Update on Benefit Metrics

CAWG
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Questions on Proposed Metrics

1. Treatment of internal congestion costs
2. Pricing of net interchange
3. Allocation of external congestion costs
Treatment of Internal Congestion

- In calculating Adjusted Production Costs, all generation within a zone at or below the load level in the zone will be treated as serving load without any congestion cost.
- Generation above load in the zone will be treated as off-system sales priced at generator LMP.
- Load above generation in the zone will be treated as off-system purchases priced at load LMP.

Pricing of Net Interchange

- Net imports will be priced at load LMPs in zones where L>G. The relative megawatts of load above generation in each of these zones will be used as weights in this calculation.
- Net exports will be priced at generation LMPs in zones where G>L. The relative megawatts of generation above load in each of these zones will be used as weights in this calculation.
Allocation of External Congestion Costs

• External congestion costs: The difference in what is charged load for off-system purchases versus what is paid generation for off-system sales.
• Two options to consider for allocating the revenues associated with these costs to the various zones:
  – Load ratio share
  – Load + generation ratio share

Impact on Calculation of Benefits

• Load ratio share will allocate more revenues to zones that are net purchasers in the energy market.
• Load + Generation share will allocate more revenues to zones that are net sellers in the energy market.
• More revenues translates into a higher measure of net benefits.
List of Critical Assumptions for Modeling Economic Upgrades

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List From August Meeting

– Renewable Portfolio Standards
– Timing, location and types of new generation
– Exports
– CO2 legislation
– Demand Response, Energy Efficiency and Legacy Programs
– Fuel Prices
Issues Needing to Address

• Determination of Base Level modeling assumptions over a 10-20 year period for each.
• Determination of Sensitivities over a 10-20 year period to apply to each.
• Determination of how sensitivities will be analyzed in making choices about upgrades to include in portfolio.

Proposal

• Is this a task for the EMMTF?
  – Choosing the base levels and sensitivities appear to be a task where stakeholders with expert knowledge in the areas should make the decisions.
  – Also include how best to analyze various sensitivities; e.g.,
    • Use faster running models that allow a large number of combinations to be run.
    • Latin Hypercube approach?
How to Evaluate Sensitivity Results

• You can’t expect a single portfolio of projects to dominate under every possible scenario.
• What metrics should be used to determine the best portfolio over a wide range of alternative futures?