Balancing Operating Reserve Cost Allocation (BORCA)
• **Only for RT BOR, not DA OR**
  – DA OR is paid by load + decs + exports
  – Carve outs for reactive and blackstart
• Various rates based on region and payee
  – Numerator
    • Cost of uplift for that entity or region
  – Denominator
    • Load plus exports or deviations in that area
• Allocate uplift payments to the causal entity or direct beneficiary
• Costs are separated into different buckets based on
  – Time of unit commitment
  – For reliability or economics
  – For transmission or not
    • Voltage level
      – Whether or not the unit was economic during the run period

• General idea is to allocate uplift costs to load for “Conservative Operations” and to deviations for differences between DA and RT markets
Balancing Operating Reserve Cost Allocation

This BORCA process separates the TOTAL COST (credits) of BORs into eight (8) buckets.

When is Unit Being Called On?

Reliability Analysis

Operating Day

Is LMP >= Offer for at least 4 intervals for at least an hour?

No

Load + Reserves

Yes

Why is Unit Being Called On?

Conservative Operations

RA BOR: Credits for Reliability A1

RA BOR: Credits for Deviations B1

RT BOR: Credits for Reliability A2

RT BOR: Credits for Deviations B2

Is Unit being called on for Tx Constraint <= 345 kV?

No

Regional RA BOR: Credits for Reliability A1-T

Regional RA BOR: Credits for Deviations B1-T

Regional RT BOR: Credits for Reliability A2-T

Regional RT BOR: Credits for Deviations B2-T

Yes

Is Unit being called on for Tx Constraint <= 345 kV?

No

Regional RA BOR: Credits for Reliability A1-R

Regional RA BOR: Credits for Deviations B1-R

Regional RT BOR: Credits for Reliability A2-R

Regional RT BOR: Credits for Deviations B2-R

Yes
Examples

- Generator committed in the reliability analysis for APSOUTH 500 kV
  - Allocated to RTO deviations
- CT committed in RT for ATH-SAD 230 KV and economic for 3 of 12 intervals
  - Allocated to East load plus exports
  - Allocated to East deviations **IF** economic for >= 4 intervals
- Unit committed in reliability analysis to meet projected RTO load
  - Allocated to RTO deviations
- Unit committed due to anticipated unit trips the following day (“Conservative Operation”)
  - Allocated to RTO load plus exports
Specific Reasons Asked

• Units called on for thermals
  – Cost allocation dependant on BORCA criteria

• Units called on for voltage
  – Charged to the zone(s) with the voltage violation

• Units dispatched for stability
  – Units are reduced for stability which creates an LOC payment as opposed to an uplift.
  – Cost allocation to RTO deviations
Balancing Operating Reserve Cost Allocation - Regional

Regional Balancing Operating Reserve Cost Allocation

- Collect RTO BOR Credits for Reliability
- Collect Real-Time Load Rate Share plus exports Per RTO
- Calculate Daily BOR Rate
- RTO BOR Rate for Reliability
- Calculate Regional BOR for Reliability

- Collect RTO BOR Credits for Reliability
- Collect Real-Time Load Rate Share plus exports Per each Region
- Calculate Daily Regional Adder Rate
- Regional Adder Rate for Reliability
- Calculate Regional BOR for Reliability
- Regional BOR Rate for Deviations

- Collect RTO BOR Credits for Deviations
- Collect deviations For RTO
- Calculate Daily BOR Rate
- RTO BOR Rate for Deviations

- Collect deviations For each Region
- Calculate Daily Regional Adder Rate
- Regional Adder Rate for Deviations

This BORCA process determines the six (6) rates for the ALLOCATION of the total costs