

# Economic Dispatch and HB 151/SB 123

House Resources Committee

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# Economic Dispatch

- Economic dispatch minimizes operating expenses of a system
- Economic dispatch is the optimal, most efficient use of existing generation and transmission resources to meet the needs of end-use customers in an interconnected electric utility network, subject to necessary reliability constraints
  - Economic dispatch is accomplished by ignoring who owns which generation and transmission assets (“you built it, you bought it”)
  - Because the fixed (or capital) costs of generation and transmission ownership must be paid for by the owners of those assets, no matter what, there should be mutual gains from trade (for both buyer and seller) if the most efficient assets are deployed

# Toy Example

- Two utilities
- Utility A has enough generation to meet both Utility A and Utility B's load
- Utility A's generation is more efficient than Utility B's generation
- With economic dispatch only Utility A's generation would run, and the two utilities engage in a transaction

# HB 151/SB 123 and Economic Dispatch

- Helps minimize the future capital cost additions of a system
  - Focus is on ensuring efficient investment in utility plant to reliably meet demand (about half of the overall system cost)
- Does not mandate economic dispatch
- Does facilitate economic dispatch by addressing barriers
  - Facilitates new transmission build, if that's efficient, by providing a business model for same (lack of transmission can reduce efficient exchange of power across service territories)
  - Facilitates new competitive entrants into the system by enabling a one-stop shop for open access interconnection agreements
  - Lays the groundwork for rationalizing total transmission tariffs

# Transmission Rates and Economic Dispatch

- Remember previous example
- Now imagine that there is a per-MWh charge for moving power from Utility A to Utility B
- If the 'toll road' cost is too high, *and paid for by each MWh*, then the power transaction does not take place
- Conversely, if the cost of the transmission (road) is paid on a fixed basis then the power transactions do take place

# Appendix:

## Different Types/Scopes of Economic Dispatch

- Each utility on its own engages in “economic dispatch” *within their own service territories*
- A “Tight Pool” among two or more utilities is a wholesale power contract that ensures economic dispatch *among those utilities*
- A “Unified System Operator” for the Railbelt would be a non-profit, independent entity that performs economic dispatch across all entities within the Railbelt according to specified transaction/commercial terms
- An “Independent System Operator” for the Railbelt would be a non-profit, independent entity according to generation market bids by all Railbelt participants