March 1, 2023

Luke Martland, Manager, Climate Commitment Act Implementation
Department of Ecology
300 Desmond Drive SE
Lacey, WA 98503

Dear Mr. Martland,

The undersigned write to request that the Department of Ecology (Ecology) publish formal reporting guidance for Electric Power Entities (EPEs) under the Climate Commitment Act (CCA) or conduct an expedited rulemaking. Experience in transacting electricity during the first weeks that the program has been in effect suggests that there is significant uncertainty regarding which electricity transactions are considered electricity imports under the CCA and which entity bears the compliance obligation for such imports. Different interpretations of the rules will result in incomplete and inconsistent reporting of imports and associated emissions, and lead to adverse verification statements and non-compliance penalties. Different interpretations of the rules is also likely to create contractual disputes over payment of carbon costs between entities on different sides of the import transactions, and undermine market liquidity at the Mid-Columbia (MID-C) wholesale electricity trading hub, resulting in higher overall electricity costs for Washington consumers.

The rules for electricity imports under the CCA are more complicated than they are under the California cap-and-trade program due to the presence of several entities which operate multi-state electrical systems in the Northwest. While the reporting rules identify several of these entities, namely the Bonneville Power Administration and Multi-jurisdictional Retail Providers, they do not address all aspects of how energy may be imported to or from these entities. Further, the reporting rules do not contemplate other import scenarios involving other multi-state entities at all. The undersigned do not believe the Legislature intended to exempt these scenarios. Rather, these unintended omissions were the unfortunate consequence of the short timeframe available for rulemaking between the CCA's adoption and the program start date, as neither Ecology staff nor stakeholders had sufficient time to fully consider the complexity of electricity transactions that may result in electricity imports to Washington. Because failure to address these omissions undermines the environmental integrity of the program and may hinder linkage to California's program, it is imperative that these omitted scenarios are addressed as expeditiously as possible to ensure that electricity imports are appropriately and completely accounted for under the CCA.

For this reason, the undersigned and other electricity market participants have worked over the past months on the attached document in an effort to arrive at a common understanding of how the CCA's rules for electricity imports are intended to work. While further work and consideration are warranted, we believe the interpretation laid out in the document is a starting point that is consistent with the legislation's intent, the program rules and the first jurisdictional deliverer approach.

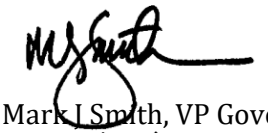
The undersigned entities request a meeting with program staff to further explain our concerns, and the solutions presented in the document. Following that meeting, we request that the Department of Ecology publish formal guidance based on this document for use by EPEs and Verifiers or initiate an expedited rulemaking to address the issues identified.

Respectfully,

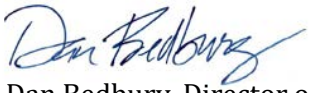
Kevin Lynch, Managing Director, External Affairs
Avangrid Renewables

Kevin M. Holland. Director of Energy Supply
Avista Corporation

Rachel Dibble, Vice President of Bulk Marketing
Bonneville Power Administration

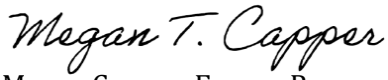


Mark J Smith, VP Government and Regulatory Affairs
Calpine Corporation



Dan Bedbury, Director of Energy Resources
Clark Public Utilities

Heidi Hawkins, Senior Manager, State Regulatory and Legislative Affairs, West
Constellation



Megan Capper, Energy Resources Manager
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Executive Director, on behalf of Morgan Stanley Capital Group Inc.
Morgan Stanley Capital Group

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Western Power Trading Forum

Cc: Bill Drumheller
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Andrew Hayes

Consideration of Electricity Imports and Determination of the Electricity Importer Under the Climate Commitment Act

March 1, 2023

Publication No. 23-02-051

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Publication No. 23-02-051

1. Introduction

For effective implementation of the Washington Climate Commitment Act (CCA), it is critical that all electricity market participants, verifiers, and the Department of Ecology (Ecology) have a common understanding of which electricity transactions are considered electricity imports under the CCA and which entity bears the compliance obligation for those imports. Different interpretations of the rules will result in inaccurate and inconsistent reporting, and may create contract disputes over payment of carbon costs between entities on different sides of the import transaction, lead to adverse verification statements and non-compliance penalties, and undermine liquidity at the Mid-Columbia (MID-C) trading hub. This paper has been prepared to foster a common understanding, to the extent possible, among electricity market participants of the CCA rules for electricity imports and to be the basis for formal guidance to be released by Ecology. While further work and consideration are warranted, the interpretation laid out in the document is a starting point that is consistent with the legislation's intent, the program rules and the first jurisdictional deliverer approach.

The paper proposes an approach for determining when an electricity import into Washington occurs and which entity bears the carbon obligation for electricity imports that are scheduled with e-tags. In the course of preparing the paper, several omissions in the reporting regulations for electric power entities (EPEs) were identified. These omissions pertain to multistate balancing authority areas (BAAs) generally, and to balancing energy provided for resources located in Washington within multistate BAAs. Failure to address these omissions would seriously undermine the environmental integrity of the program and hinder linkage to California's program. For this reason, the paper proposes application of rules for the omitted import scenarios in a manner that is in line with the legislation's intent and consistent with the First Jurisdictional Deliverer (FJD) approach. Because the CCA intends that electricity generated outside the state and consumed within the state be regulated, it would be appropriate for Ecology to issue reporting guidance clarifying that these omissions are in fact regulated imports under the legislation and identifying which entity will be considered the regulated importer. To avoid confusion, such guidance should be incorporated into the reporting regulation via a future rulemaking.

The proposed approach is based on the CCA's reporting rules for EPEs in the context of how electricity is transacted in Washington. It has been developed in extensive consultation with affected EPEs to ensure that the approach results in a level-playing field for similarly-situated entities and consistent treatment of similar import transactions. Particular attention is given to the Mid-Columbia (MID-C) trading hub, and its role in how electricity is imported into, exported out of, and wheeled through the state, and to multistate BAAs, which have not been completely addressed in the reporting regulation. The first section of the paper provides background on the western electricity system, transmission scheduling, and the MID-C trading hub. The latter sections of the paper are structured around three separate questions:

1) Was the electricity generated outside of Washington?
2) Did the electricity sink in Washington? and
3) At which point on the transmission system did imported electricity enter the state and which entity is the importer?

These questions are considered in relation to specific transmission scheduling points to develop a clear understanding of which source and sink points result in an electricity import, and which leg of the physical path of an e-tag is considered the import leg, based on current electricity scheduling practices,

BAAs, and transmission system in the west. As these change, guidance documents will need to be updated. Throughout the document, conclusions regarding application of the electricity import rules are in **bold** text.

The paper does not address imports to serve Washington retail load of the multijurisdictional utilities (PacifiCorp, Avista and PNGC), Bonneville Power Administration (BPA) sales to its Washington Regional Dialogue Net Requirements Customers, nor electricity that is imported through the Western Energy Imbalance Market.

2. Background

2.1. The Western Electric Grid

The Western Interconnection, of which Washington is part, is one of five power grids in North America. It extends across 14 states, 2 Canadian provinces, and Baja California. All the electric utilities within this broad, geographical footprint are tied together and share electricity across the bulk electric system.

The Western Electricity Coordinating Council (WECC) is the entity charged with maintaining reliability of the electrical grid within the Western Interconnect. Currently, there are 40 individual Balancing Authorities (BAs) responsible for balancing their systems by ensuring that electric supply matches load within their BAAs and maintaining system frequency. BAs also coordinate the transmission of electricity across their respective BAAs.

2.1.1. Multi-state BAAs

Several entities in the Northwest operate as the BAs for a BAA that includes generation, transmission, and/or load in more than one state (“multistate BAAs"). Most of these entities also own and operate multistate generation systems, with resources located in two or more states. Some are also Multijurisdictional Retail Providers (MJRPs) with retail load in two or more states. Multistate BAAs that do not have generation or load are none-the-less responsible for balancing their systems, by purchasing and sinking energy to balance their systems as a whole. Some of this balancing energy supports NERC-mandated ancillary services required by resources located in Washington to export firm power from the host BAA. Below are multistate BAAs that have a portion of their load or generation inside and outside the state of Washington. This list may expand in the future, as other entities are actively considering the development of multistate BAAs, potentially with both generation and load inside Washington.

- BPA operates a multistate generation system that includes several dams in Washington. However, the CCA treats the entirety of BPA’s generating system, and its wholesale power purchases, as being located outside of Washington. BPA's Washington load is comprised of its Regional Dialogue firm energy sales to its Washington requirements preference customers and its direct commercial and industrial customers in the state. BPA also sells surplus wholesale energy that can be scheduled to serve load in Washington. As a BAA (BPAT), BPA also provides balancing services for all generators within its footprint, including Washington generators.

- Avista and PacifiCorp have both generation and retail load within Washington, and in other states. In their roles as utilities, these entities are considered MJRPs[1] under the CCA. Both Avista

[1] PNGC is also an MJRP under the CCA and has load of its Washington members in state. However, PNGC is not a BAA and does not own or operate any generation.

and PacifiCorp own and contract for generation located within the state of Washington. PacifiCorp's resources include the Chehalis plant, a share of MIDC and Grant slice. While PacifiCorp traditionally does not utilize these resources for sourcing sales to date, in the future PacifiCorp's may use resources located in the state of Washington when transacting with a Washington utility so as to avoid incurring a compliance cost for those transactions. Avista does sometimes use resources in Washington to source sales. In the future Avista may use resources located in the state of Washington and non-emitting out of state generation when transacting with a Washington utility, so as to avoid incurring a compliance cost for those transactions. As BAAs (AVA, PACW), these entities also provide balancing services for generators within their footprint.

- Portland General Electrics (PGE) has generation within Washington that is part of the metered boundaries of the PGE BAA. While PGE does not have any retail load in WA, PGE does provide energy management services for entities that do serve retail load in WA. PGE's generation in Washington consists of (1) its contracts for shares of hydroelectric projects located at MIDC and (2) the Tucannon River wind farm. PGE's presence as a multistate BAA in WA is limited to the use of pseudo-ties for PGE's generation (i.e., contractual share of hydroelectric projects located in Washington and the Tucannon River wind farm) and a BA to BA adjacency at MID-C that is used solely for scheduling purposes. PGE is responsible for providing any associated balancing energy for the pseudo-tied resources.

- Avangrid operates a multistate generation-only BAA (AVRN) consisting of resources owned and operated by Avangrid and also its contracted shares of hydroelectric projects located at MID-C. While Avangrid has no native load, it provides balancing energy from its generation system and from wholesale purchases to "balance" resources in its BAA.

- Gridforce also operates a multistate generation-only BAA (GRID) but does not own or operate the resources in the BAA. Gridforce provides balancing services for resources within its BAA, and also allows individual generators to sink electricity at their busbars, to displace generator output.

2.1.2. Transmission Scheduling

Electricity must be scheduled on a transmission path from the generating source (the 'Source') to the point where the electricity will be consumed (the 'Sink'). For power that flows between BAAs, the transmission path is scheduled using electronic tags (e-tags) overseen by the National Electricity Reliability Coordinating Council (NERC). The 'Market Path' portion of an e-tag list all the entities that have financially transacted that power (called Purchasing/Selling Entities or PSEs). A PSE can be a generator, buying/consuming utility, or market intermediary.

Each e-tag also shows a 'Physical Path' component. The physical path shows the scheduled amount of energy along with the complete transmission path from the Source, which may be a single generator, or an aggregated generating system, to the Sink, which may be a specific load point, a system load, or a generation sink. Between the Source and Sink, there will be one or more lines on the Physical Path which demonstrate the individual transmission segments between specific Points of Receipt (PORs) and Points of Delivery (PODs) and identifying the PSE responsible for scheduling that leg of transmission.

The first PSE listed on the physical path at the first, or Source, POR will be the resource owner or operator or contractual purchaser of the resource. The last PSE listed at the final, or Sink, POD will typically be a utility or other load-serving entity or a BAA. Sometimes it may be a generator, as some generator's PORs are also PODs. A PSE will be listed on middle segments of the physical path when it has picked up the electricity at one point of the grid and delivered it at another.

Transmission POR and PODs, which are shown on the legs of the physical path between the Source and the Sink, have been developed through extensive consultation within WECC and are associated with discrete substations or groups of substations. Due to the geographic anchoring of the underlying substations, some transmission POR/PODs can be categorized as unambiguously inside Washington state and others as unambiguously outside the state. However, in some cases, the transmission POR/PODs are associated with a group of substations that straddle state lines and therefore cannot be categorized as inside or outside Washington.

Source PORs and Sink PODs are not subject to the same level of validation as transmission PORs and PODs. Rather, they are registered by the source or sink PSE and are directly mapped to specific transmission POR/PODs within a particular BAA. PSEs registering source and sink points are afforded a high degree of latitude regarding the specific name of the Source POR or Sink POD. The first PSE listed on the physical path at the Source POR will be the resource owner or operator. A source POR may represent a discrete generator, or a group of generators. Sink PODs may be discrete loads, system loads or individual generators.

2.1.3. Balancing Energy

BAAs are responsible for balancing electricity supply (generation and transfers into the BAA) with electricity load and transfers out of the BAA. Resource owners contract with the host BAA for the provision of balancing energy in accordance with the BAA's tariff. Balancing energy provided for a generating resource is not scheduled separately from the electricity generated by that resource. Thus, for electricity scheduled from a specific generating resource in one BAA to a sink in another BAA, both the electricity actually generated by the resource and any balancing energy needed to keep the energy schedule originating from the host BAA whole will be included on the same e-tag. A lesser-of analyses comparing actual metered generation output to the schedule volume on the e-tag can be used to quantify the amount of balancing energy provided by a host BAA in a given hour.

2.2. The MIDC Trading Hub

The Mid-Columbia, or simply MID-C, is an area in Central Washington associated with the transmission systems and hydro-electric projects owned and operated by the three public utilities districts (PUDs) in the area (Chelan County PUD, Douglas County PUD and Grant County PUD) and BPA. MID-C is also the name of a wholesale interstate electric trading hub on the Intercontinental Exchange (ICE) platform and contracted bilaterally under enabling agreements directly. In addition to the three PUDs and BPA, several other utilities and other EPEs own or contract for a portion of generation at MID-C or have transmission access to various scheduling points (i.e., transmission POR/PODs) associated with MID-C. Because of the volume of electricity generated by the MID-C hydroelectric projects, and the ability of many other entities to transact there, the MID-C has historically been the most transacted electricity trading hub in terms of volume on ICE in the Western Interconnect for many years. MID-C is also an important location for physical bilateral transactions that are not traded via the ICE exchange and are instead transacted bilaterally through brokers. Although much electricity volume transacted at MID-C

originates from or sinks in Washington, much volume does not. The MID-C is often used to wheel power into, out of, or through Washington and is thus an important physical trading hub for electricity across the Pacific Northwest and Western Interconnect as a whole.

2.3.1. MID-C Transmission POR/PODS and Source PORs and Sink PODs

There are multiple transmission scheduling points associated with MID-C transactions. For BPAT's intra-BAA transmission system, electricity must pass through either MIDCRemote or Northwest Hub (NWH)[2] to reach or leave the MID-C area. Each of the three PUDs (CHPD, DOPD, CGPD) have transmission 'adjacencies'[3] for transfer of electricity between their respective BAA and BPA's (BPAT.CHPD, BPAT.DOPD, BPAT.GCPD). Additionally, these PUDs and several other entities use the MIDC adjacency. This is a single POR/POD created by adjacency agreements in multiple adjacent BAAs — currently the three PUDs, as well as AVAT (Avista), PACW (PacifiCorp), PSEI (Puget Sound Energy), PGE (Portland General Electric) and AVRN (AvanGrid Renewables) — which can be used to schedule energy between any of these BAAs, as well as with BPA's system via MIDCRemote or NWH[4]. EPEs with transmission to or from one of the MID-C scheduling points can move electricity to or away from the MID-C area.

In addition, there are several Source PORs and Sink PODs associated with MID-C transactions, such that transmission schedules on e-tags may originate from, or sink to, these points. These are currently[5]:

- MIDC and CHPD Slice for Chelan's BAA;
- GCPD, SENA_GCPD, and MSCG_GCPD for Grant's BAA;
- DOPD.SYS for Douglas's BAA;
- MIDC for AVAT, PSEI and PGE BAAs; and
- MIDCNNH for the PACW BAA.

In this paper, MID-C with a hyphen is used to refer to the collection of PORs/PODs associated with transmission scheduling in the MID-C area or the area itself. MIDC without the hyphen refers specifically to the MIDC adjacency or to the Source POR/Sink POD.

2.3.2. Hubbing

Because of the large amount of hydroelectric generation capacity and the large number of entities that have transmission access to the area, several entities use MID-C for 'hubbing'. Hubbing is a practice whereby some entities can both source from and sink energy to the MID-C area using either a specific MID-C Source POR/Sink POD within a multistate BAA, or the BAA of one of the MID-C PUDs. These entities have access to generation at MID-C through ownership or offtake contracts from the hydroelectric projects or an energy management agreement with a MID-C PUD. For entities such as PGE that operate a multistate BAA, energy from their share of the hydroelectric projects is 'pseudo-tied[6] to

[2] Columbia Market is also used for reservation of transmission but will not show up on an e-tag. The e-tag schedule would instead show NWH or MIDCRemote.
[3] NERC defines an "Adjacent Balancing Authority" as one "whose Balancing Authority Area is interconnected with another Balancing Authority Area either directly or via a multi-party agreement or transmission tariff." An adjacency establishes a Point of Interconnection or scheduling point that a requesting BA can use on another BA's system.
[4] Transfers between BAA depend on the existence of an adjacency between BAAs, and transmission rights.
[5] Transmission PORs/PODS and source PORS and sink PODs are not static but change over time.
[6] NERC defines a pseudo-tie as "a time-varying energy transfer that is updated in Real-time and included in the Actual Net interchange term (NIA) in the same manner as a Tie Line in the affected Balancing Authorities' Reporting ACE equation (or alternate control processes)'

their BAAs at one of the MID-C scheduling points. In addition to this local generation, entities that hub at MID-C can also sink other electricity purchased at MID-C to their own BAA or a BAA of one of the MID-C PUDs. Hubbing thus enables these entities to take advantage of transmission efficiencies to help balance their systems, or to wheel energy through MID-C to another state on separate tags. For this reason, the MID-C area is sometimes referred to as an 'aggregation point', where entities can 'aggregate' wholesale electricity purchases and sales by both sinking and sourcing energy simultaneously from a MID-C scheduling point.

Avista, PacifiCorp and PGE all use their MID-C POR/PODs within their multistate BAAs to hub at MID-C. Other market participants that can currently hub at MID-C are the MID-C PUDs. Others that can hub at MID-C due to contractual offtake rights to the MID-C hydroelectric projects and/or energy management agreements with one of the PUDs are Avangrid, Morgan Stanley, Shell Energy and Powerex. These may change over time as contracts expire and new ones are put in place.

3. Consideration of Electricity Imports into Washington under the CCA

3.1. Omissions

The clear intent of the CCA is to regulate emissions associated with electricity generated outside the state and consumed in the state. Accordingly, the definitions included in the EPE reporting rules define the electricity importer under several import scenarios. However, several other significant import scenarios have been omitted. It is likely the Legislature did not intend that these omitted scenarios are not regulated under the program. Rather, these unintended omissions were the unfortunate consequence of the short timeframe available for rulemaking between the CCA's adoption and start date, as neither Ecology staff nor stakeholders had sufficient time to fully consider the complexity of electricity transactions that result in electricity imports to Washington. Therefore, it would be appropriate for Ecology to address these omissions in formal EPE guidance, so that the emissions associated with these imports are appropriately and completely accounted under the CCA. These omissions are discussed below, and addressed in the sections that follow, in a manner that is consistent with the reporting rules for other electricity imports.

- *Electricity imports to sink PODs in other multistate BAAs:* The definition of "electricity importer" addresses imports to a final POD in a BAA located entirely in Washington, imports of electricity allocated to serve Washington retail load of customers of MJRPs, and imports by BPA of electricity sold to its public body, cooperative or direct service industrial customers. However, the definition does not address whether transactions that originate or end in other multistate BAAs, such as those of PGE, Gridforce and Avangrid, result in an import to Washington, nor which entity is considered the importer.

- *Electricity imports to discrete Washington loads within BAAs other than BPA:* The electricity importer definition addresses electricity imported to a designated scheduling point (i.e. transmission POD) of a Washington customer within BPA's BAA. The definition does not address imports for other discrete Washington loads, such as Kaiser Aluminum and Pend Oreille PUD within AVAT[7] or in other multistate BAAs.

[7] This load is within the AVAT BAA but is not retail load served by Avista.

- *Electricity import point upstream of designated scheduling point of BPA Washington customers*: The importer definition (WAC 127-441-124(2)(c)(viii)) addresses the electricity importer for imports designated scheduling points of Washington customers within BPA's system when the import is directly from an out-of-state source to that customer. However, the definition does not define the electricity importer when the actual import leg (i.e. where the POR is outside the state and the POD is inside the state) is to another, upstream transmission POR/POD, such as NWH or MIDCRemote. When imported electricity passes through such an upstream transmission POR/POD, it would be inconsistent with the FJD approach to consider the importer to be the Washington customer.

- *Balancing Energy provided by multistate BAs for Washington resources.* The reporting rule requires EPEs to conduct a lesser-of analysis for electricity imported from zero emission resources located outside Washington to determine the volume (and any associated emissions) of balancing energy provided for these resources. The rule does not require the same analyses for resources located within Washington that receive balancing services from BPA, or another multistate BA. While the output of these resources and any associated emissions will be captured under the CCA as facilities, any balancing energy provided by BPA or other multistate BAs must be considered an import because most of these resources in these BAAs and/or any wholesale purchases are not captured under the CCA. Because any balancing energy will be on the same e-tag[8] as the output of the generators, if the energy sinks inside Washington, the emissions associated with the imported balancing energy will be missed under the CCA, unless a lesser-of analysis is required when the output of these resources sinks in Washington. Consideration is needed of the appropriate emission factor to be assigned to balancing energy supplied by BPA or other multistate BAs.

Multistate BAAs are not well addressed in the regulation. Failure to address these BAA through guidance or rulemaking risk significant emission leakage and unintended consequences due to uncertainty in the electricity markets. To ensure accurate and complete emission reporting, Ecology should work with verifiers and entities that operate these BAAs to ensure accurate accounting of emissions for imports associated with the multistate systems.

3.2. Determination of whether a generation source is located outside of Washington

To determine which entity bears the compliance obligation for imported electricity, it is first necessary to determine whether a particular transaction results in an electricity import, as defined by the CCA's reporting rule. Paragraph (2)(g) of WAC 173-441-124 defines imported electricity as "electricity generated outside Washington state with a final point of delivery within the state." The first question is thus "was electricity generated outside of Washington?" If the answer is no, there is no electricity import and no carbon obligation as a result of the transaction.

Consideration of source PORs is necessary to determine whether electricity was generated outside of the state, subject to the following rules and caveats.

[8] The physical path of the e-tag would show the Washington generator within BPA's transmission system to a Washington-only BAA, or to a Washington load or sink point within one of the multistate BAAs. The tag itself will not allow determination of what portion of the tag volume was generated by the resource, and what portion is BPA balancing.

3.2.1. Electricity that must be Considered to Originate outside Washington

- **Electricity sourced from BPA's generation system is considered outside of Washington**[9]. (Source PORs: BPAPower or BPASlice) (See example tags 8,16,20, 26, 28 and 33.)

- **Electricity sourced from a resource located outside of Washington within a multistate generation system is considered to have originated outside Washington**. (See example tags 29 and 31.)

- **Electricity sourced from a composite Source POR of a multistate generation system is considered to be generated outside Washington, unless that entity demonstrates that emissions are separately accounted**. Many entities that operate BAAs can sell wholesale electricity from their aggregated generation system as a whole (i.e. their own resources and wholesale purchases) from a 'composite' source POR representing the output of multiple resources rather than the output from a specific resource. For multistate generation systems, these composite source PORs can represent the output of resources located both inside and outside Washington[10]. When an e-tag originating from a composite source PORs that represents both Washington and non-Washington resources, it is not possible to determine from the e-tag alone whether the energy originates from Washington resources only. When electricity sourced from these composite PORs cannot unambiguously be shown to have been sourced from Washington resources only it must be considered as generated outside of Washington to ensure that emission leakage does not occur. (See example tags 5, 10, 12, 14, 18, 23, 24, 27, and 30.)
    - While PacifiCorp, Avista, Avangrid and PGE are currently the only entities of which we are aware that source from composite PORs which could represent generation from resources located both inside and outside Washington (PacifiCorp Source PORs: MIDC-NNH, PACW-NNH, PACE-NNH, Avista Source PORs: AVA.SYS, MIDC; Avangrid POR:AVRN.SYS, PGE POR: MIDC), there may be other entities in the future.

- **Balancing energy provided for a Washington resource located inside a multistate BAA must be considered to have originated outside Washington**. (See example tag 34.)

3.2.2. Electricity That must be Considered to Originate Inside Washington

- **Electricity sourced from a composite Source POR representing aggregate generation of resources for which any associated emissions are separately accounted must be considered to have originated inside Washington.** Entities that source from a composite Source POR, such as MIDC-NNH, representing generation both inside and outside Washington may be able to demonstrate that the composite POR represents energy sourced from Washington resources. For instance, an entity operating a multistate generation system could create a composite POR representing generation solely of its Washington resources and of non-emitting resources within

[9] Reference paragraph 2(g)(iii)
[10] In recognition of this, the California Air Resources Board (CARB) treats electricity imported into the state by PacifiCorp via the day-ahead market as unspecified.

its generation system. In such case, supporting hourly meter data for these resources should be required to demonstrate that all emissions have been accounted for fully. Alternatively, an entity could conduct an analysis, similar to the lesser-of analysis for balancing energy, to compare the volume of MW generated by Washington resources to the schedules to and from that POR/POD. If an entity operating a multistate generation system is able to demonstrate that a composite Source POR represent the aggregated output of *only* Washington resources for which any emissions are separately accounted, then that electricity, or portion of that electricity from the source POR, should be considered to have originated in-state. (See Appendix 1 for an example of a lesser-of analysis for composite POR from as multistate BAA.)

- **Electricity sourced from a composite Source POR of a multistate generation system where a Washington resource is identified and verifiable must be considered to have been generated inside Washington.** If an entity operating a multistate generation system sells from a particular resource, as would be the case if the entity sells specified electricity or if electricity from a particular resource is transmitted using BPA point to point transmission, then the individual resource will be identified on the e-tag as either the Source, in the comment field or in the MISC/token field. n such a case, if the resource is clearly located in Washington, the electricity must be considered to have originated within Washington. (See example tag 6 and 18.)

- **Electricity sourced from a Washington resource within a multistate generation system and owned and operated by an entity other than the entity operating the multistate generation system must be considered to have generated within Washington**. For resources located within multistate generation systems but owned/operated by other entities, the resource will be identified on the e-tag by either the Source or in comment or MISC/token field of the tag. In addition, the PSE at the source POR may be the resource owner operator or contract holder, not the entity that operates the multistate generation system. **Only electricity sourced by resources that are physically located outside the state border would be considered to have been generated outside of Washington.** (See example tag 18.)

- **Electricity sourced from the MID-C Public Utility Districts (Chelan, Grant and Douglas) BAAs (Source BAs: CHPD, GCPD, DOPD) is considered to have originated within Washington, regardless of whether the electricity was sold by these utilities, or by another entity with a contractual share of these projects**. (Source PORs: MIDC, CHPD Slice, GCPD, DOPD.SYS, OKPD.SYS, MIDC, SENA_GCPD, MSCG_GCPD). (See example tag 1.)

3.3. Determination of whether electricity sinks in Washington

Once electricity is determined to be generated outside of Washington, consideration of the location of sink PODs is needed to determine whether the electricity was consumed in Washington.

3.3.1. Electricity not Considered to Sink in Washington

- **Any electricity that BPA purchases and sinks in its system is not considered to have sunk in Washington.** Instead, these purchases will be factored into the calculation of BPA's Asset

Controlling Supplier emission factor. The quantity of electricity imported will equal the volume of PBA Sales into Washington. (BPA sink PODs: BPALOAD, BPAPOWER, BPALOSS, BPAUNSCHD**)** (See example tag 7.)

- **Any electricity that an MJRP (Avista, PacifiCorp and PNGC) purchases, and which sinks to their respective systems or scheduling points is <u>not</u> considered to have sunk in Washington**. Instead, these purchases will be factored into the calculation of each entities common system pool emission factor. Their imports to Washington will be determined by apportioning their Washington retail load in accordance with the emissions calculation for MJRP.[11] (PACW Sink PODs: PACW-NNH, MIDC-NNH; AVAT Sink PODs: AVA.SYS, and MIDC; BPAT Sink POD: PNGC) (See example tags 4, 5, 8 and 10.)

- **Electricity that sinks at a Washington sink POD point of a multistate BAA with no retail load in Washington is not considered to sink in Washington unless the POD is a sink POD of a Washington generator.** (AVRN Sink POD: AVRN.Sys, PGE Sink PODs: MIDC) (See example tags 3 and 9.)

- **Electricity that is demonstrated to be wheeled through the state under a hubbing arrangement is not considered to sink in Washington.** If an entity that is able to demonstrate through generation meter data of Washington resources and e-tags for transfers into and out of a MID-C BAA, or other BAA, for the same hour that electricity was wheeled through the state to POD outside the state, that electricity is not considered to sink in Washington. (See the example in Appendix 2.)

3.3.2. Electricity Considered to Sink in Washington

- **Electricity sunk at scheduling points for a discrete Washington load within a multistate BAA, that is not served by an MJRP, is considered to sink in Washington.** Electricity imported to serve for Washington load within a multistate BAAs, such as Kaiser Aluminum and Pend Oreille PUD (AVAT Sink PODs: KAISER, POPD), that is not retail load of an MJRP is considered to be consumed within Washington. It is not separately apportioned in the MJRP retail load import calculation. (See example tag 25/)

- **Wholesale electricity sunk at designated scheduling points (i.e., transmission POR/PODs) of Washington utilities or commercial and industrial load within BPA's BAA are considered to have sunk in Washington. (**Sink PODs: AlcoaIntalco, Benton, BigBend, CentralisCTY, , Clallam, Clark, Cowlitz, Franklin, GHPUD, Inland, LewisPUD, MasonPUD3, Milton, OKPD.SYS, ORCAS, PacificPUD, Parkland, Richland, Seatac, PortTownsend, Richland, Snohomish, VERA**).** [12] (See example tags 12, 14, 17,18 and 23.)

[11] WAC 173-441-124(3(b)(iii) and 3(b)(iv)
[12] WAC 173-441-124(2)(c)(viii))

- **Electricity provided as balancing services by a multistate BA for a resource located in Washington, the output of which is scheduled to a final POD in Washington, is considered to sink in Washington.** A lesser of analysis comparing the resource metered output to the schedule volume would be necessary to determine the volume of balancing electricity. (See example tag 34.)

- **Electricity delivered to a designated sink POD of a Washington generator within a multistate BAA is considered to sink in Washington.**

- **Electricity that sinks at all PODs within BAAs located entirely within Washington is considered to have sunk in Washington.** (BAAs:Chelan, Douglas, Grant, Puget, Seattle, and Tacoma (Example tags 2, 6, 13, 15, 16, 19, 20, 21, 22, 24, 26, 27, 28, 29, 30, 31, 33 and 34)

3.4. At which point of transmission system does imported electricity enter the state? Which entity is the importer?

Identification of where in the transmission system that electricity enters the state is necessary to identify the leg of the physical path of the e-tag where the point of receipt is outside of the state and point of delivery is inside the state[13]. Although there are literally hundreds of transmission PORs/PODs in the Northwest, it is not necessary to consider the location of all of these to determine where imported electricity enters the state. This is because, except for electricity imported through the adjacency between the BC Hydro and the Puget Sound Energy transmission systems, all electricity is imported into Washington via the transmission systems of BPA (BPAT), PacifiCorp (PACW) and Avista (AVAT).[14] Determination of the electricity import points can be made by considering the scenarios by which electricity is transmitted across these systems to a final sink point in Washington. The electricity import point is the *first* POR/POD that is unambiguously located within Washington. The electricity importer (FJD) would be the PSE on the leg of the physical path to that electricity import point. (In some cases, consideration of an energy management agreement or power purchase agreement may additionally be necessary to determine the electricity importer. (See example tag 33)

3.4.1. BC Hydro Transmission System to Puget Transmission System

Because the BC.US.Border represents the adjacency between the BC Hydro & Power Authority Transmission System and the transmission systems of BPA and Puget Sound Energy, it cannot be considered in state. Therefore, the **PSE on the leg of the physical path between BC.US.BORDER and PSEI.Sys is the electricity importer.** (See example tag 19)

[13] Although this language is used in the reporting rule with respect to electricity scheduled to a final POD in a balancing authority located entirely in Washington, for consistency with how electricity transactions are treated, it should apply to all import scenarios, except for BPA's sales to preference customers, retail load of MRJPs and balancing energy for Washington resources.

[14] The OASIS OATI transmission map shows the pathways by which electricity can be schedule to Washington. However, the geographic location of individual scheduling points are only approximate, and should not be relied upon to determine whether a point is located inside the state.

3.4.2. BPA Transmission

Electricity imported via BPA's transmission system may originate from BPA's generation system, from other resources within BPA's BAA that are owned and operated by other entities, or from resources located outside of BPA's BAA. Regardless of the source, the electricity will enter Washington at one of a) a BPAT adjacency with a Washington-only BAA, b) a designated scheduling point of a Washington load with BPA's system or c) a sink POD for generation within a multistate BAA located within BPA's transmission system as shown below.

- *Electricity sourced from BPA Generation:* For electricity sold by BPA the physical path of the e-tag for the portion within BPA's transmission system will show only the source (Source PORs: BPAPOWER or BPASLICE), and one of:
    - a BPAT adjacency with a Washington-only BAA (BPAT.CHPD, BPAT.DOPD, BPAT.GCPD, BPAT.PSEI, BPAT.TPU, BPAT.SCL, or SCL.SYS);
    - one of BPA's MID-C scheduling points (MIDCRemoteE, NWH);
    - a designated scheduling point of a Washington load with BPA's system (AlcoaIntalco, Benton, BigBend, CentralisCTY, , Clallam, Clark, Cowlitz, Franklin, Inland, LewisPUD, MasonPUD3, Milton, OKPD.SYS, ORCAS, PacificPUD, Parkland, POPD, Richland, Seatac, PortTownsend, Richland, SNPD.System, VERA); or
    - a sink POD for generation within a multistate BAA (GRID POD: Centralia) inside BPA's transmission system.

- *Electricity sourced from a resource within BPA's BAA:* For electricity sourced from a resource owned and operated by another entity within BPA's BAA, the physical path on the e-tag for the portion within BPA's transmission system will show the source POR (which would not be BPAPOWER or BPASLICE) to one of the same points listed above.

- *Electricity sourced from a resource outside of BPA's BAA:* For electricity sourced from outside BPA's BAA that sinks in Washington, the physical path of the portion of the e-tag within the BPA transmission system will show the BPA interchange where the electricity enters BPA's system (e.g. BPAT.PGE, COB, NOB, Garrison, LAGRANDE, BPAT.NWMT, BC.US Border, BPAT.PACW, AVA.BPAT, etc.) and, for south-north transmission, and intermediate point of either Big Eddy or John Day. From there, the physical path will follow that of electricity sourced from BPA generation or resource within BPA's BAA, as above.

As these scenarios demonstrate, for electricity imported via BPA transmission, the *only* scheduling points within BPAT that are inside Washington are the adjacencies with the Washington-only BAAs, BPA's MID-C Scheduling points, the designated scheduling points for Washington load with BPA's BAA, or sink PODs for individual Washington generators within the multistate BAAs within the BPA transmission system. Because BPA's transmission system overlaps the state border, the imported electricity will have crossed the state border into Washington farther upstream in BPA's transmission system before it reaches one of these instate points.

Thus, the electricity importer is the PSE on the leg of the physical path to the *first* of

a. **an adjacency with one of the Washington-only BAAs,**
b. **MIDCREMOTE or NWH,**
c. **a designated scheduling point of a Washington load with BPA's BAA**
d. **or a Washington generator sink POD.** (Example tags 13, 16, 17, 19, 22, 24, 25, 27, 28 and 29)

If that PSE is BPA, until such a time that BPA elects to become the FJD, the electricity importer is:

- **For BPA sales wholesale market, the PSE on the next leg of the physical path downstream of BPA on the e-tag. If there is no additional PSE on a transmission leg, the importer is the electric utility or the generation balancing authority.** (See example tag 20, 21 and 26.)
- **For BPA sales to its Washington Requirements Preference customers, the public body or cooperative customer.** (See example tag 32.)

3.4.3. PACW Transmission

Electricity that is imported to Washington via the PACW transmission system enters directly via the MIDC adjacency, or indirectly via the adjacency with BPAT at BPAT.PACW or with AVAT at Drycreek.

- ***Electricity sourced from PacifiCorp's Generation Portfolio:*** For electricity sold by PacifiCorp that sinks in Washington, the physical path of the e-tag for the portion within the PACW transmission system will show only the source POR (PACW-NNH or MIDC-NNH), and one of a) the adjacency with BPA (BPAT.PACW,), b) the MIDC adjacency or c) the adjacency with AVAT at DRYCREEK. PACW-NNH source would be used for transmission to load that cannot schedule via the MIDC adjacency; theMIDC-NNH source is used for transmission to the MIDC adjacency, for Washington load that can pick up at MIDC. The adjacency at DRYCREEK would be used for electricity that sinks in Avista's BAA[15].

- ***Electricity sourced from a resource that is not a PacifiCorp system resource within PACW BAA:*** For electricity sourced from a resource owned and operated by another entity within the PACW BAA, the physical path on the e-tag for the portion within the PACW transmission system will show the source POR (PACW-NNH or MIDC-NNH would <u>not be</u> the source) and transmission either directly to BPAT.PACW or to MIDC. (The leg from BPAT.PACW to a Washington sink would be on BPA's transmission system, as discussed above.)

- ***Electricity sourced from a resource outside of PACW BAA:*** For electricity sourced from outside the PACW BAA that sinks in Washington, the physical path of the portion of the e-tag within the PACW transmission system will show the PACW interchange where the electricity enters (e.g. HURR) directly to BPAT.PACW, MIDC or DRYCREEK.

Electricity imported to Washington via PACW transmission must pass through one of three points: MIDC, BPAT.PACW or Drycreek. As with BPA's MID-C scheduling points, the MIDC adjacency is clearly within Washington. **Again, since the actual location where electricity imports cross the border would be further upstream in PACW's transmission system, the PSE on the leg of the physical path to the MIDC**

[15] As discussed above, electricity that is purchased by Avista and sinks within their BAA cannot be considered an import under the CCA.

adjacency is the importer. (Example tags 15 and 23) When MIDC-NNH is the Source POR, the import into Washington State should occur on the source line of the e-tag, because electricity sourced from this POR is delivered directly to the MIDC adjacency.

Because BPAT.PACW is not unambiguously located in Washington and the fact that any electricity that is imported via BPAT.PACW must pass through one of points on BPA's transmission systems within Washington (see discussion under BPA transmission above), **the PSE on the leg of the physical path within PACW transmission system to BPAT.PACW is <u>not</u> be the importer**. Rather, the PSE that delivers to the Washington scheduling points inside BPA's system should be considered the responsible importers, as discussed under BPA transmission above. (See example tag 24)

(Electricity that passes through PACW to AVAT at DryCreek and is purchased by Avista would not be considered an import.)

3.4.4. AVAT Transmission

- ***Electricity sourced from Avista Generation System:*** For electricity sold by Avista, the physical path of the e-tag for the portion within the AVAT transmission system will show only the source (AVA.SYS, MIDC) and the adjacency with BPA (AVA.BPAT), the MIDC adjacency (which would also be the source POR), an adjacency with a Washington-only BAA (AVA.PUD, Chelan.AVA), GRANT.AVA) or the adjacency with PACW at Drycreek. As with the PACW transmission system, the MID-C adjacency is used for transmission to other entities that schedule from the MID-C hub.

- ***Electricity sourced from a resource within the Avista BAA:*** For electricity sourced from a resource owned and operated by another entity within the Avista BAA, the physical path on the e-tag for the portion within the Avista transmission system will show the source POR directly to one of the adjacencies discussed above.

- ***Electricity sourced from a resource outside of AVA BAA:*** For electricity sourced from outside the Avista BAA that sinks in Washington, the physical path of the portion of the e-tag within the Avista transmission system will show the AVAT interchange where the electricity enters (e.g. LOLO,AVA.NWMT, or AVA.BPAT) directly to one of the adjacencies above.

For electricity imported via the Avista transmission system at the MIDC adjacency or an adjacency with a Washington-only BAA, the PSE on the leg of the physical path to that scheduling point should be considered the responsible importer. (See example tags 12.) When MIDC is the Source POR, the import into Washington State should occur on the source line of the e-tag, because electricity sourced from this POR is delivered directly to the MIDC adjacency.

Because AVAT.BPAT is not unambiguously located in Washington, and electricity imported via AVA.BPAT must pass through one of points on BPA's transmission systems within Washington discussed above, **the PSE on the leg of the physical path to AVA.BPAT should not be considered the responsible importer.** Rather, this would fall on the PSE that delivers from AVA.BPAT to one of the Washington scheduling points identified under the discussion of BPA's transmission system. (See example tags 13 and 22.)

(Electricity that passes through AVAT to PACW at DryCreek and is purchased by PacifiCorp would not be considered an import.)

3.4.5. Balancing energy

In keeping with the FID approach**, for balancing energy provided by a multistate BAA to a resource located in Washington, the output of which sinks in Washington, the PSE on the leg of the Physical Path** to the *first* of an adjacency with one of the Washington-only BAAs, one of BPA's MID-C Scheduling points, a designated scheduling point of a Washington load within a multistate BAA **is the importer.** (See example tag 34.)

4. Summary of CCA Rules Interpretation

Electricity Source Location

- **Electricity sourced from BPA's generation system is considered outside of Washington.**
- **Electricity sourced from a resource located outside of Washington within a multistate generation system is considered to have originated outside Washington**.
- **Electricity sourced from a composite Source POR of a multistate generation system is considered to be generated outside Washington, unless that entity demonstrates that emissions are separately accounted**.
- **Balancing energy provided for a Washington resource located inside a multistate BAA is considered to have originated outside Washington**.
- **Electricity sourced from a composite Source POR representing aggregate generation of resources for which any associated emissions are separately accounted is considered to have originated inside Washington.**
- **Electricity sourced from a composite Source POR of a multistate generation system where a Washington resource is identified and verifiable is considered to have been generated inside Washington.**
- **Electricity sourced from a Washington resource within a multistate generation system and owned and operated by an entity other than the entity operating the multistate generation system is considered to have generated within Washington**.
- **Electricity sourced from the MID-C Public Utility Districts (Chelan, Grant and Douglas) BAAs (Source BAs: CHPD, GCPD, DOPD) is considered to have originated within Washington, regardless of whether the electricity was sold by these utilities, or by another entity with a contractual share of these projects**.

Electricity Sink Location

- **Any electricity that BPA purchases and sinks in its system (BPA sink PODs: BPAUNSCHD) is not considered to have sunk in Washington**
- **Wholesale electricity sunk at a designated scheduling point (i.e., transmission POR/POD) of Washington utilities or commercial and industrial load within BPA's BAA is considered to have sunk in Washington.**
- **Any electricity that an MJRP (Avista, PacifiCorp and PNGC) purchases, and which sinks to their respective systems or scheduling points is not considered to have sunk in Washington**.
- **Electricity sunk at scheduling points for a discrete Washington load within a BAA operated by an MJRP, but not served by that MJRP, is considered to sink in Washington.**
- **Electricity that sinks at a Washington sink POD point of a multistate BAA with no retail load in Washington is not considered to sink in Washington unless the POD is a sink POD of a Washington generator.**
- **Electricity that is demonstrated to be wheeled through the state under a hubbing arrangement is not considered to sink in Washington.**
- **Electricity sunk at scheduling points for a discrete Washington load within a multistate BAA that is not served by an MJRP is considered to sink in Washington**

- **Electricity provided as balancing services by a multistate BA for a resource located in Washington, the output of which is scheduled to a final POD in Washington, is considered to sink in Washington.**
- **Electricity delivered to a designated sink POD of a Washington generator within a multistate BAA is considered to sink in Washington.**
- **Electricity that sinks at all PODs within BAAs located entirely within Washington is considered to have sunk in Washington.**
- **Electricity delivered to a sink POD of a Washington generator within a multistate BAA is considered to sink in Washington.**
- **Electricity that sinks at all PODs within BAAs located entirely within Washington is considered to have sunk in Washington (except BC.USBorder on Puget System).**

Location of Electricity Transmission Points

- **The MID-C Scheduling points within BPA's BAA are considered within Washington.**
  - **Current POR/PODS: MIDC Remote, NWH**
- **The MIDC adjacency between the PACW, Avista, PSE and MID-C public utilities (Chelan, Douglas, Grant) transmissions systems is located within Washington.**
  - **Current adjacency: MIDC**
- **The adjacencies between BPA's transmissions system and the transmission systems of the Washington-only BAAs are considered within Washington.**
  - **Current Adjacencies: BPAT.CHPD, BPAT.DOPD, BPAT.GCPD, BPAT.PSEI, BPAT.TPU, BPAT.SCL, or SCL.SYS**
- **The adjacencies between BPA's transmission system and the transmission systems of PACW and Avista are <u>not</u> considered within Washington.**
  - **Current adjacencies: BPAT.PACW, AVA.BPAT**
- **The adjacency between BC Hydro's transmissions system and the transmissions systems of Puget Sound Energy and BPA is <u>not</u> considered in Washington.**
  - **Current adjacency: BC.US.Border**

Identification of the FJD for imported electricity

- **For imports from BC.US.Border to PSEI, the PSE on the leg of the physical path between BC.US.BORDER and PSEI.Sys is the electricity importer.**
- **For electricity imported via the BPAT transmission system, the electricity importer is the PSE on the leg of the physical path to the *first* of**
  - **an adjacency with one of the Washington-only BAAs,**
  - **MIDCREMOTE or NWH,**
  - **a designated scheduling point of a Washington load with BPA's BAA**
  - **or a Washington generator sink POD.**
- **If that PSE is BPA, until such a time that BPA elects to become the FJD, the electricity importer is:**
  - **For BPA wholesale market sales, the PSE on the next leg of the physical path downstream of BPA on the e-tag. If there is no additional PSE on a transmission leg, the importer is the electric utility or the generation balancing authority.**
  - **For BPA sales to its Washington Requirements Preference customers, the public body or cooperative customer.**

- **For electricity imported via the PACW transmission system at the MIDC adjacency the PSE on the leg of the physical path to the MIDC adjacency should be considered the responsible importer.**
- **The PSE on the leg of the physical path within PACW transmission system to BPAT.PACW is not an importer.**
- **For electricity imported via the Avista transmission system at the MIDC adjacency or an adjacency with a Washington-only BAA, the PSE on the leg of the physical path to that scheduling point is importer.**
- **The PSE on the leg of the physical path to AVA.BPAT is not an importer.**
- **For balancing energy provided by a multistate BAA to a resource located in Washington, the output of which sinks in Washington, the importer is the PSE on the leg of the Physical Path to the *first* of**
    - **an adjacency with one of the Washington-only BAAs,**
    - **MIDCRemote or NWH, or**
    - **a designated scheduling point of a Washington load within a multistate BAA.**

Attachment

Appendix I: Lesser of Analysis -- Composite Source POR

Appendix 2: Lesser of Analyses -- Wheel-Through

Appendix 3: Evaluation of Tag Examples

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Attachments

Appendix 1: Lesser-Of Analysis for a Composite Source POR

The tags that follow show electricity sinking to and sourcing out of PGE's BAA at MIDC for the hour ending 10:00 on 1/19. Under the general rule proposed in this paper, as an entity with generation both inside and outside Washington but no Washington retail load, PGE's purchase at MIDC captured in tag PGEN546 would not be considered to have sunk in Washington, and PGE's sale to Douglas PUD reflected on tag PGEN538 would be considered an import.

Alternatively, PGE could provide a lesser-of analysis to demonstrate that the transfer of energy reflected on PGEN538 was generated by Washington resources and should therefore not be considered an import under the CCA. Such analysis is necessary to maintain the environmental integrity of the program by providing a full accounting of hourly e-tags into and out of that POR/ POD and should be backed by documentation of hourly metered generation and contracts for Washington resources.

Provided there were no untagged energy transfers and PGE can provide supporting meter data, PGE's tags demonstrate that out of the 330 MW of energy into its BAA at MIDC in that hour, 305 MW was generated by Washington resources[1]. By comparing the tag volume for the sale to Douglas (102 MW) to the 305MW generated by Washington resources, it can be determined that this sale was in fact backed by Washington generation. Since the electricity originated in Washington, the transfer of energy to Douglas should not be considered an import.

However, if the total generation by Washington resources was less than the amount transferred to Douglas, only the MW of actual generation should not be considered an import. For example, if the total generation received from the three hydroelectric projects was reduced to 75MW, and the schedule to Douglas remained 102 MW, then 27 MW (102-75) would be considered an import to Washington. Thus, for energy that sinks in Washington, the portion that is considered to have originated in Washington should be the lesser of the actual (metered) generation by Washington resources and the e-tag volume. Alternatively, if the total generation of the Washington resources remains at 305 and PGE elected to allocate 220 MW of generation from the Washington resource as an export via e-Tag for delivery to another market participant or load in another state[2], PGE could modify the lesser-of analysis such that only 85 MW of Washington generation is considered to back the transfer to Douglas on tag PGEN538.

This analysis could also be modified to include metered generation of non-emitting resources located outside Washington. In this case, the entity would need to demonstrate that specified energy is not double counted in the entity's sales or in the calculation of an Asset-Controlling Supplier or Common System Pool emission factor.

[1] In this example, PGE is demonstrating output from its share of Washington generation resources. The analysis can also extend to tags where the electricity is sourced from other Washington-only BAAs.
[2] Energy from a Washington resource that is attributed to load in Washington may not be eligible to be claimed as a specified import or purchase under a cap and trade or clean energy program in other states. Such claims would be subject to verification by regulators in those states.

Energy In					
Tag	Label	MW	Source	Sink	
PGEN413	Wells Pseudo-Tie	209	PGE_DOPD	MIDC	
PGEN412	Rocky Reach Pseudo-Tie	19	PGE_DOPD_CH	MIDC	
PGEN411	Grant Pseudo-Tie	77	PGE_GCPD	MIDC	
Total Washington Generation		305			
PGEN546	Purchase	25	MIDC (AVA)	MIDC	
Total Energy In		330			
Energy Out					
PGEN538	Sale	102	MIDC	DOPD.SYS	
Total Energy out to Washington		102			
266489	Sale	2	MIDC	MIDC (AVA)	
PGEN414	Oregon Load	226	MIDC	PGE.LOAD	
Total Energy out		330			

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Energy In e-tags

1. Wells Pseudo tie

PGE_PGEMPG PGEN413 _PGE Start/Stop Time: Jan 19, 2023 00:00 - Jan 20, 2023 00:00 PST (All times are in

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)
PGE	PGEMPG	PGEN413	PGE	Pseudo-tie	PST	No	360 / 5830	360 / 5830

Contract No: DGLS Pseudo

PSE Comment: DGLS Pseudo

Multiple Base Profile: No

Market Path

PSE	Product	Contract	Misc Info
PGEMPG	G-F		No
PGEMPG	L		No

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
PGE			PGEMPG (1)	Source:	PGE_DOPD			No	
	DOPD		PGEMPG (1)	DS2	MIDC	DOPD		No	
	PGE		PGEMPG (1)	MIDC	PGE.MIDC	PGE		No	
PGE			PGEMPG (2)	Sink:	MIDC			No	

Current Energy and Transmission Profiles - MW (out of)

☑ MW ☑ Reservation ☑ Trans Total

			Gen	DOPD			PGE		
Date	Start	Stop	MW	Trans	NOR	MW	Trans	108	MW
01/19	00:00	01:00	281	477	477	281	477	477	281
01/19	01:00	02:00	258	477	477	258	477	477	258
01/19	02:00	03:00	164	477	477	164	477	477	164
01/19	03:00	04:00	174	477	477	174	477	477	174
01/19	04:00	05:00	154	477	477	154	477	477	154
01/19	05:00	06:00	213	477	477	213	477	477	213
01/19	06:00	07:00	276	477	477	276	477	477	276
01/19	07:00	08:00	286	477	477	286	477	477	286
01/19	08:00	09:00	228	477	477	228	477	477	228
01/19	09:00	10:00	209	477	477	209	477	477	209

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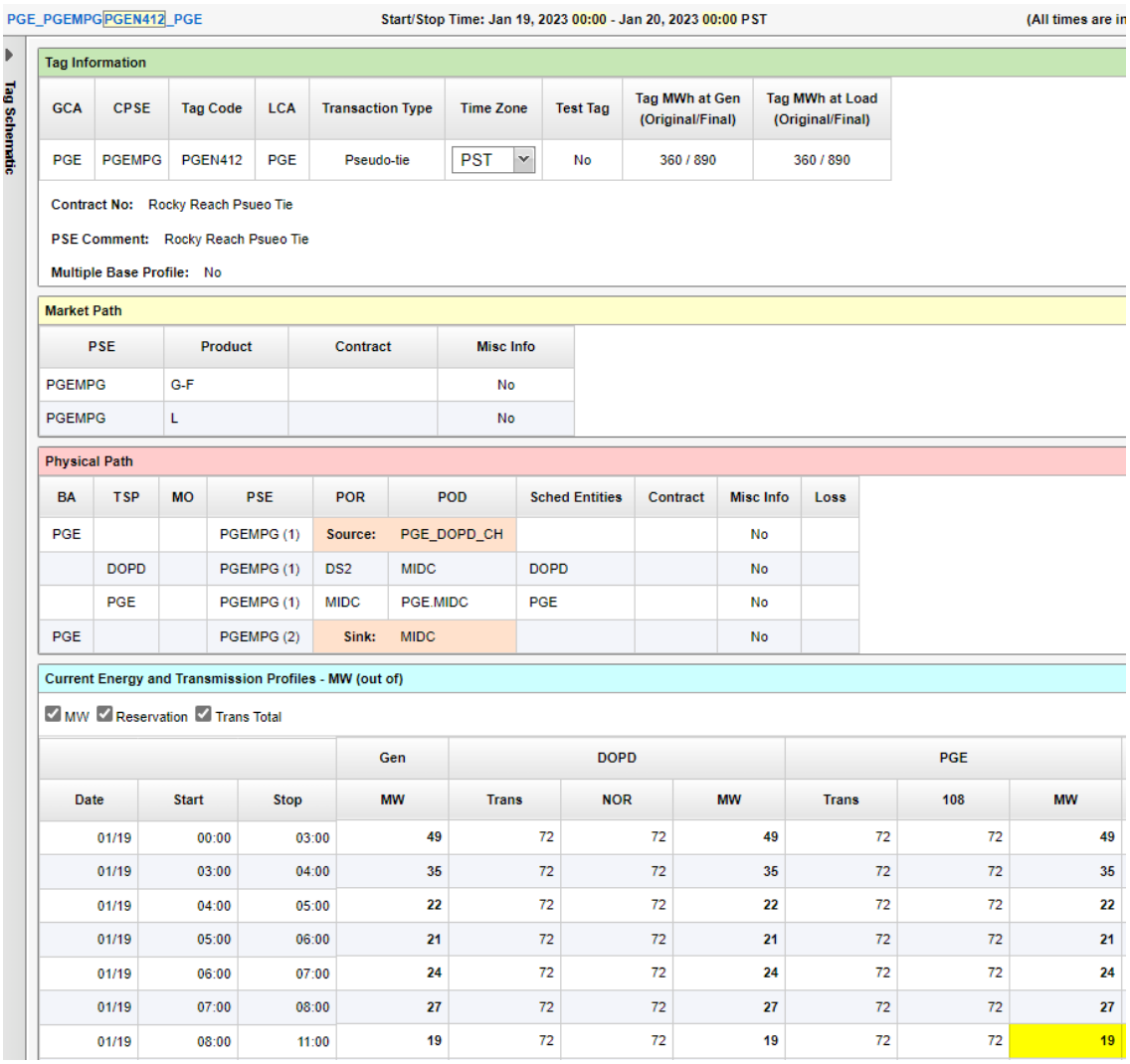
2. Rocky Reach Pseudo Tie



PGE_PGEMPGPGEN412_PGE Start/Stop Time: Jan 19, 2023 00:00 - Jan 20, 2023 00:00 PST (All times are in

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)
PGE	PGEMPG	PGEN412	PGE	Pseudo-tie	PST	No	360 / 890	360 / 890

Contract No: Rocky Reach Psueo Tie

PSE Comment: Rocky Reach Psueo Tie

Multiple Base Profile: No

Market Path

PSE	Product	Contract	Misc Info
PGEMPG	G-F		No
PGEMPG	L		No

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
PGE			PGEMPG (1)	Source:	PGE_DOPD_CH			No	
	DOPD		PGEMPG (1)	DS2	MIDC	DOPD		No	
	PGE		PGEMPG (1)	MIDC	PGE.MIDC	PGE		No	
PGE			PGEMPG (2)	Sink:	MIDC			No	

Current Energy and Transmission Profiles - MW (out of)

☑ MW ☑ Reservation ☑ Trans Total

			Gen	DOPD			PGE		
Date	Start	Stop	MW	Trans	NOR	MW	Trans	108	MW
01/19	00:00	03:00	49	72	72	49	72	72	49
01/19	03:00	04:00	35	72	72	35	72	72	35
01/19	04:00	05:00	22	72	72	22	72	72	22
01/19	05:00	06:00	21	72	72	21	72	72	21
01/19	06:00	07:00	24	72	72	24	72	72	24
01/19	07:00	08:00	27	72	72	27	72	72	27
01/19	08:00	11:00	19	72	72	19	72	72	19

3. Grant Pseudo-tie

PGE_PGEMPG PGEN411 _PGE Start/Stop Time: Jan 19, 2023 00:00 - Jan 20, 2023 00:00 PST (All times are in

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)
PGE	PGEMPG	PGEN411	PGE	Pseudo-tie	PST	No	1561 / 2059	1561 / 2059

Contract No: Grant Pseudo

PSE Comment: Grant Pseudo

Multiple Base Profile: No

Market Path

PSE	Product	Contract	Misc Info
PGEMPG	G-F		No
PGEMPG	L		No

Physical Path

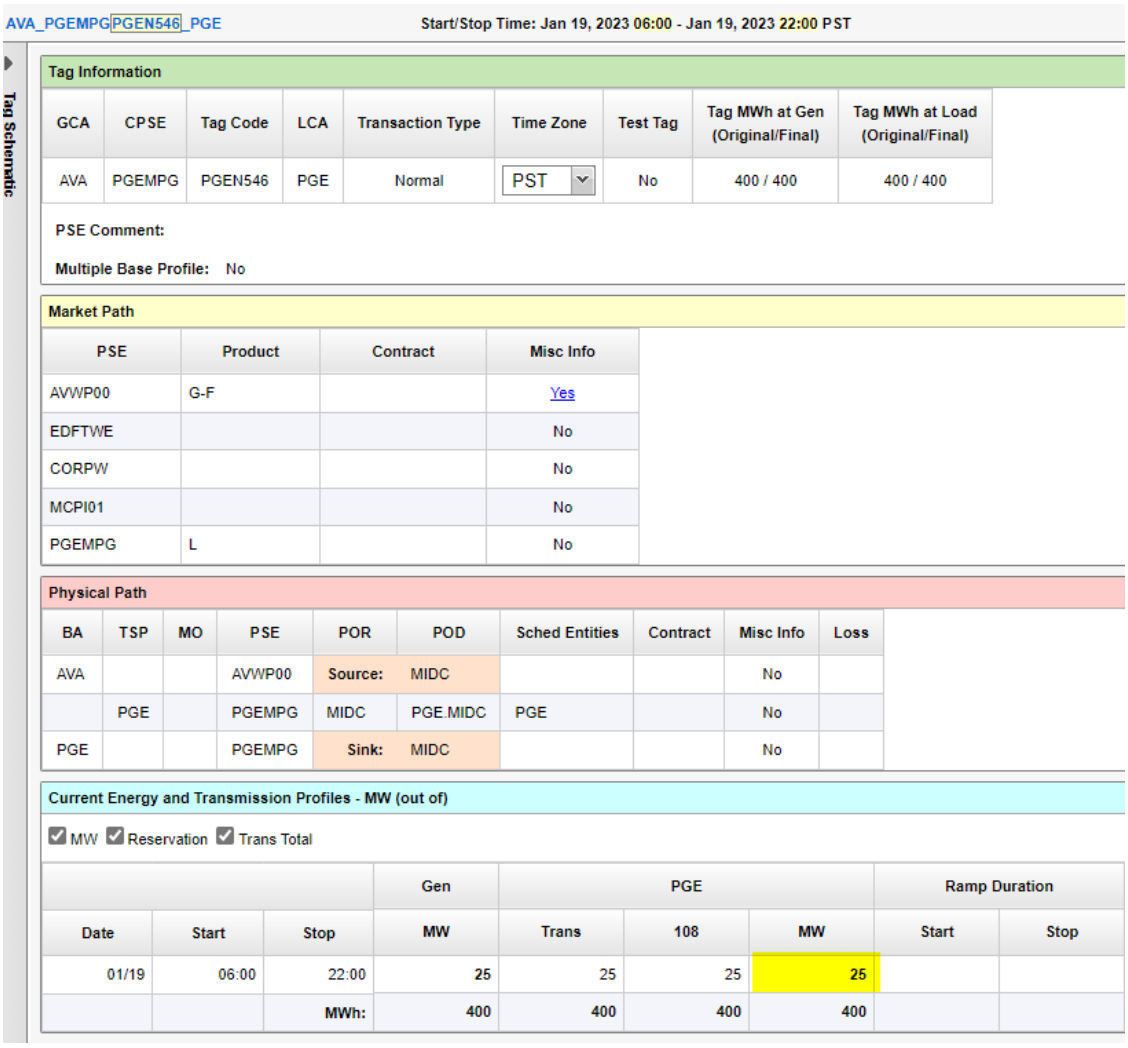
BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
PGE			PGEMPG (1)	Source:	PGE_GCPD			No	
	GCPD		PGEMPG (1)	WAPR.PGE	MIDC	GCPD		No	
	PGE		PGEMPG (1)	MIDC	PGE.MIDC	PGE		No	
PGE			PGEMPG (2)	Sink:	MIDC			No	

Current Energy and Transmission Profiles - MW (out of)

☑ MW ☑ Reservation ☑ Trans Total

			Gen	GCPD			PGE		
Date	Start	Stop	MW	Trans	NOR	MW	Trans	108	MW
01/19	00:00	01:00	66	184	184	66	184	184	66
01/19	01:00	02:00	57	184	184	57	184	184	57
01/19	02:00	03:00	59	184	184	59	184	184	59
01/19	03:00	04:00	55	184	184	55	184	184	55
01/19	04:00	05:00	62	184	184	62	184	184	62
01/19	05:00	06:00	65	184	184	65	184	184	65
01/19	06:00	07:00	87	184	184	87	184	184	87
01/19	07:00	08:00	94	184	184	94	184	184	94
01/19	08:00	09:00	78	184	184	78	184	184	78
01/19	09:00	10:00	77	184	184	77	184	184	77

4. MIDC Purchase



AVA_PGEMPGPGEN546_PGE Start/Stop Time: Jan 19, 2023 06:00 - Jan 19, 2023 22:00 PST

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)
AVA	PGEMPG	PGEN546	PGE	Normal	PST	No	400 / 400	400 / 400

PSE Comment:

Multiple Base Profile: No

Market Path

PSE	Product	Contract	Misc Info
AVWP00	G-F		Yes
EDFTWE			No
CORPW			No
MCPI01			No
PGEMPG	L		No

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
AVA			AVWP00	Source:	MIDC			No	
	PGE		PGEMPG	MIDC	PGE.MIDC	PGE		No	
PGE			PGEMPG	Sink:	MIDC			No	

Current Energy and Transmission Profiles - MW (out of)

☑ MW ☑ Reservation ☑ Trans Total

			Gen	PGE			Ramp Duration	
Date	Start	Stop	MW	Trans	108	MW	Start	Stop
01/19	06:00	22:00	25	25	25	25		
		MWh:	400	400	400	400		

Energy Out E-tags

5. Sale Douglas PUD

PGE_PGEMPG_PGEN538_DOPD Start/Stop Time: Jan 19, 2023 00:00 - Jan 20, 2023 00:00 PST (All times are in PST)

Contract No: 209751

PSE Comment:

Multiple Base Profile: No

Market Path

PSE	Product	Contract	Misc Info
PGEMPG	G-F		Yes
DGLS01	L		No

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
PGE			PGEMPG	Source:	MIDC			No	
	PGE		PGEMPG	PGE.MIDC	MIDC	PGE		No	
	DOPD		DGLS01	MIDC	DS2	DOPD		No	
DOPD			DGLS01	Sink:	DOPD SYS			No	

Current Energy and Transmission Profiles - MW (out of)

☑ MW ☑ Reservation ☑ Trans Total

			Gen	PGE			DOPD		
Date	Start	Stop	MW	Trans	107	MW	Trans	NOR	MW
01/19	00:00	01:00	46	46	46	46	46	46	46
01/19	01:00	02:00	59	59	59	59	59	59	59
01/19	02:00	03:00	63	63	63	63	63	63	63
01/19	03:00	04:00	74	74	74	74	74	74	74
01/19	04:00	05:00	84	84	84	84	84	84	84
01/19	05:00	07:00	103	103	103	103	103	103	103
01/19	07:00	08:00	112	112	112	112	112	112	112
01/19	08:00	09:00	108	108	108	108	108	108	108
01/19	09:00	10:00	102	102	102	102	102	102	102

6. MIDC Sale

PGE_AVWP00 0266489 _AVA Start/Stop Time: Jan 01, 2023 00:00 - Feb 01, 2023 00:00 PST

Tag Information

GCA	CPSE	Tag Code	LCA	Transaction Type	Time Zone	Test Tag	Tag MWh at Gen (Original/Final)	Tag M (Ori
PGE	AVWP00	0266489	AVA	Normal	PST	No	1044 / 1044	1(

PSE Comment:

Multiple Base Profile: No

Market Path

PSE	Product	Contract	Misc Info
PGEMPG	G-F		Yes
AVWP00	L		No

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
PGE			PGEMPG	Source:	MIDC			No	
	PGE		PGEMPG	PGE.MIDC	MIDC	PGE		No	
AVA			AVWP00	Sink:	MIDC			No	

Current Energy and Transmission Profiles - MW (out of)

Show: 1 day Starting: << < 01/19/2023 > >> MW Reservation Tra

			Gen	PGE		
Date	Start	Stop	MW	Trans	107	MW
01/19	00:00	03:00	1	1	1	1
01/19	03:00	04:00	2	2	2	2
01/19	04:00	05:00	1	1	1	1
01/19	05:00	06:00	2	2	2	2
01/19	06:00	07:00	1	1	1	1
01/19	07:00	08:00	2	2	2	2
01/19	08:00	09:00	1	1	1	1
01/19	09:00	10:00	2	2	2	2

7. To PGE LOAD

PGE_PGEMPGPGEN414_PGE Start/Stop Time: Jan 19, 2023 00:00 - Jan 20, 2023 00:00 PST (All times are in PST)

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)
PGE	PGEMPG	PGEN414	PGE	Dynamic	PST	No	5487 / 6855	5487 / 6855

Contract No: Mid-C Estimate

PSE Comment: Mid-C Estimate

Multiple Base Profile: No

Market Path

PSE	Product	Contract	Misc Info
PGEMPG	G-F		No
PGEMPG	L		No

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
PGE			PGEMPG (1)	Source:	MIDC			No	
	PGE		PGEMPG (1)	PGE.MIDC	MIDCRemote	PGE		No	
	BPAT		PGEMPG (1)	MIDCRemote	BPAT.PGE	BPAT		No	
	PGE		PGEMPG (1)	BPAT.PGE	PGE	PGE		No	
PGE			PGEMPG (2)	Sink:	PGELOAD			No	

Current Energy and Transmission Profiles - MW (out of)

☑ MW ☑ Reservation ☑ Trans Total

			Gen	PGE			BPAT			PGE		
Date	Start	Stop	MW	Trans	119	MW	Trans	98265185	MW	Trans	98629304	MW
01/19	00:00	01:00	264	538	538	264	538	538	264	538	538	264
01/19	01:00	02:00	219	538	538	219	538	538	219	538	538	219
01/19	02:00	03:00	123	538	538	123	538	538	123	538	538	123
01/19	03:00	04:00	103	538	538	103	538	538	103	538	538	103
01/19	04:00	05:00	89	538	538	89	538	538	89	538	538	89
01/19	05:00	06:00	169	538	538	169	538	538	169	538	538	169
01/19	06:00	07:00	308	538	538	308	538	538	308	538	538	308
01/19	07:00	08:00	318	538	538	318	538	538	318	538	538	318
01/19	08:00	09:00	241	538	538	241	538	538	241	538	538	241
01/19	09:00	10:00	226	538	538	226	538	538	226	538	538	226

Appendix 2: Lesser-of Analysis for Wheel-through Transactions under a Hubbing Arrangement

This illustrative example shows how a lesser of analysis can be used to determine the quantify of electricity wheeled-through Washington under a hubbing arrangement.

Morgan Stanley (MSCG) has offtake from the Wanapum and Priest Rapids hydroelectric projects and is thus able to hub at MID-C via Grant PUD's BAA. In a hypothetical hour, MSCG's offtake of these two projects is 25 MW. In the same hour, MSG purchases 125 MW sourced from Calpine's Hermiston resource in Oregon and sinks this energy in Grants BAA. MSG also sells and schedules 50 MW to PSEI, and 100 MW to an Oregon load in the same hour.

Under the general rule in the regulation, the tag from Hermiston to MSCG.GCPD would be an import because Grant PUD is a Washington-only BAA. Because MSCG is not the importer of that energy, MSCG could not net the export to Oregon in the same hour.

Instead, MSCG could do a lesser-of analysis comparing the volume of energy exported (100 MW) to the volume of energy imported (125 MW) in the same hour. This comparison shows that the entirety of the 100 MW export was backed by the 100 MW import – 100 MW was simply wheeled through Washington. The remaining 25 MW would be considered and import to Washington.

The table below shows energy into and out of the Grant's BAA by MSCG. The tags that follow show the transfers in from Hermiston and out to PSEI and UECE (Oregon load.) Because the hydroelectric projects are located in Grant's BAA, tags are not created. Meter generation and/or project generation allocation data and contracts would additionally be needed to demonstrate MSCG's offtake from these resources in that hour.

Energy In					
Tag	Source	MW	Source	Sink	
No Tag (within same BAA)	Wanapum and Priest Rapids	25	NA	NA	
	Hermiston	125	HermistonCPN	MSCG.GCPD	
Total Supply In		150			
Energy Out					
	Sale	100	MSCG.GCPD	UECA.NF	
266489	Sale	50	MSCG.GCPD	PSEI.SYS	
Total Energy out		150			

Energy In e-tags

Physical Path

Insert Rows | Insert Above | Insert Below | Remove Row

BA		TSP		MO	PSE	POR	POD	Sched Entities	
GRID	*				CALPWE	Source:	HERMISTONCPN		
		BPAT	*		CALPWE	HermistonCPN	BPAT.GCPD	BPAT	*
GCPD	*				MSCG01	Sink:	MSCG_GCPD		

Transmission Allocation

Insert Rows | Insert Above | Insert Below | Remove Row

TSP	Owner		Product	OASIS	NITS Resource
BPAT	CALPWE	*	7-F	98649719	

Energy and Transmission Profile

Start Date 02-23-2023 Stop Date 02-23-2023 ☐ Sun ☐ Mon ☐ Tue ☐ Wed ☑ Thu ☐ Fri ☐ Sat ☐ All

Start	Stop	Gen	BPAT	Ramp Duration	
		MW	98649719	Start	Stop
12:00	13:00	125	125		

Energy Out e-tags

Physical Path

Insert Rows | Insert Above | Insert Below | Remove Row

BA		TSP		MO	PSE	POR	POD	Sched Entities
GCPD	*				MSCG01	Source:	MSCG_GCPD	
		BPAT	*		PSEMKT	BPAT.GCPD	BPAT.PSEI	BPAT
		PSEI	*		PSEMKT	BPAT.PSEI	PSEI.SYSTEM	PSEI
PSEI	*				PSEMKT	Sink:	PSEISYS	

Transmission Allocation

Energy and Transmission Profile

Start Date 02-23-2023 Stop Date 02-23-2023 ☐ Sun ☐ Mon ☐ Tue ☐ Wed ☑ Thu ☐ Fri ☐ Sat ☐ All

Start	Stop	Gen	BPAT	PSEI	Ramp Duration	
		MW	98507990	98507982	Start	Stop
12:00	13:00	50	50	50		

Physical Path

Insert Rows | Insert Above | Insert Below | Remove Row

BA		TSP		MO	PSE	POR	POD	Sched Entities
GCPD	*				MSCG01	Source:	MSCG_GCPD	
		BPAT	*		UECA	BPAT.GCPD	UMATILLA	BPAT
BPAT	*				UECA	Sink:	UECA_NF	

Transmission Allocation

Energy and Transmission Profile

Start Date 02-23-2023 Stop Date 02-23-2023 ☐ Sun ☐ Mon ☐ Tue ☐ Wed ☑ Thu ☐ Fri ☐ Sat ☐ All

Start	Stop	Gen	BPAT	Ramp Duration	
		MW	16825	Start	Stop
12:00	13:00	100	100		

Appendix 3: Evaluation of Tag Examples

1. The source is Chelan PUD's BAA. Because this electricity was unambiguously generated in Washington (or separately accounted as a transfer into Chelan's BAA), this tag does not show an import.

BA	TSP	MO	PSE	POR	POD	Sched Entities
CHPD			PWX01	**Source:** MIDC		
	BPAT		FCPD01	BPAT.CHPD	Franklin	BPAT
BPAT			FCPD01	**Sink:** Franklin		

2. Similarly, because the source of this tag is Avangrid's offtake from Priest Rapid Project in Washington, this tag does not represent an import.

Physical Path									
BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
AVRN			AVRNW	**Source:**	AVRN_PRP			No	
	BPAT		AVRNW	BPAT.GCPD	BPAT.PSEI	BPAT		No	
	PSEI		PSEMKT	BPAT.PSEI	PSEI.SYSTEM	PSEI		No	
PSEI			PSEMKT	**Sink:**	PSEISYS			No	

3. Because the sink on this tag is within PGE's BAA, it is not considered to sink it Washington. This tag does not show an import.

Physical Path						
BA	TSP	MO	PSE	POR	POD	Sched Entities
AVA			AVWP00	**Source:**	MIDC	
	PGE		PGEMPG	MIDC	PGE.MIDC	PGE
PGE			PGEMPG	**Sink:**	MIDC	

4. Although the source of this tag is a resource outside of Washington, because the tag sinks to PACWNNH and PacifiCorp is the sink PSE, this tag does not show an import.

Physical Path								
CA	TP	MO	PSE	POR	POD	Sched Entities	Contract	Misc(Token/Value)
BPAT			SCETAG	CSFHorseshoe				
	BPAT		TEMUWS	SLATT230	BPAT.PACW	BPAT		
	PPW		PAC01	BPAT.PACW	PACW	PACW		
PACW			PAC01	PACWNNH				

5. Because the Source POR is MIDC and Avista is the source PSE, the electricity was generated outside the state, unless Avista can demonstrate through a lesser-of analysis that any emissions are separately accounted for. However, because the electricity sinks at MIDC-NNH and PacifiCorp is the sink PSE, this tag does not show an import.

Physical Path						
BA	**TSP**	**MO**	**PSE**	**POR**	**POD**	**Sched Entities**
AVA			AVWP00	**Source:**	MIDC	
	PPW		PAC01	MIDC	MIDC	PACW
PACW			PAC01	**Sink:**	MIDC-NNH	

6. In this case, because the tag identifies a Washington resource within Avista's generation system, it can be determined that the electricity was generated inside the state. This tag does not show an import.

Physical Path					
BA	**TSP**	**MO**	**PSE**	**POR**	**POD**
AVA			AVWP00	**Source:**	Upper Falls
	AVAT		AVWP00	AVA.SYS	AVA.BPAT
	BPAT		MSCG01	AVA.BPAT	BPAT.GCPD
GCPD			MSCG01	**Sink:**	MSCG_GCPD

7. The source on this tag is the BC hydro system. Because the tag sinks to BPAT for BPA's load, it does not show an import.

TP	**PSE**	**POR**	**POD**
BCHA	BCPS01	BCHA	
BCHA	FBC001	KI	BC.US.Border
BPAT	PWX01	BC.US.Border	NWH
BPAT	BPAP01	NWH	BPAUNSCHD
	BPAP01	Sink: BPALOAD	

8. Because the source of this tag is BPA's generation system, it originates outside of Washington. However, because it sinks to MIDC-NNH and PacifiCorp is the sink PSE, it does not show an import.

Physical Path — BPAT_PAC0

PID	MID	GCA	MO	GPE	Source		
1	1	BPAT		BPAP01	BPAPOWER		
PID	MID	TP	MO	PSE	POR	POD	SE(s)
2	1	BPAT		BPAP01	BPAPower	MIDCRemote	BPAT
3	2	PPW		PAC01	MIDCRemote	MIDC	PACW
4	2	PPW		PAC01	MIDC	MIDC	PACW
PID	MID	LCA	MO	LSE	Sink		
5	2	PACW		PAC01	MIDC-NNH		

9. This tag originates outside Washington. However, because it sinks in Avangrid's BAA and Avangrid does not have Washington load, it does not show an import.

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
PGE			PGEMPG	**Source:**	PGESlattGen			No	
	PGE		PGEMPG	PGE.SLATT	Slatt	PGE		No	
	BPAT		AVRNW	Slatt	BPAT.AVRN	BPAT		No	
AVRN			AVRNW	**Sink:**	AVRN.sys			No	

---

10. This tag originates from generation outside Washington. However, because it sinks to Avista's BAA at MIDC, it does not show an import.

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
PGE			PGEMPG	**Source:**	PGEGEN			No	
	PGE		PGEMPG	PGE	BPAT.PGE	PGE		No	
	BPAT		PGEMPG	BPAT.PGE	MIDCRemote	BPAT		No	
AVA			AVWP00	**Sink:**	MIDC			No	

11. This tag originates at a resource outside of Washington. However, because it sinks to a generation sink POD outside of Washington within the GRID BAA, it does not show an import.

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities
BCHA			ETML01	**Source:**	POWELL.RIVER	
	BCHA		ETML01	POWELL.RIVER	BC.US.BORDER	BCHA
	BPAT		TEAW02	BC.US.Border	HermistonCPN	BPAT
GRID			CALPWE	**Sink:**	HERMISTONCPN	

12. Because the Source POR is MIDC and Avista, which uses the MIDC source POR as a composite of both Washington and non-Washington resources, is the source PSE, the schedule was generated outside the state, unless Avista can demonstrate through a lesser-of analysis that emissions are separately accounted for. Franklin is a designated scheduling point of Washington load within BPA's BAA. This tag shows an import. Avista is the importer due to the delivery to (and source from) MIDC.

AVA			AVWP00	**Source:**	MIDC	
	BPAT		FCPD01	MIDCRemote	Franklin	BPAT
BPAT			FCPD01	**Sink:**	Franklin	

13. Similarly, this tag identifies a resource located in Idaho. Because the sink is within Grant's BAA, this is an import. As the PSE on the leg of the physical path to the BPAT.GCPD adjacency, Morgan Stanley is the importer.

Physical Path

BA	TSP	MO	PSE	POR	POD
AVA			AVWP00	**Source:**	Post Falls
	AVAT		AVWP00	AVA.SYS	AVA.BPAT
	BPAT		MSCG01	AVA.BPAT	BPAT.GCPD
GCPD			MSCG01	**Sink:**	MSCG_GCPD

14. Because the Source POR is MIDC and the source PSE is PGE, PGE is the importer for the delivery to MIDC, unless PGE can demonstrate that emissions are separately accounted for.

PGE			PGEMPG	**Source:**	MIDC	
	PGE		PGEMPG	PGE.MIDC	MIDCRemote	PGE
	BPAT		BCPD01	MIDCRemote	Benton	BPAT
BPAT			BCPD01	**Sink:**	Benton	

15. Because the electricity is sourced from a resource located outside the state, and sinks in PSE's system, this is an import. As the PSE on the leg of the physical path to MIDC, Florida Power and Light would be the importer.

Physical Path						
CA	TP	MO	PSE	POR	POD	Sched Entities
PACW			FPLPWE	Vansycle II		
	PPW		FPLPWE	WALLULA	MIDC	PACW
	PPW		FPLPWE	MIDC	MIDCRemote	PACW
	BPAT		PSEMKT	MIDCRemote	BPAT.PSEI	BPAT
	PSEI		PSEMKT	BPAT.PSEI	PSEI.SYSTEM	PSEI
PSEI			PSEMKT	PSEISYS		

16. Because this tag originates from BPA's generation system, and sinks at Tacoma Power, it shows an import. If BPA had elected to be an FJD, BPA would be the importer by virtue of being the PSE on the leg to NWH. Since BPA has not elected to be an FJD, Tacoma would be the importer for the leg from NWH to BPAT.TPU.

Physical Path									
BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
BPAT			BPAP01	Source:	BPAPOWER			No	
	BPAT		BPAP01	BPAPower	NWH	BPAT		No	
	BPAT		TPWPP2	NWH	BPAT.TPU	BPAT		No	
	TPWT		TPWPP2	BPAT.TPU	TPWR.SYS	TPWR		No	
TPWR			TPWPP2	Sink:	TPWR			No	

17. Because this tag identifies a resource outside of Washington, and a sink POD of a designated scheduling point within BPA's BAA, it is an import. As the PSE on the leg of the physical path to NWH, PGE would be the importer.

Physical Path

Insert Rows | Insert Above | Insert Below | Remove Row

BA		TSP		MO	PSE	POR	POD
PGE	•				PGEMPG	Source:	PGESlattGen
		PGE	•		PGEMPG	PGE.SLATT	Slatt
		BPAT	•		PGEMPG	Slatt	NWH
		BPAT	•		COWL01	NWH	Cowlitz
BPAT	•				COWL01	Sink:	Cowlitz

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18. The comment field of this tag identifies a Washington resource, Swift, which Cowlitz has rights to. Because the electricity originates in Washington, this tag does not show an import.

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)
PACW	TEAW02	TJI5431	BPAT	Normal	PDT	No	0 / 0	0 / 0

PSE Comment: Swift to Load

Multiple Base Profile: No

Market Path

PSE	Product	Contract	Misc Info
PAC01	G-F		Yes
COWL01	L		No

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
PACW			PAC01	Source:	PACWNNH			No	
	PPW		PAC01	PACW	BPAT.PACW	PACW		No	
	BPAT		COWL01	BPAT.PACW	Cowlitz	BPAT		No	
BPAT			COWL01	Sink:	Cowlitz			No	

19. This tag originates from BC Hydro's generation system and sinks at Seattle City Light. It is therefore an import. As the PSE on the leg from BC.US.Border to NWH, Powerex would be the importer.

Physical Path						
CA	TP	MO	PSE	POR	POD	Sched Entities
BCHA			BCPS01(1)	BCHA		
	BCHA		~~EBC001~~	KI	BC.US.BORDER	BCHA
	BPAT		PWX01	BC.US.Border	NWH	BPAT
	BPAT		SCLMM1	NWH	BPAT.SCL	BPAT
SCL			SCLMM1	SCL		

20. This tag also shows an import from BPA's generation system to Puget Sound Energy. If BPA had elected to be an FJD, BPA would be the importer for the leg to NWH. However, because BPA has not elected to be an FJD, as the PSE on the next leg of the physical path, Puget Sound Energy would be the importer.

TP	PSE	POR	POD	SE
BPAT	BPAP01	BPAPower	NWH	BPAT
BPAT	PSEMKT	NWH	BPAT.PSEI	BPAT
PSEI	PSEMKT	BPAT.PSEI	PSEI.SYSTEM	PSEI

21. If BPA had elected to be the FJD, BPA would be the importer for the leg to MIDCRemote. Because BPA has not made this election, as the PSE on the next leg of the physical path MIDCremote to MIDC, BP Energy would be the importer.

BPAT	BPAP01	BPAPower	MIDCRemote	BPAT
PPW	BPEC01	MIDCRemote	MIDC	PACW
PSEI	BPEC01	MIDC	BPREFINRY449	PSEI

22. This tag shows import of electricity from a Wyoming resource, through AVAT and BPA transmission to sink in Grant's BAA. As the PSE on the leg to BPAT.GCPD, Guzman Energy would be the importer.

Physical Path						
BA	TSP	MO	PSE	POR	POD	Sched Entities
WACM			GPM	Source:	Panorama_Wind	
	TSGT		GPM	RTAL	DJ	WACM
	PPW		GPM	DJ	YTP	PACE
	NWMT		GPM	YTP	AVAT.NWMT	NWMT
	AVAT		GPM	AVAT.NWMT	AVA.BPAT	AVA
	BPAT		GPM	AVA.BPAT	BPAT.GCPD	BPAT
GCPD			CORPW	Sink:	SENA_GCPD	

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23.Because this tag originates from PacifiCorp's generation system, it represents an import, unless PacifiCorp can demonstrate through a lesser-of analysis that any emissions are separately accounted for. As the PSE for delivery to MIDC, PacifiCorp would be the importer.

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities
PACW			PAC01	**Source:**	MIDC-NNH	
	PPW		PAC01	MIDC	MIDC	PACW
	PPW		PAC01	MIDC	MIDCRemote	PACW
	BPAT		IPL401	MIDCRemote	INLANDPOWER	BPAT
BPAT			NEMS	**Sink:**	Inland	

24. Because this tag originates from PacifiCorp's generation system, it represents an import, unless PacifiCorp demonstrates through a lesser-of analysis that any emissions are separately accounted for. As the PSE on the leg to BPAT.TPU, Tacoma Power would be the importer.

Physical Path

PID	MID	GCA	MO	GPE	Source		
1	1	PACW		PAC01	PACWNNH		
PID	MID	TP	MO	PSE	POR	POD	SE(s)
2	1	PPW		PAC01	PACW	BPAT.PACW	PACW
3	2	BPAT		TPWPP2	BPAT.PACW	BPAT.TPU	BPAT
4	2	TPWT		TPWPP2	BPAT.TPU	TPWR.SYS	TPWR
PID	MID	LCA	MO	LSE	Sink		
5	2	TPWR		TPWPP2	TPWR		

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25. This tag originates from a non-Washington resources and sinks to a load, Pend Oreille PUD, within Avista's BAA that is not served by Avista. As the PSE on the leg to the POPD POD, Shell Energy North America would be the importer.

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	C
BPAT			SCETAG	**Source:**	CSFHorseshoe		
	BPAT		CORPW	SLATT230	POPD	BPAT	
AVA			POPD1	**Sink:**	POPDImport		

26. Because this tag originates from BPA's system and sinks in Grant PUD's, it shows an import. As there is no other PSE on the physical path, and BPA has not elected to be an FJD, Grant PUD is the importer as the purchasing utility.

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities
BPAT			BPAP01	**Source:**	BPAPOWER	
	BPAT		BPAP01	BPAPower	BPAT.GCPD	BPAT
GCPD			GCPUD2	**Sink:**	GCPD	

27. Because this tag originates from a PGEGEN, the electricity was generated outside Washington. Because the tag sinks to a load in PSE's system, the transaction is an import. As the PSE on the leg to MIDCRemote, PGE is the importer.

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
PGE			PGEMPG	**Source:**	PGEGEN			No	
	PGE		PGEMPG	PGE	BPAT.PGE	PGE		No	
	BPAT		PGEMPG	BPAT.PGE	MIDCRemote	BPAT		No	
	PSEI		PSEI	MIDCRemote	MIDC	PSEI		No	
	PSEI		APCI	MIDC	PSEI.SYSTEM	PSEI		No	
	PSEI		APCI	PSEI.SYSTEM	APRODUCTS449	PSEI		No	
PSEI			APCI	**Sink:**	Air_Products			No	

28. This tag shows an import from BPA generation to Puget's BAA. As the PSE on the leg to the adjacency between BPAT and PSEI, Puget is the importer.

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
BPAT			BPAP01	Source:	BPASLICE		12150	No	
	BPAT		PSEMKT	BPAPower	BPAT.PSEI	BPAT		No	
	PSEI		PSEMKT	BPAT.PSEI	PSEI SYSTEM	PSEI		No	
PSEI			PSEMKT	Sink:	PSEISYS			No	

29. Because a specific, non-Washington resource in Avangrid's generation system is identified, this tag shows an import to Grant. As the PSE on the leg of the path to the adjacency at BPAT.GCPD, AVRNW is the importer.

Physical Path

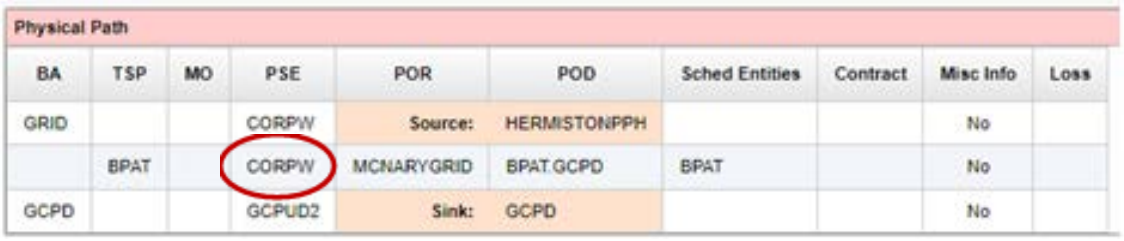
BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
AVRN			AVRNW	Source:	KFallsGen			No	
	PPW		AVRNW	KFALLSGEN	KFALLSGEN	PACW		No	
	BPAT		AVRNW	KFallsGen	JohnDay	BPAT		No	
	BPAT		AVRNW	JohnDay	BPAT.GCPD	BPAT		No	
GCPD			GCPUD2	Sink:	GCPD			No	

30. Because this tag shows PGE as the source PSE at MIDC, this tag shows electricity that was generated outside the state, unless PGE can demonstrate through a lesser-of analysis that any emissions are separately accounted for. As the PSE for the delivery at MIDC, PGE is the importer.

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Cont
PGE			PGEMPG	Source:	MIDC		
	PGE		PGEMPG	PGE.MIDC	MIDC	PGE	
	DOPD		DGLS01	MIDC	DS2	DOPD	
DOPD			DGLS01	Sink:	DOPD SYS		

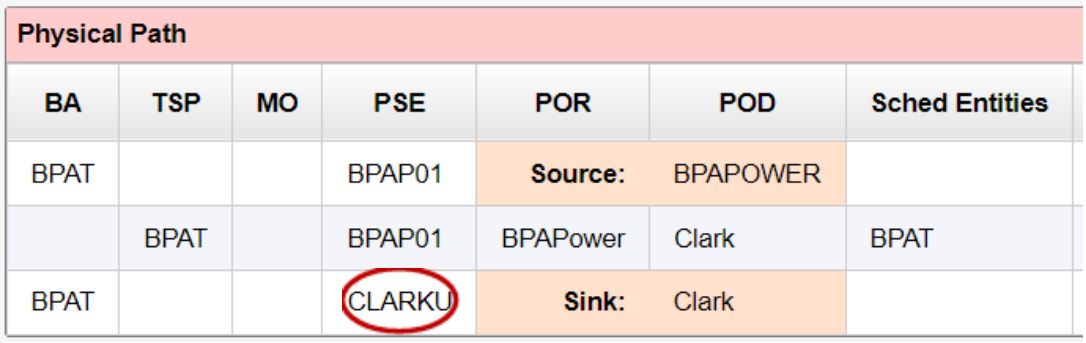
31. This tag shows an import from a resource located in Oregon in GRID's BAA to Grant PUD. As the PSE on the leg to the BPAT.GCPD adjacency, Shell NA is the importer.



Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	Misc Info	Loss
GRID			CORPW	Source:	HERMISTONPPH			No	
	BPAT		CORPW	MCNARYGRID	BPAT.GCPD	BPAT		No	
GCPD			GCPUD2	Sink:	GCPD			No	

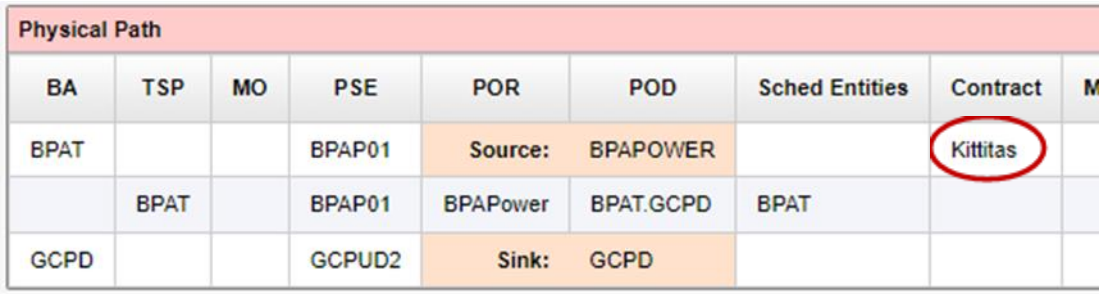
32. This tag shows an import pursuant to a BPA sale to a Washington preference customer, with delivery to the Preference Customer's load, at their designated scheduling point. Because BPA has not elected to be an FJD, Clark would be the importer as the Preference Customer.



Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities
BPAT			BPAP01	Source:	BPAPOWER	
	BPAT		BPAP01	BPAPower	Clark	BPAT
BPAT			CLARKU	Sink:	Clark	

33. This tag shows an import pursuant to a BPA sale to a Washington Preference Customer, Kittitas PUD. Identification of Kittitas in the Contract field distinguishes this from a tag for imports for Grant's own load. Kittitas would be considered the importer, subject to verification of the contract.



Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities	Contract	M
BPAT			BPAP01	Source:	BPAPOWER		Kittitas	
	BPAT		BPAP01	BPAPower	BPAT.GCPD	BPAT		
GCPD			GCPUD2	Sink:	GCPD			

34. This tag shows a Washington wind resource within the AVRN BAA. Because the output of the resource sinks in Washington in PSEI, a lesser of analysis would be required to identify the volume of balancing energy. As the PSE on the leg to BPAT.PSEI, Avangrid would be the importer of the balancing energy.

Physical Path

BA	TSP	MO	PSE	POR	POD	Sched Entities
AVRN			AVRNW	**Source:**	BigHorn	
	BPAT		AVRNW	BIGHORN	BPAT.PSEI	BPAT
	PSEI		PSEMKT	BPAT.PSEI	PSEI.SYSTEM	PSEI
PSEI			PSEMKT	**Sink:**	PSEISYS	