilliant 100	Bright Choice	2019 CA Power Mix
Eligible Renewable¹	100.0%	75.0%	59.9%	31.7%
Biomass & Biowaste	0.0%	0.0%	3.6%	2.4%
Geothermal	0.0%	0.0%	12.3%	4.8%
Eligible Hydroelectric	0.0%	0.0%	4.9%	2.0%
Solar	50.0%	37.5%	3.5%	12.3%
Wind	50.0%	37.5%	35.7%	10.2%
Coal	0.0%	0.0%	0.0%	3.0%
Large Hydroelectric	0.0%	25.0%	25.3%	14.6%
Natural Gas	0.0%	0.0%	0.1%	34.2%
Nuclear	0.0%	0.0%	1.5%	9.0%
Other	0.0%	0.0%	0.2%	0.2%
Unspecified sources of power²	0.0%	0.0%	13.1%	7.3%
TOTAL	100%	100%	100%	100%
Percentage of Retail Sales Covered by Retired Unbundled RECs³	0.0%	0.0%	0.0%	0.0%

¹ The eligible renewable percentage above does not reflect RPS compliance, which is determined using a different methodology.
² Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.
³ Renewable energy credits (RECs) are tracking instruments issued for renewable generation. Unbundled renewable energy credits (RECs) represent renewable generation that was not delivered to serve retail sales. Unbundled RECs are not reflected in the power mix or GHG emissions intensities above.

In April 2020, when considering whether or not to include nuclear in EBCE’s portfolio, the EBCE Board decided to focus on renewables rather than carbon free content. The Board decided to maintain Bright Choice with a minimum of 5% more renewables than PG&E. Because PG&E’s renewables content cannot be known in advance, the 2021 renewable content was set based on PG&E’s 2020 renewable content. PG&E reported a renewable content of 36.2% for 2020, so the power content procurement floor for Bright Choice in 2021 was set to 41.2% – almost 20% less than in 2019. Because of PG&E’s use of nuclear and hydroelectric power, their electricity is expected to have a lower carbon content compared to Bright Choice in 2021.

EBCE intends to make Bright Choice cleaner in the coming years. In December 2020, the EBCE Board voted to establish a goal of providing 100% carbon free electricity by 2030. This will be fifteen years prior to the goals established by SB 100, the state law signed in 2018 which requires an emission-free power supply by 2045. SB 100 also has an interim goal of 60% renewable electricity by 2030.

GHG Emissions – As noted above, in 2019 Hayward’s emissions were 25.7% lower than 2005, in part due to Brilliant 100. Renewable 100 would allow Hayward to continue to make progress toward reaching its long term GHG reduction goals. If Hayward’s default is

Bright Choice, GHG emissions would increase. Currently, approximately 76% of Hayward customers are on Brilliant 100. The remainder are enrolled in Bright Choice (18%) or are with PG&E (6%)⁹. Table 1 below shows the breakdown of total electricity use by customer category.

Table 1. Electricity Demand by Customer Category.

Customer Category	Annual kWh	Percent of Total
Residential discounted	83,652,344	11.1%
Residential non-discounted	155,354,353	20.7%
Small Commercial	307,765,011	41.0%
Large Commercial	203,874,661	27.2%
Total	750,646,369	100.0%

The exact power mix for Bright Choice in 2022 is unknown, but as noted above, in 2021, Bright Choice will have at least 41.2% renewables. Table 2 shows the GHG impacts of choosing Bright Choice as the default product and represents a hypothetical scenario assuming EBCE includes more carbon free power to achieve 56% carbon free for Bright Choice¹⁰. It also shows the GHG impact of moving only non-discounted residential customers to Renewable 100. This scenario assumes that all CARE, FERA and Medical Baseline customers and all non-residential customers would remain enrolled in Bright Choice.

Table 2. If Bright Choice is 56% carbon free

	2005 Actual	2019 Actual	2019 If All are moved to Bright Choice	2019 If only Non-Discounted Residential are moved to R100
Electricity	185,890	13,093	161,456	129,998
Natural Gas	189,995	176,649	176,649	176,649
Transportation	636,581	522,897	522,897	522,897
BART	3,440	547	547	547
Off-Road	24,345	51,392	51,392	51,392
Waste	50,924	46,187	52,209	52,209
Total	1,091,174	810,765	965,150	933,692
% Reduction from 2005		25.7%	11.5%	14.4%

⁹ Customers with PG&E either chose to opt out of EBCE or they are direct access customers with the ability to choose third party power providers.

¹⁰ The calculations for this hypothetical scenario are based on the actual power mix and certified emissions factor for PG&E in 2005.

Table 3 shows the GHG impacts of Bright Choice versus Renewable 100 if EBCE is able to include more carbon free sources (62%) in the power mix for Bright Choice¹¹.

Table 3. If Bright Choice is 62% carbon free

	2005 Actual	2019 Actual	2019 If All are moved to Bright Choice	2019 If only Non-Discounted Residential are moved to R100
Electricity	185,890	13,093	37,079	30,597
Natural Gas	189,995	176,649	176,649	176,649
Transportation	636,581	522,897	522,897	522,897
BART	3,440	547	547	547
Off-Road	24,345	51,392	51,392	51,392
Waste	50,924	46,187	52,209	52,209
Total	1,091,174	810,765	840,773	834,291
% Reduction from 2005		25.7%	22.9%	23.5%

Staff has identified the following three options for the CSC's consideration:

1. Renewable 100 as the default for all customers with the exception of discounted residential customers. Discounted residential customers (CARE, FERA or Medical Baseline) would remain in Bright Choice. Assuming all other sectors remain unchanged, then we can expect future electricity emissions to be similar to 2019 and Hayward's progress toward GHG reduction goals to remain on track.
 - Rates for most customers would increase 3.5 to 5.1%. The average residential account would pay an additional \$4.11 per month.

2. Renewable 100 as the default for non-discounted residential customers. All other customers would move to Bright Choice.
 - Table 2 scenario (dirtier electricity) - overall GHG reductions would slip by approximately 11.3% to 14.4%.
 - Table 3 scenario (cleaner electricity) - overall GHG reductions would slip by approximately 2.2% to 23.5%.
 - Rates for non-discounted residential customers would increase 3.7%. The average residential account would pay an additional \$4.11 per month. Rates for commercial customers would decrease 0.4 to 0.6%.

3. Bright Choice as the default for all customers.
 - Table 2 scenario (dirtier electricity) - overall GHG reductions would slip by approximately 14.1% to 11.5%.
 - Table 3 scenario (cleaner electricity) - overall GHG reductions would slip by approximately 2.8% to 22.9%.

¹¹ The calculations for this hypothetical scenario are based on the actual power mix and certified emissions factor for EBCE's Bright Choice in 2018.

- Customers currently enrolled in Brilliant 100 would see a small decrease in their cost of electricity. Overall monthly savings would range from 0.4 to 0.6% and the average residential account would save \$0.46 on their monthly bill.

Other Cities – Most jurisdictions in EBCE have selected Bright Choice as their default product except as noted below. In addition to Hayward, Albany and Pleasanton will be choosing new default products this year.

- Albany – Albany chose Brilliant 100 in 2018 and will be choosing a new default product this year.
- Dublin – Dublin’s recently-adopted climate action plan identified Renewable 100 as a strategy to meet long term GHG reduction goals. Earlier this year the Dublin City Council selected Renewable 100 as the default electricity product for all residential accounts, except for CARE, FERA, and medical baseline accounts. The change will take effect in October 2021.
- Piedmont – Piedmont chose Renewable 100 as their default in 2018.
- Pleasanton – Pleasanton joined EBCE in 2020 and began receiving EBCE service in April 2021 with Brilliant 100 as the default. Pleasanton will be choosing a new default product this year.

FISCAL IMPACT

In response to Council’s decision in November 2020, all Hayward’s accounts were switched to Renewable 100 in early 2021. A new default product for the community will not affect the City’s accounts, so there will be no impact to City funds.

ECONOMIC IMPACT

Table 4 provides cost comparisons and includes the number of customers in each rate category and their current average monthly costs whether enrolled in Bright Choice or Brilliant 100 (B100). It also shows monthly costs for Renewable 100 (R100), and the percent increase the average customer would experience if switched from B100 to R100.

Table 4. Comparison of EBCE Product Costs

Rate	Rate Category	# of Customers	Monthly Bright Choice Average	Monthly Brilliant 100 Average	Monthly Renewable 100 Average	Monthly Bright Choice Discount Average	Monthly R100 Premium Average (over B100)	% Increase (R100 v. B100)
A1	Sm/Med Comm	537	\$445	\$447	\$465	\$1.87	\$17.47	3.9%
A1 TOU	Sm/Med Comm	5,300	\$354	\$356	\$369	\$1.48	\$13.57	3.8%
A10	Sm/Med Comm	19	\$2,796	\$2,810	\$2,930	\$13.65	\$119.76	4.3%
A10 TOU	Sm/Med Comm	562	\$3,690	\$3,709	\$3,871	\$18.44	\$161.75	4.4%
AGR	Agriculture	5	\$171	\$172	\$177	\$0.47	\$5.05	2.9%
E19	Large Comm	316	\$48,543	\$48,806	\$51,313	\$263.19	\$2,506.61	5.1%
E20P	Large Comm	4	\$149,099	\$149,931	\$158,701	\$832.32	\$8,770.00	5.8%
E20S	Large Comm	2	\$96,874	\$97,391	\$102,611	\$516.79	\$5,220.07	5.4%
RES	Residential	41,458	\$111	\$112	\$116	\$0.46	\$4.11	3.7%
RES TOU	Residential	5,950	\$168	\$169	\$175	\$0.63	\$5.91	3.5%

STRATEGIC ROADMAP

This agenda item relates to the Strategic Priority of Combat Climate Change. Specifically, this agenda item relates to the implementation of the following project:

Project 2: Work with EBCE to transition citywide electricity use to 100% carbon free (beginning in FY21)

The goal of transitioning all Hayward customers to 100% carbon free electricity was established with the understanding that the Brilliant 100 product would be available in the long term. Without Brilliant 100, staff is recommending that this project be postponed until EBCE can offer a carbon free product that is competitive with PG&E rates.

SUSTAINABILITY FEATURES

Community choice energy was identified in the City’s Climate Action Plan as the program with the greatest potential to reduce community wide GHG emissions. As noted above,

Hayward's participation in EBCE has resulted in the 2020 GHG reduction goal being met two years early.

PUBLIC CONTACT

EBCE has asked its member jurisdictions to choose a new default product by July 2021 to ensure there is sufficient time to do significant outreach so that customers are aware of any changes to their service and rates. Staff plans to conduct broad electronic outreach prior to Council's decision and then work closely with EBCE to do significant outreach, including direct mail, prior to January 1, 2022.

NEXT STEPS

Staff has tentatively scheduled Council's consideration of the default product for June 15, 2021. On July 21, 2021, the EBCE Board will vote to accept default requests from member jurisdictions.

Prepared by: Erik Pearson, Environmental Services Manager

Recommended by: Alex Ameri, Director of Public Works

Approved by:



Kelly McAdoo, City Manager