Power Alert III
Measurement of Congestion

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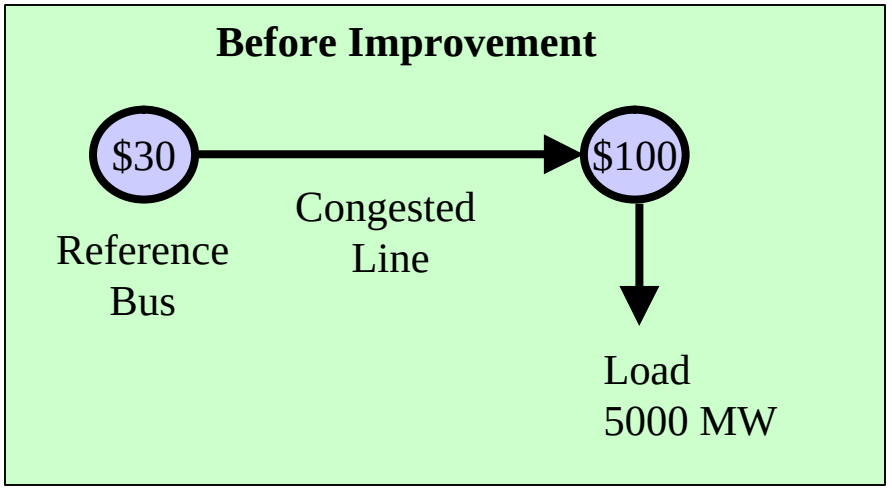
Power Alert III

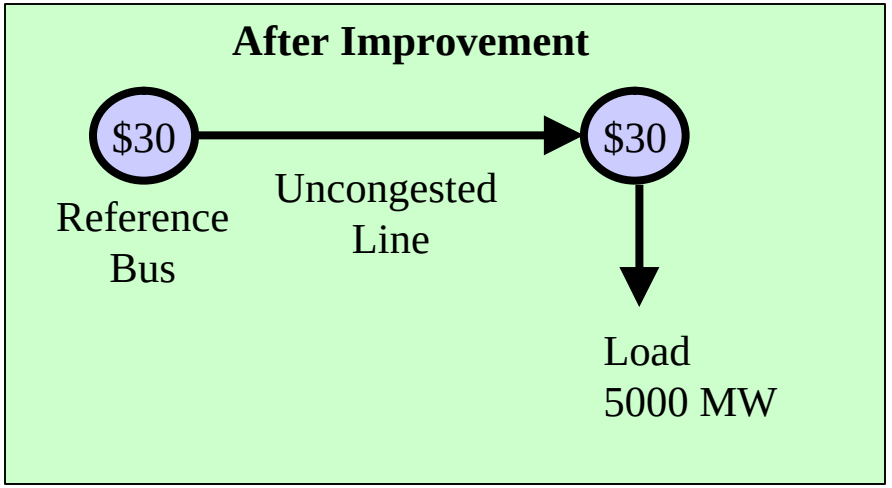
- LIPA's Concern:
  - Congestion Measurement used in Power Alert III reports a huge dollar impact from congestion
  - Congestion is being reported differently by David Patton, Power Alert III and elsewhere
  - At some point transmission expansion decisions will be made based on congestion calculations
- LIPA's Recommendation
  - Market Participants and NYISO Staff should work together to develop a set of measurements that provide a balanced assessment of the impacts of congestion.

Congestion from the Market Perspective

- Congestion Cost ($100-$30) x 5000 MW = $350,000

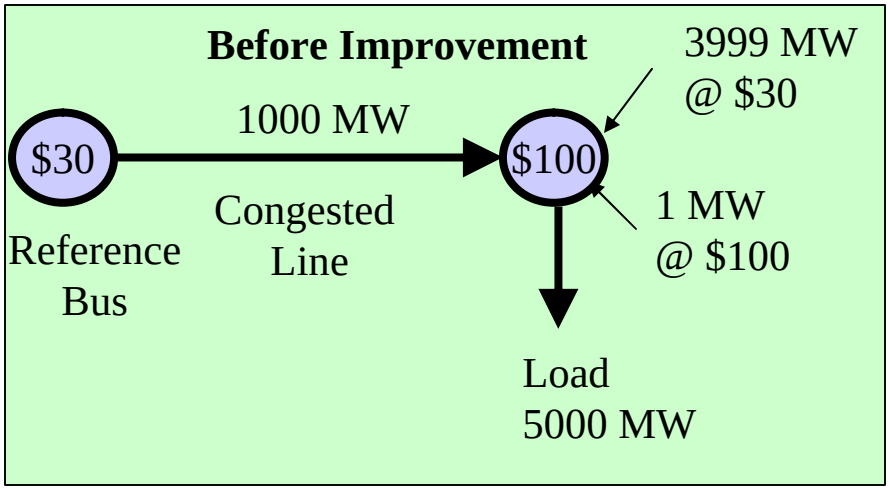
- It would appear that it would be worth a carrying cost of $350,000 to alleviate the congested line

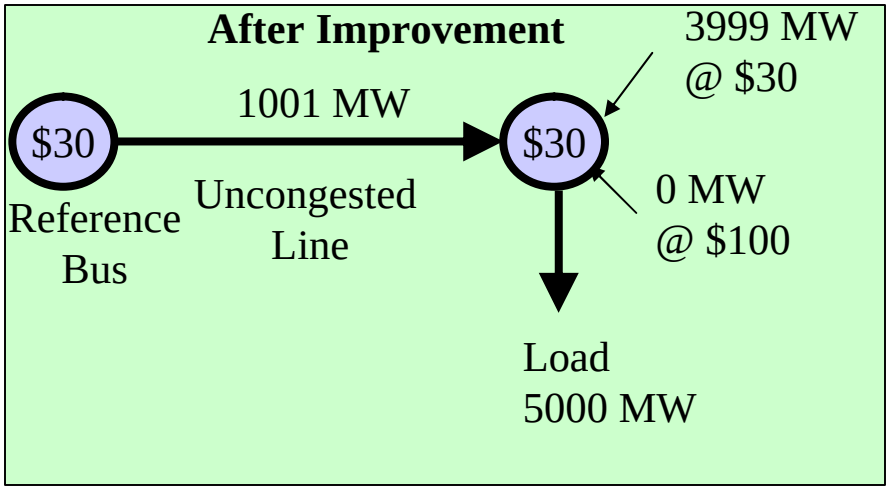




What goes on behind the market

- Example of one possible set of conditions that might be going on behind the market





Where Does the $350,000 Go?

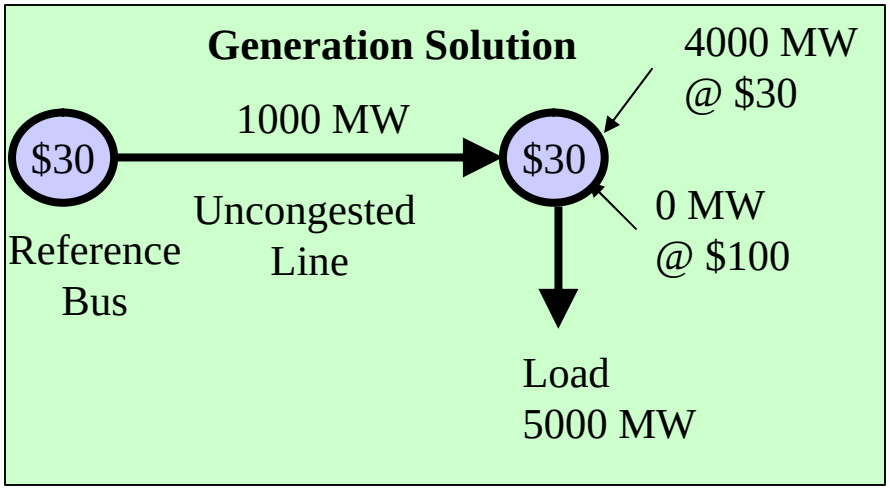
- $70,000 to the holders of TCCs or to the Transmission Owners as surplus congestion revenue
  - If it goes to the Transmission Owner, revenue is used to reduce cost to load through a reduced TSC rate.
  - If it goes to TCC holders, Transmission Owners are paid either TCC auction revenues or receive payments from grandfathered transmission contracts. These revenues are used to reduce cost to load through a reduced TSC rate.
- $279,930 goes to the generators as potential profits
  - If load has a hedge contract with the generator (either a contract for differences or a bilateral schedule), the load receives some of this revenue by not paying the full $100 price of power.
    - About 50% of ISO energy volume is through bilateral contracts
    - About 30% of ISO energy volume is thought to be secured through contract for differences
- $70 to pay for the higher fuel cost of running the peaking unit.

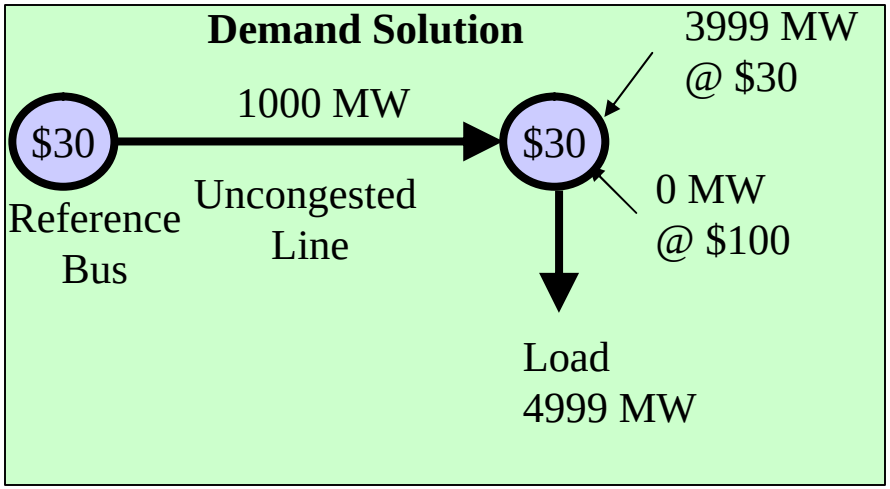
Congestion impacts from different viewpoints

- Load perspective
  - TCC revenue potentially offsets reduce impact from $350,000 to $280,000
  - Results of contracts for differences and bilateral contracts can reduce impact even further
- Merchant Transmission builder's perspective
  - TCC revenue associated with building facility is $0
- Transmission Owner builder's perspective
  - Building facility and recovering charges through TSC rates is offset by decreased TCC revenues. Expansion beyond $280,000 results in higher combined TSC rates and market cost
- Economist's perspective
  - Only cost of congestion is the $70 charge

Alternative Solutions Must be considered

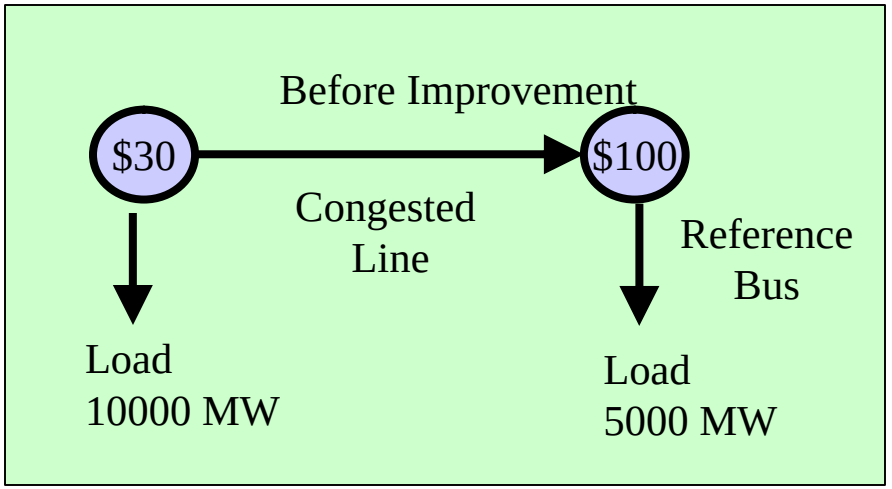
- Addition of 1 MW of $30 generation eliminates congestion
- Addition of 1 MW of DSM eliminates congestion





Potential Problem with Measurement Method

- Theory says that choice of reference bus should not make a difference in functioning of market.
- Move Reference Bus to the $100 Bus
- Congestion Cost ($30-$100) x 10000 MW = -$700,000



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