

Update on Benefit Metrics

CAWG

September 26, 2007

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.

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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.

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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

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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.

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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.

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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?

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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?