

Gen-Only BA

EIM Participation

Gen-Only BA EIM Participation Considerations

Implementation

- Historically, implementation cost has been based on Net Energy for Load. As a Gen-only BA, Net Energy for Load is zero, therefore the implementation cost could be based on Net Generation
- While the need for many 'accommodations' is not expected, it is certainly possible a non-conforming EIM agreement would be needed

Transmission

- Gen-Only BAs would likely need to be an EIM Transmission Service Provider. The Gen-Only BA would not be an actual TSP, but this designation would allow them to utilize their Transmission Service Rights for EIM transfers

Load

- While it is true that a Gen-only BA does not have Load, from a Tariff perspective there is no need for a BA to have Load to participate in EIM. Any provision that considers load will need to be evaluated in the context of a Gen-only BA, however in general, it appears that such provisions would result in an effectively a 'null set' for Gen-only BAs and therefore when applied to a Gen-only BA would not yield a result (i.e., would not apply, without specifically stating so)

Generation

- As a general matter, Gen-only BAs generation fits well in to the EIM
- The area that requires the most amount of scrutiny/evaluation is the Resource Sufficiency Test (RST). However, based on an initial review, there do not appear to be any major hurdles to a Gen-only BA being able to satisfy the RST

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Summary

- While a Gen-only BA in the context of EIM is somewhat unique, at this point it does not appear there will be a need to modify the Tariff or the Business Practices in order to allow a Gen-only BA to participate in EIM. Therefore, we would not expect the need for a Gen-only EIM Participation stakeholder process and would expect the participation of a Gen-only BA in EIM to be handled through the standard implementation process.

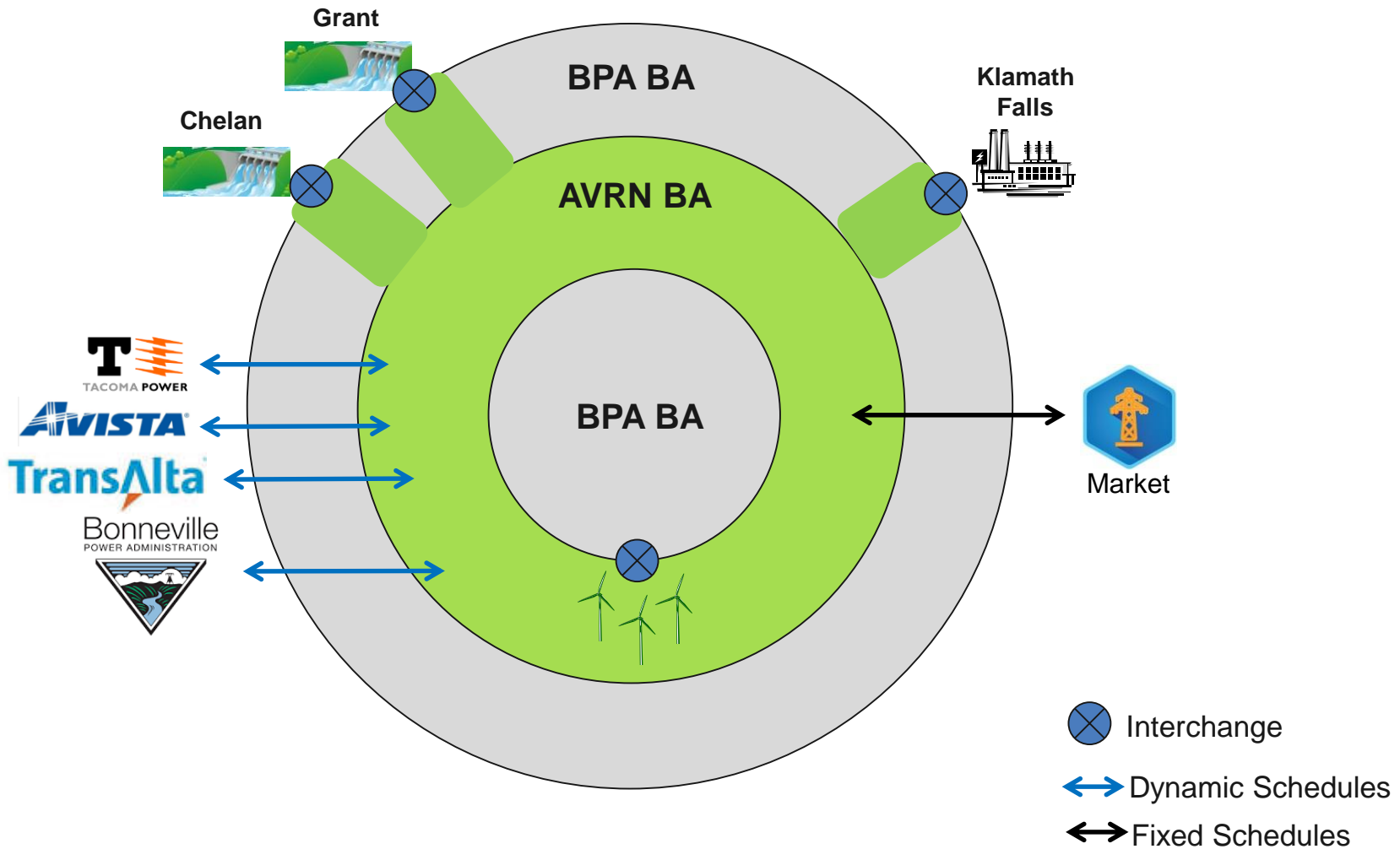
Independent, Generation-Only Balancing Authority (BA)

- On July 31, 2018 at 10 am the Avangrid BA went live and encompasses Avangrid's Northwest renewable assets that had resided in the Bonneville BA
- The BA comprises of 1,300+ MWs of wind generation (and WyEast) balanced primarily by 535 MW of Combined Cycle Gas, 100 MW of Simple Cycle Gas CTs and 300 MW of Mid-C Hydroelectric Power

BA Operations enables the following Key Benefits

- Improved Operational Flexibility and access to a greater number of market structures that can only be utilized as a BA
- Long term integration cost certainty, enabling the company to provide improved service at a lower cost to customers
- A platform for growth through services to customers, 3rd parties and load serving entities

Avangrid Balancing Authority Structure



Avangrid Balancing Resources

Klamath Combined Cycle Unit

- 535 MW Installed Capacity
- 1x1 – Min: 135, Max: 250 (w/ Ducts), Ramp Rate 10 MW/Minute
- 2x1 – Min: 300, Max: 535 (w/ Ducts), Ramp Rate 20 MW/Minute

Klamath Peakers

100 MW Installed Capacity
2 50 MW twin packs
Online in 7.5 Minutes

Grant Slice

200 MW Installed Capacity
100 MW Average Generation
Ramp Rate = ~ 10 MW/Minute

Chelan Slice

100 MW Installed Capacity
60 MW Average Generation
Ramp Rate = ~8 MW/Minute

Avista, Tacoma, Transalta, BPA

Transacted hourly and implemented through Dynamic Schedules

Avangrid Long Term Firm Transmission Right

BPA Network – 776 MW

- Portland General Electric – 235 MW
- Puget Sound Energy – 196
- John Day – 345

BPA Southern Intertie – 1152 MW

- AC – 852 MW
- DC – 300 MW