



Consent Item 10

TO: East Bay Community Energy Board of Directors
FROM: Jim Dorrance, Power Resources Associate
SUBJECT: East Bay Community Energy 2018 Emissions Factor (Informational Item)
DATE: November 20, 2019

Recommendation

Receive report on East Bay Community Energy’s 2018 Bright Choice emissions factor.

Background and Discussion

At the October 2018 Board meeting, the Board adopted a 2018 calendar year emissions factor target of 142 pounds of carbon-dioxide equivalent per mega-watt-hour (lb-CO₂e/MWh) for the Bright Choice energy product. Additionally, the Board directed East Bay Community Energy (EBCE) staff to use the Electric Power Sector Protocol (EPS) from The Climate Registry (TCR) as the device for reporting and verifying the 2018 emissions factor. EBCE’s 2018 Bright Choice emissions factor is 101 lb-CO₂e/MWh and is below the Board adopted target.

**EBCE 2018 Bright Choice Emissions Factor:
101 lb-CO₂e/MWh**

The 2018 Bright Choice emissions factor is derived using the power sources on the Power Content Label for the Bright Choice energy product. Unspecified power, Asset Controlling Supplier (ACS) power and other sources from Bright Choice’s content produce emissions. A relevant emissions factor is applied to the purchased energy for each source to quantify the emissions and derive an aggregate EBCE emissions factor. Both the Renewable 100 and the Brilliant100 energy products were also reported using the EPS. These products are both carbon-free and this was verified through TCR.

TCR is a non-profit organization that designs and operates a voluntary United States Green House Gas reporting program that is used by Pacific Gas & Electric and some California Community Choice Aggregators for reporting their emissions factors. The EPS protocol within TCR mandates standardized reporting guidelines and was used by EBCE to report emissions for power delivered in 2018. TCR requires an independent verification of the emissions data before publicly releasing the report. The emissions factors for EBCE’s three energy products

have been verified and will be publicly available on TCR's website with the EPS report included as an attachment (Attachment A).

Fiscal Impact

There are no fiscal impacts related to the release of EBCE's 2018 Bright Choice Emissions Factor.

Attachments

- A. EBCE's 2018 Electric Power Sector Report
- B. Emissions Factor Presentation

Electric Power Sector Report 1.2

Purpose

The following worksheets will aid you in reporting your power generation and deliveries metrics under The Climate Registry's Electric Power Sector (EPS) Protocol, Version 1.0.

Applicability

Electric utility companies with the root code 2211 in the North American Industry Classification System that choose to report in accordance with the EPS Protocol must report required utility-specific power generation metrics and optional power deliveries metrics as supplementary information using the metrics calculators in the following worksheets. Completed reports must be uploaded into CRIS before your entity's annual emissions inventory report can be verified.

Implementation

Starting with 2010 emissions data, electric utility companies are required to report to The Registry using the EPS Report.

Process

- Step 1:** Review all instructions.
- Step 2:** Enter the data requested in the yellow fields on the following worksheets.
- Step 3:** Review reported data for accuracy.
- Step 4:** Convert report to PDF.
- Step 5:** Upload PDF report to CRIS as a public document assigned to the entity level.

If you have questions, please call The Registry's Member Services Team at **866-523-0764 x3** or email **help@theclimateregistry.org**.

Power Generation Metrics Worksheet - REQUIRED											
<p>Instructions: This worksheet must be used to report your required power generation metrics. Please refer to page 96-99 of the EPS Protocol for further guidance.</p> <p><i>Important things to keep in mind:</i></p> <ol style="list-style-type: none"> All emissions data needed to calculate the power generation metrics is already entered into CRIS as part of your inventory. All power generation metrics are based on CO₂ emissions per unit of output, rather than CO₂e. Emissions of gases other than CO₂ are not used in the metric calculations. Metrics rely only on CO₂ emissions directly related to power generation (anthropogenic and biogenic emissions treated separately). The only sources of emissions to be included are direct stationary combustion, geothermal process, acid gas scrubber and biogenic process emissions. For all these metrics, the emissions are taken directly from the direct emissions calculations in Chapters 12-16 of the EPS Protocol. You should fill in as many rows as necessary based on the number of owned or controlled generation sources (facility and/or units) in your company as well as facilities or units in which your company has equity. You only need to fill in the cells that are highlighted in yellow. All other cells are locked and will calculate automatically. 											
<p>Power Generation Metrics: Entity Average Generation Metric</p> <p>The Entity Average Generation Metric represents the anthropogenic carbon intensity from all sources of power generated by your entity, i.e. the tonnes of direct anthropogenic CO₂ emissions for electricity generation per net megawatt-hour of electricity generated for all owned or controlled facilities combined. Your Entity Average Generation Metric will be calculated for you based on data you report in the table below. You are only required to fill in your company name in this section.</p> <p>Cell B17: Enter your company name.</p> <p>Cell B18: Total tonnes (t) of CO₂ is calculated automatically based on the equity share of anthropogenic CO₂ emissions from fossil fuel combustion, process emissions SO₂ scrubbers, geothermal fugitive emissions, and all other CO₂ emissions directly related to power generation from each facility/unit reported in the table below. Do not include biogenic CO₂ emissions from the combustion of biofuels or emissions from other activities not related to power generation.</p> <p>Cell B19: Total Net Generation Share is calculated automatically based on the equity portion of all power generated for all sources including coal, natural gas, distillate fuel, hydro, nuclear, biomass, renewables etc.</p> <p>Cell B20: The EPS Metric G-4 is calculated automatically and represents the anthropogenic carbon intensity for all owned or controlled facilities combined for your entity.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Entity Average EPS Metric G-4*</th> </tr> </thead> <tbody> <tr> <td style="width: 80%;">Company Name</td> <td style="width: 20%;"></td> </tr> <tr> <td>Total CO₂ (t)</td> <td style="text-align: right;">-</td> </tr> <tr> <td>Total Net Generation Share (MWh)</td> <td style="text-align: right;">-</td> </tr> <tr> <td>EPS Metric G-4</td> <td style="text-align: right;">-</td> </tr> </tbody> </table> <p>*If you have added rows to the table below, please ensure that the ranges in cells C 18 and 19 include all of your facilities and units.</p>		Entity Average EPS Metric G-4*		Company Name		Total CO ₂ (t)	-	Total Net Generation Share (MWh)	-	EPS Metric G-4	-
Entity Average EPS Metric G-4*											
Company Name											
Total CO ₂ (t)	-										
Total Net Generation Share (MWh)	-										
EPS Metric G-4	-										
<p>Power Generation Metrics: Compiling Data For Power Generation Metrics</p> <p>Notes:</p> <ol style="list-style-type: none"> In this section of the report, disclose your indicator data for each generating facility in which you have an ownership interest as required by the EPS. Indicator data includes each facility's net generation, equity share in each facility/unit, equity share net generation, power exported to your entity's T&D system, and power exported to the grid (see page 97 in the EPS for more information). Emissions calculations (calculated offline according to the calculation methodologies in the EPS Protocol) are used in combination with the indicator data to develop sector-specific power generation metrics. Only those metrics applicable to your scope of operations need to be calculated. For example, a Member that operates three natural gas power plants will report EPS Metric G-1 for each facility and G-4 for all facilities combined (EPS Metric G-2 and G-3 would not apply). You must report power generation metrics for all generating facilities you own and for all shared units, including those with no emissions. This metrics calculator will then compile an entity average generation metric that includes all generation facilities and units. <p>Column A: Select "facility" or "unit" from the drop-down menu. If you have an ownership interest in a generating facility, choose "facility." If you only have an ownership interest in one or more specific units at a generating facility (rather than the entire facility), choose "unit."</p> <p>Column B: Type the name of your facility or unit. The name should match the name given to this facility or unit in CRIS.</p> <p>Column C: Report 100 percent of the net generation in MWh for the facility or unit regardless of your equity share or export destination.</p> <p>Column D: Report the equity share for the facility or unit. All power generation metrics are based on the equity share of emissions and corresponding power generation (MWh).</p> <p>Column E: The Net Generation Share is calculated automatically based on your input values in columns C and D.</p> <p>Column F: Report the net generation in MWh exported to your own transmission distribution system. This amount plus the amount exported for resale cannot exceed your total facility/unit net generation.</p> <p>Column G: Report the net generation in MWh corresponding to the portion of power exported to other users or the electric grid.</p> <p>Column H: Report 100 percent of the tonnes of direct fossil CO₂ emissions from stationary fossil fuel combustion for electricity generation facilities or units regardless of your equity share or export destination. If you have used a fuel-based calculation method to determine emissions, any CO₂ emissions from scrubbers will also need to be included. Do not include any purchased generation emissions, geothermal process emissions or biogenic CO₂ emissions from biogenic sources. For co-generation facilities, include only the CO₂ emissions allocated to electricity.</p> <p>Column I: Report 100 percent of the net generation in MWh of fossil-generated electricity regardless of your equity share or export destination. Do not include any purchased generation emissions, geothermal process emissions or biogenic CO₂ emissions from biogenic sources.</p> <p>Column J: The EPS Metric G-1 (Net Fossil CO₂/Net MWh Fossil Generation) is calculated automatically for each electric generating unit or facility. This metric is a measure of the carbon intensity of your electricity generation from stationary fossil fuel combustion sources.</p> <p>Column K: Report 100 percent of the metric tons of direct biogenic CO₂ emissions regardless of equity share or export destination. Direct biogenic emissions may come from stationary combustion, process emissions (CO₂ "pass-through" for landfill gas), or from fugitive emissions directly related to power generation. For co-generation facilities, include only the biogenic CO₂ emissions allocated to electricity.</p> <p>Column L: Report 100 percent of the MWh of electricity generated from biogenic sources regardless of your equity share or export destination. Only include the generation that is directly attributable to biogenic combustion. See page 98 of the EPS Protocol for examples of biogenic sources.</p> <p>Column M: The EPS Metric G-2 (Net Biogenic CO₂/Net MWh Biogenic Generation) is calculated automatically for each generating unit or facility that uses biogenic sources. This metric is a measure of the biogenic carbon intensity of your electricity generation from biogenic process and combustion sources.</p> <p>Column N: Report 100 percent of the tonnes of direct fossil CO₂ emissions from stationary fossil fuel combustion used exclusively for start-up of biogenic electricity generation facilities or units regardless of your equity share or export destination.</p> <p>Column O: The Fossil Metric (Start-up) for Biogenic Electricity Generation (Net Fossil Start-up CO₂/Net MWh Biogenic Generation) is calculated automatically for each biogenic generating unit or facility that uses fossil fuel for start-up only based on your input values in columns L and N. Co-fired facilities, that use both biogenic and fossil sources to generate electricity, must report fossil emissions and MWh in EPS Metric G-1.</p> <p>Column P: Report 100 percent of the tonnes of direct CO₂ emissions from geothermal sources regardless of your equity share or export destination. For co-generation facilities, include only the geothermal CO₂ emissions allocated to electricity.</p> <p>Column Q: Report 100 percent of the MWh of electricity generated from geothermal regardless of your equity share or export destination.</p> <p>Column R: The EPS Metric G-3 (Net Geothermal CO₂/Net MWh Geothermal) is calculated automatically for each geothermal generating unit or facility.</p> <p>Column S: The EPS Metric G-4 (Net Anthropogenic CO₂/Total Net Generation MWh) is calculated automatically for each unit or facility.</p> <p>Column T: The quality assurance check ensures that MWh exported to your T&D system and MWh exported to the electric grid do not exceed the total net generation of your unit or facility.</p> <p>Column U: Here you may optionally report any identification numbers associated with your facility or unit. Examples include your CRIS facility ID, U.S. Energy Administration information facility ID, etc.</p>											

Power Deliveries Metrics Worksheet - OPTIONAL

Introduction: Consumers of electric power are becoming increasingly interested in the carbon intensity of the power they purchase. Reporting power deliveries metrics is a way to provide information to your customers and have credible data that adheres to The Registry's standards and third-party verification requirements. The metrics reported here will be a valuable source of emission factors for your customers to use when calculating their own indirect emissions.

Compiling Power Deliveries Data: Reporting power deliveries metrics is **optional** under the EPS Protocol for Members that deliver power to wholesale or retail customers. However, if you choose to report these metrics, you must follow the methodologies outlined in sections 19.1 - 19.5 of the EPS Protocol and have the reported metrics third-party verified. Please read Chapter 19 in the EPS Protocol for a more detailed explanation of the power deliveries metrics.

Developing Power Deliveries Metrics: You must disclose total MWh (Column D) and corresponding anthropogenic CO₂ (Column B) from all power generated and purchased for delivery to customers. Refer to page 100, Section 19.1 in the EPS Protocol for further guidance on establishing customer categories and assigning power generation and purchases to specific customer categories. You should not include any emissions from non-power generation sources (e.g. mobile combustion, fugitive emissions, etc). Report only CO₂ emissions (not CO₂e).

You must choose to either report according to Option A (Single System-Average) or Option B (by power product). If you choose to report according to Option B you must develop multiple metrics for the electricity delivered to distinct customer groups, e.g. "Green Pricing Program." You should aggregate the power and associated emissions for the power that flows to the customer groups you have defined and input the data in the table below to calculate the appropriate power deliveries metric.

If you purchase or sell "green power" certificates, e.g. RECs, TRCs, TRECs, etc., you may wish to report an adjusted emission metric for the power product to which the certificates are being applied. Accounting for RECs and special certificates will lower the GHG intensity of the electricity mix delivered to your customers. Making this adjustment to the metric is optional. Please reference Section 19.3 in the EPS Protocol for further guidance.

Optional power deliveries metrics can only be reported if you use the EPS IE-01: Energy Balance Method to calculate the indirect emissions associated with T&D losses. Please see Chapter 14 in the EPS Protocol for further guidance.

Power Deliveries Metrics: Reporting for a Single System-Average (Option A)

Row 21 :

Column B: *Input tonnes of anthropogenic CO₂ emissions from electricity generation and purchases for all customers.*

Column C: *Input RECs and other special power certificates transactions delivered to all customers**

Column D: *Input net megawatt-hour of electricity delivered to all customers.*

Column E *The single system-average metric is calculated automatically based on the inputs from B:22-D:22.*

(OPTION A)

Report Single System-Average Metric

	t CO ₂	REC Adjustments*	MWh	Metric
Single System-Average Metric (Option A)				N/A

Comments: Add any supporting explanation/clarification for your Verification Body (if applicable).

** All RECs and special power certificates claimed here must meet the eligibility requirements laid out in Step 1 on page 108 of the EPS Protocol.*

Power Deliveries Metrics: Reporting Separate Metrics for Wholesale, Special Power, and Retail (Option B)

Row 42 :

Column B: *Input tonnes of anthropogenic CO₂ emissions from electricity generation and purchases for the portion of electricity resold at the wholesale level.*

Column D: *Input net megawatt-hour of electricity delivered to wholesale customers.*

Column E: *The anthropogenic carbon intensity (CO₂ emissions per unit of output) of power delivered to wholesale customers will be calculated here.*

Row 43:

Column B: *Input tonnes of anthropogenic CO₂ emissions from electricity generation and purchases for the portion of electricity sold as a special product.*

Column D: *Input net megawatt-hour of electricity delivered to special power customers.*

Column E: *The anthropogenic carbon intensity (CO₂ emissions per unit of output) of power delivered to special power customers will be calculated here.*

Row 44 :

Column B: *Tonnes of anthropogenic CO₂ emissions from electricity generation and purchases for the portion of electricity delivered to retail customers.*

Column D: *Net megawatt-hour of electricity delivered to retail customers.*

Column E: *The anthropogenic carbon intensity (CO₂ emissions per unit of output) of power delivered to retail customers.*

Rows 48-52 :

These rows are intended for Members to optionally report metrics for self-defined customer categories (if applicable). For example, you may wish to develop multiple metrics for the electricity delivered to distinct customer groups of your wholesale power transactions or for separate special power products. Be sure to name the customer category in Column A according to your company records.

(OPTION B)

Report Separate Metrics for your Wholesale Sales, Special Power Products, and/or Retail Sales

	t CO ₂	REC Adjustments*	MWh	Metric
EPS Metric D-1 (Wholesale Electric Deliveries)		N/A		N/A
EPS Metric D-2 (Special Power Electric Deliveries)	85,504.38	N/A	2,286,979.91	3.74E-02
EPS Metric D-3 (Retail Electric Deliveries)		N/A		N/A

EPS Metric D-2 (Special Power Electric Deliveries) represents the total emissions for all electricity sold by East Bay Community Energy for 2018. These emissions are represented by three power products: Renewable 100, Brilliant 100, and Bright Choice. Further detail on the supply mix for each of the power products are shown on the worksheet for Additional Optional Information.

Report Additional Wholesale and Special Power Delivery Metrics

Name	t CO ₂	REC Adjustments*	MWh	Metric
Renewable 100	-	N/A	4,605.00	0
Brilliant 100	-	N/A	412,703.00	0
Bright Choice	85,504.38	N/A	1,869,671.91	4.57E-02
		N/A		N/A
		N/A		N/A

Comments: Add any supporting explanation/clarification for your Verification Body (if applicable).

Power Deliveries Metrics: Reporting Certificate-Adjusted Metrics

Row 73:

Column B: Tonnes of anthropogenic CO₂ emissions from electricity generation and purchases for the portion of electricity resold at the wholesale level (cell B50).

Column C: Input RECs and other special power certificates transactions delivered to wholesale customers.*

Column D: Net megawatt-hour of electricity delivered to wholesale customers (from cell D50).

Column E: The certificate-adjusted anthropogenic carbon intensity (CO₂ emissions per unit of output) of power delivered to wholesale customers.

Row 74:

Column B: Tonnes of anthropogenic CO₂ emissions from electricity generation and purchases for the portion of electricity resold at the special power level (from cell B51).

Column C: Input RECs and other special power certificates transactions delivered to special power customers.*

Column D: Net megawatt-hour of electricity delivered to special power customers (from cell D50).

Column E: The certificate-adjusted anthropogenic carbon intensity (CO₂ emissions per unit of output) of power delivered to special power customers.

Row 75:

Column B: Tonnes of anthropogenic CO₂ emissions from electricity generation and purchases for the portion of electricity resold at the retail level (from cell B52).

Column C: Input RECs and other special power certificates transactions delivered to retail customers.*

Column D: Net megawatt-hour of electricity delivered to retail customers (from cell D50).

Column E: The certificate-adjusted anthropogenic carbon intensity (CO₂ emissions per unit of output) of power delivered to retail customers.

Rows 81-85:

These rows are

intended for Members that optionally reported self-defined customer categories above and want to calculate the certificate-adjusted metrics.

Certificate-Adjusted Metrics				
	t CO₂	REC Adjustments*	MWh	Certificate-Adjusted Metric
EPS Metric D-1 (Wholesale Electric Deliveries)	-		-	N/A
EPS Metric D-2 (Special Power Electric Deliveries)	85,504		2,286,980	3.74E-02
EPS Metric D-3 (Retail Electric Deliveries)	-		-	N/A

Comments: Add any supporting explanation/clarification for your Verification Body (if applicable).

* All RECs and special power certificates claimed here must meet the eligibility requirements laid out in Step 1 on page 108 of the EPS Protocol.

Additional Certificate-Adjusted Metrics				
Name	t CO₂	REC Reductions*	MWh	Certificate-Adjusted Metric
Renewable 100	-		4,605	0
Brilliant 100	-		412,703	0
Bright Choice	85,504		1,869,672	4.57E-02
	-		-	N/A
	-		-	N/A

Comments: Add any supporting explanation/clarification for your Verification Body (if applicable).

Additional Optional Information Worksheet - OPTIONAL

Introduction: On this worksheet, The Registry has provided a place for utilities to provide additional entity-level information about the power they purchase and generate.

Note: Information in this section is voluntarily provided by the participant for public information, but is not required and is not verified under the Climate Registry's protocols.

GENERATION & PURCHASED POWER INFORMATION	Bright Choice		Renewable 100		Brilliant 100	
	Amount (MWh)	CO ₂ (tonnes)	Amount (MWh)	CO ₂ (tonnes)	Amount (MWh)	CO ₂ (tonnes)
Owned Generation Total (Net)	0.00	0.00	0.00	0.00	0.00	0.00
Fossil Generation (Net)	0.00	0.00	0.00	0.00	0.00	0.00
Biogenic Generation (Net)	0.00	0.00	0.00	0.00	0.00	0.00
Geothermal Generation (Net)	0.00	0.00	0.00	0.00	0.00	0.00
Other Renewable Generation (Net)	0.00	0.00	0.00	0.00	0.00	0.00
Zero Emission Generation (Net)	0.00	0.00	0.00	0.00	0.00	0.00
Co-generation (Net)	0.00	0.00	0.00	0.00	0.00	0.00
Purchased Power Total (Net)	1,869,671.91	85,504.38	4,605.00	0.00	412,703.00	0.00
Purchased Fossil Power (Net)	32.00	3.19	0.00	0.00	0.00	0.00
Purchased Biogenic Power (Net)	0.00	0.00	0.00	0.00	0.00	0.00
Purchased Geothermal Power (Net)	24,198.00	0.00	0.00	0.00	0.00	0.00
Purchased Large Hydro-Electric Power (Net)	398,359.57	0.00	0.00	0.00	228,457.00	0.00
Purchased Wind and Solar Power (Net)	741,444.34	0.00	4,605.00	0.00	184,246.00	0.00
Purchased Co-generation Power (Net)	0.00	0.00	0.00	0.00	0.00	0.00
Purchased Wholesale Power (Net)	705,638.00	85,501.19	0.00	0.00	0.00	0.00
TOTAL FOSSIL GENERATION/PURCHASES	32.00	3.19	0.00	0.00	0.00	0.00
TOTAL FROM BIOGENIC SOURCES	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL FROM GEOTHERMAL SOURCES	24,198.00	0.00	0.00	0.00	0.00	0.00
TOTAL OTHER GENERATION/PURCHASES	1,845,441.91	85,501.19	4,605.00	0.00	412,703.00	0.00
TOTAL FROM ALL GENERATION/PURCHASES	1,869,671.91	85,504.38	4,605.00	0.00	412,703.00	0.00
TOTAL FROM RETAIL SALES	1,869,671.91	85,504.38	4,605.00	0.00	412,703.00	0.00

Comments:



2018 Emissions Factor

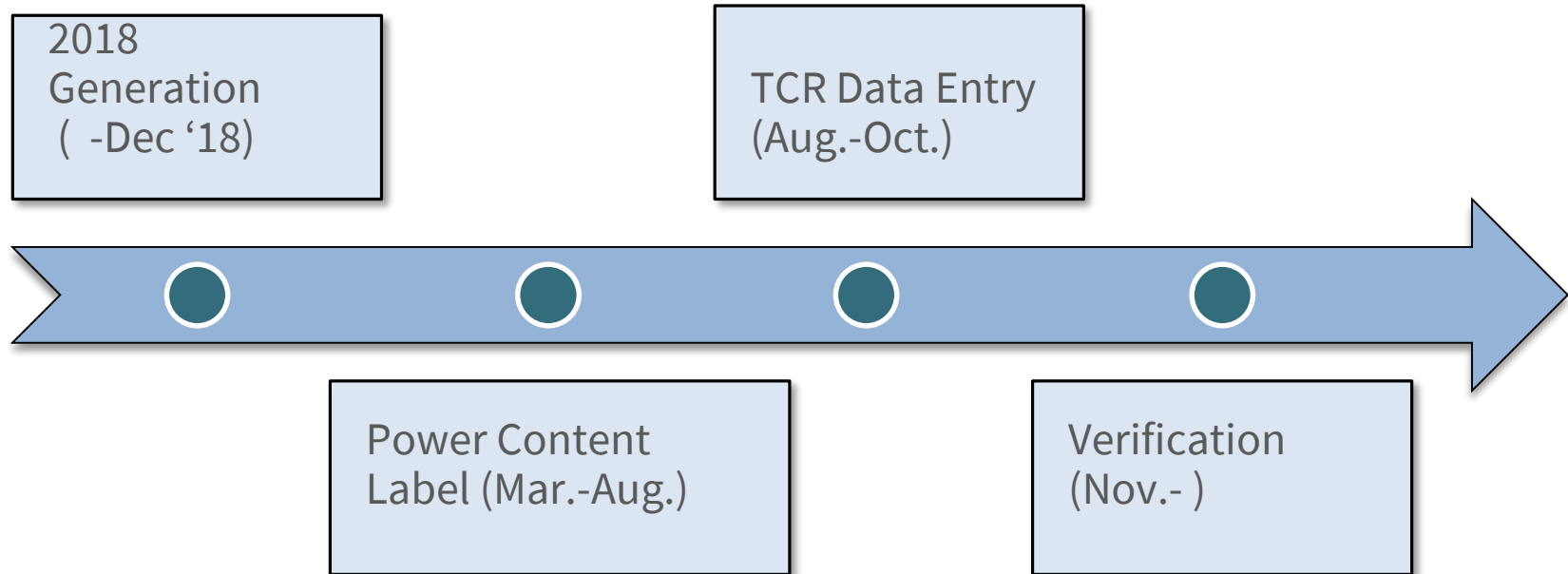
PRESENTED BY: Jim Dorrance

DATE: November 20, 2018



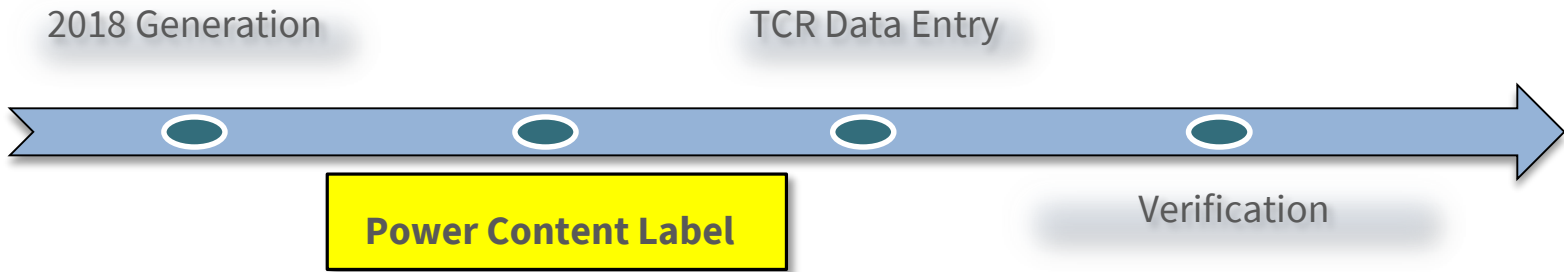
Purpose, Timeline

- To present EBCE's 2018 Emissions Factor



2018 Power Content Label

East Bay Community Energy • 2018 Power Content Label • www.ebce.org				
Energy Resources	Bright Choice	Brilliant 100	Renewable 100	2018 CA Power Mix ^{***}
Eligible Renewable	41%	45%	100%	31%
Biomass & Biowaste	0%	0%	0%	2%
Geothermal	1%	0%	0%	5%
Eligible Hydroelectric	0%	0%	0%	2%
Solar	15%	20%	50%	11%
Wind	25%	25%	50%	11%
Coal	0%	0%	0%	3%
Large Hydroelectric	21%	55%	0%	11%
Natural Gas	0%	0%	0%	35%
Nuclear	0%	0%	0%	9%
Other	0%	0%	0%	<1%
Unspecified sources of power*	38%	0%	0%	11%
TOTAL	100%	100%	100%	100%



- The public disclosure of EBCE customer's power content which shows the percent of power delivered by resource type
- Includes all transacted power purchases and power sales
- Data is audited by the CEC and by an independent third-party auditor (Abbott, Stringham & Lynch)
- Audits include validation of all purchases, sales, and delivered RECs/carbon-free power
- Results are used in The Climate Registry for calculating emissions

The Climate Registry

- Operates a voluntary, national GHG reporting program that assists organization in measuring, reporting and verifying emissions
- Used by other California CCA's and PG&E
- A non-profit governed by US states and Canadian Provinces
- Contains specific protocol for the electric power sector

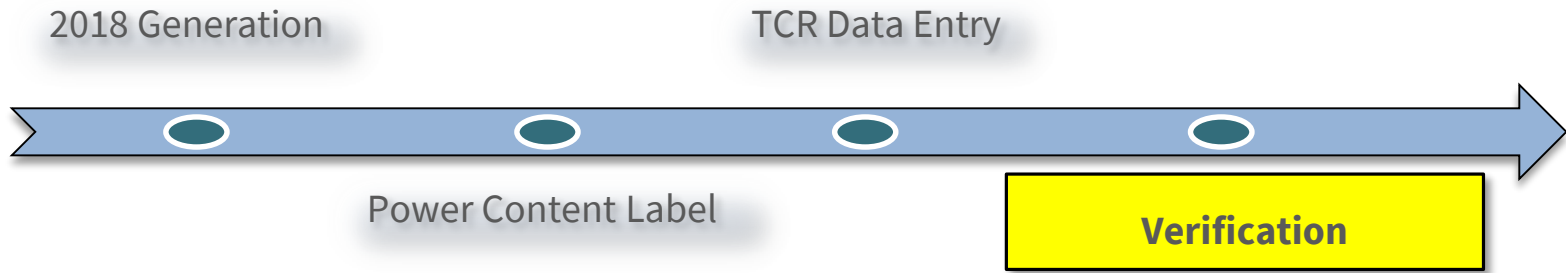
2018 Generation

TCR Data Entry

Power Content Label

Verification

- Transactional power data was validated by an independent third-party (SCS Global) including a review of invoices, sales confirmation, and billing
- Carbon free and RECs were verified with e-tags and through WREGIS (the accounting platform for REC's)
- SCS Global derived an aggregate quantity of CO₂e from the data and reported a emissions factor on TCR's platform on behalf of EBCE



- The reporting within the TCR platform is verified by a different auditor (Cameron-Cole)
- Cameron-Cole reviewed the calculations for the emissions factor, checked accuracy in reporting, and reviewed transactional data
- TCR conducts their own verification and when completed posts EBCE's emissions factor on their website

TCR reporting form

Report Separate Metrics for your Wholesale Sales, Special Power Products, and/or Retail Sales				
	t CO ₂	REC Adjustments*	MWh	Metric
EPS Metric D-1 (Wholesale Electric Deliveries)		N/A		N/A
EPS Metric D-2 (Special Power Electric Deliveries)	85,504.38	N/A	2,286,979.91	3.74E-02
EPS Metric D-3 (Retail Electric Deliveries)		N/A		N/A
<p><i>EPS Metric D-2 (Special Power Electric Deliveries) represents the total emissions for all electricity sold by East Bay Community Energy for 2018. These emissions are represented by three power products: Renewable 100, Brilliant 100, and Bright Choice. Further detail on the supply mix for each of the power products are shown on the worksheet for Additional Optional Information.</i></p>				
Report Additional Wholesale and Special Power Delivery Metrics				
Name	t CO ₂	REC Adjustments*	MWh	Metric
Renewable 100	-	N/A	4,605.00	0
Brilliant 100	-	N/A	412,703.00	0
Bright Choice	85,504.38	N/A	1,869,671.91	4.57E-02
		N/A		N/A
		N/A		N/A

- Input form for emissions used with TCR
- Calculates CO₂e in MT-CO₂e/MWh
- Applying a conversion factor results in lb-CO₂e/MWh

2018 Emissions Factor

- Board-Adopted 2018 Bright Choice Emissions Factor Target:
 - ❑ **142 lb-CO₂e/MWh** (0.064 MT-CO₂e/MWh)
- Bright Choice 2018 Emissions Factor:
 - ✓ **101 lb-CO₂e/MWh** (0.046 MT-CO₂e/MWh)
- 2018 Emissions Factor for the aggregate of all three of EBCE's energy products:
 - ✓ **82 lb-CO₂e/MWh** (0.037 MT-CO₂e/MWh)

Next Steps

- Results will be publicly available on Registry by the end of November
- Ongoing evaluation of emissions accounting methodologies in light of AB110 Power Content Label changes and IRP emissions accounting process

Questions ?