

ESTIMATES OF THE VALUE OF AN AVOIDED CASCADING DISTURBANCE IN THE GRID WEST FOOTPRINT

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If:

- 2004 Gross Product for Grid West Region (based on BEA and BC data for MT, ID, UT, OR, WA, WY) : US \$761,208 million
- 85% of production occurs on weekdays, 15% on weekends. (based on US Census Bureau wage/earnings data).
- Grid West avoids 1 cascading disturbance affecting 1 productive day every 20 years *or* it avoids 1 cascading disturbance affecting 1 productive day every 15 years.
- If there is a disturbance, 50% of the day's GDP is lost, the rest will be recovered in future production or was protected by back-up generators.

Then:

- 1 weekday's GDP = \$2,489,000,000
- 1 weekend day's GDP = \$1,098,000,000
- 1 cascading disturbance of 1 day duration reduces GDP by \$548,948,000 to \$1,244,283,000.
- Annualizing that over 20 years means annual reliability savings resulting from Grid West would be \$27 million to \$62 million every year.
- If that same outage were avoided every 15 years, the annualized benefits would be \$37 to \$83 million per year.

This Estimate Is Conservative Because:

- It does not take into account the growth in GDP that will occur in the out years – it is based on 2004 data.
- It assumes that GDP will be reduced by 50% for every day of lost productivity, as opposed to 100% assumed in other studies.
- It does not take into account the following costs often associated with cascading disturbances:
 - Spoilage of stock on hand
 - Agricultural losses
 - Utility level costs of a blackstart
 - Potential costs of unrest (riots, looting, etc.)
- It does not count the costs outside of WA, OR, UT, ID, WY and MT of an outage (i.e., CA, AZ, NV, etc.)