Market-Based CETA Accounting Framework & Compliance Scenarios

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CETA requires utilities to use clean energy to supply their WA retail customers

- UTC Staff's preliminary interpretation of the term "use" is correct.
- The plain language in the 2030 and 2045 standards is identical in its reference to "use".
- The utilities interpret CETA as a procurement standard. A procurement standard allows them to rely on fossil fuel generation for any or all of the electricity they sell to Washingtonians, so long as they procure sufficiency clean electricity and retain sufficient RECs.

Agencies should refer to the record in UE-191023, particularly:

- See: Notice of Opportunity to File Written Comments dated June 12, 2020 in Docket UE-191023
- See: Legal Memorandum filed by NWEC on Aug. 11, 2020 in Docket UE-191023.

Principles for CETA Accounting Rules

- CETA provides a framework for complete decarbonization of WA's electricity system by 2045, with the first compliance period beginning in 2030 (8 years from now).
- Changes to market structures, capabilities, and tracking mechanisms can be reasonably anticipated over the next 8 years. There is broad agreement among stakeholders that markets will continue to evolve over the next 24 years.
- In the near-term:
  - Washington agencies could make a preliminary determination that claiming final ownership of electricity under a financial accounting framework is adequate for a utility to plan for compliance with CETA's "use" requirement until more refined tracking tools can be implemented.
- In the long-term:
  - Accounting rules for CETA should leverage and improve upon existing tracking tools, AND allow for and support development of more robust tracking mechanisms. Alternatively, a multi-state effort to develop a tracking system for meeting clean electricity standard reporting requirements across a broader footprint may emerge separately and concurrently with markets.

Framework for Market-Based Financial Accounting

- To demonstrate compliance with CETA, it is not necessary to track the electrons generated by a resource to a specific retail load.
- When power is purchased and sold on the market, the exchange is contractual, rather than physical.
- If the electricity has been sold, it cannot be "used" to serve load.
- Compliance can be documented using documentation from a tracking mechanism report, such as NERC e-tags; OR other demonstration of final ownership of the electricity.

Using NERC e-Tags for Clean Energy Accounting

- Current markets rely on NERC e-Tags to document transactions across balancing areas.
- Information fields on NERC e-tags can be used for a variety of purposes.
  - For example, the California Independent System Operator (CAISO) requires specific information to be included on all e-Tags for imports into California.
- The “miscellaneous” field can be used to characterize the electricity in the transaction, thereby enabling tracking and accounting across balancing areas on any time period.
- NWEC/CS proposal allows for e-Tags OR other documentation to be used to demonstrate compliance.

[redacted] Start/Stop Time: Jun 30, 2021 10:00 - Jun 30, 2021 11:00 CST

Tag Schematic

Tag Information

GCA	CPSE	Tag Code	LCA	Transaction Type	Time Zone	Test Tag	Tag MWH at Gen (Original/Final)	Tag MWH at Load (Original/Final)
UTIL 1	BCHA	ATH4473	UTIL 2	Normal	CST	No	5 / 5	5 / 5

PSE Comment: NWPP RS

Multiple Base Profile: No

Market Path

PSE	Product	Contract	Misc Info
UTIL 1	G-F	NWPP RS	Yes
BPAT			No
UTIL 2			No
AVWP00	L		No

Misc Info

Token	Value
WECC_Reserve_Responsible_Entity	UTIL 1
WECC_Reserve_Resp_Entity_Type	BA

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
UTIL 1			UTIL 1	Source:	UTIL 1			No	
	BPAT		BPAT	[redacted]		BPAT		No	
	UTIL 2T		UTIL 2	[redacted]		UTIL 2		No	
UTIL 2			UTIL 2	Sink:	UTIL 2			No	

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
UTIL 1			UTIL 1	Source: UTIL 1-EIM				No	
	BPAT		UTIL 1	BPATUTIL 1	BPATUTIL 2	BPAT		Yes	
	UTIL 2		UTIL 2	BPATUTIL 2	UTIL 2	UTIL 2		No	
UTIL 2			UTIL 2	Sink: UTIL 2 - 1L-EIM_DN				No	

Misc Info

Token	Value
CAISO_RES_ID	[redacted]

- e-Tag Accounting (Illustrative Example only)
  - Top: Normal transaction
  - Bottom: EIM transaction

Interim Accounting Proposal

1. Report Total System Mix

- Characterize all purchases, generation, and other procurements by resource type (adjusted for line losses)

2. Create a Residual System Mix

- Subtract specified sales from Total System Mix (adjusted for line losses)
- Net out unspecified intra-hour transactions consistent with CCA methodology

3. Impute Residual System Mix characteristic to Unspecified Sales

- Apply the Residual System Mix identified in #2 to all remaining Unspecified Sales, not including those identified in (2)(c)

4. Create Load Serving System Mix that can be claimed for CETA's 80% compliance requirement

- Subtract the Unspecified Sales with Residual System Mix characteristic from the Total System Mix

Scenario #1

Load	200 MWhs
Renewable/Nonemitting Generation Total	160 MWhs (after line losses)
Emitting electric generation	0 MWhs
Unspecified Purchases	40 MWhs
Unspecified Sales	0 MWhs
Specified Sales	0 MWhs
Renewable and nonemitting generation used for retail load for compliance with RCW 19.405.040(1)(a)(ii)	160 MWhs
Alternative compliance per RCW 19.405.040(1)(b)	40

Scenario #2

Load	200 MWhs
Renewable/Nonemitting Generation Total	230 MWhs (after line losses)
Emitting electric generation	0 MWHs
Unspecified Purchases	20 MWhs
Unspecified Sales	0 MWhs
Specified renewable Sales	50 MWhs
Renewable and nonemitting generation used for compliance with RCW 19.405.040(1)(a)(ii)	180 MWhs
Alternative compliance per RCW 19.405.040(1)(b)	20 MWhs

Scenario #3

Load	200 MWhs
Renewable/Nonemitting Generation Total	200 MWhs (after line losses)
Emitting generation	50 MWhs
Unspecified purchases	0 MWhs
Unspecified Sales	50 MWhs *Characterized using an imputed utility portfolio. If a utility is generating 80% renewable and 20% emitting resources in a given time period, and is selling 50 MWhs, the utility will be attributing 40 MWhs from renewables (80% of 50 MWhs) to its sales and cannot use those for CETA's 80% requirement.
Specified Sales	0 MWhs
Renewable and nonemitting generation used for compliance with RCW 19.405.040(1)(a)(ii)	160 MWhs
Alternative compliance per RCW 19.405.040(1)(b)	40 MWhs

Scenario #4

Load	200 MWhs
Renewable/Nonemitting Generation Total	200 MWhs (after line losses)
Emitting electric generation	0 MWhs
Unspecified Purchases	50 MWhs
Unspecified Sales	50 MWhs *Characterized using an imputed utility portfolio. If a utility is generating 80% renewable and 20% emitting resources in a given time period, and is selling 50 MWhs, the utility will be attributing 40 MWhs from renewables (80% of 50 MWhs) to its sales and cannot use those for CETA's 80% requirement.
Specified Sales	0 MWhs
Renewable and nonemitting generation used for compliance with RCW 19.405.040(1)(a)(ii)	160 MWhs
Alternative compliance per RCW	40 MWhs

Scenario #5

Load	200 MWhs
Renewable/Nonemitting Generation Total	230 MWhs (after line losses)
Emitting electric generation	0 MWHs
Unspecified Purchases	0 MWhs
Unspecified Sales	30 MWhs *Characterized using an imputed utility portfolio. If a utility is generating 100% renewable in a given time period, and is selling 30 MWhs, the utility will be attributing 30 MWhs from renewables to its sales and cannot use those for CETA's 80% requirement.
Specified renewable Sales	0 MWhs
Renewable and nonemitting generation used for compliance with RCW 19.405.040(1)(a)(ii)	200 MWhs
Alternative compliance per RCW 19.405.040(1)(b)	0 MWhs

Scenario #6

Load	200 MWhs
Renewable/Nonemitting Generation Total	230 MWhs (after line losses)
Emitting electric generation	20 MWHs
Unspecified Purchases	0 MWhs
Unspecified Sales	50 MWhs *Characterized using an imputed utility portfolio. If a utility is generating 90% renewable and 10% emitting in a given time period, and is selling 50 MWhs, the utility will be attributing 45 MWhs from renewables to its sales and cannot use those for CETA's 80% requirement.
Specified renewable Sales	0 MWhs
Renewable and nonemitting generation used for compliance with RCW 19.405.040(1)(a)(ii)	185 MWhs
Alternative compliance per RCW 19.405.040(1)(b)	15 MWhs