

# Managing Challenges of the Modern Grid

## “Major Events are still the SuperBowl for Utilities”

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# Major Challenge!

- Customers deal with utilities when:
  - Build a house
  - Move locations
  - Have billing issues
  - Lights are out
- Only the last one is when there are many people in the same situation with media attention.

# Smart Grid

- Smart Grid brings some great information to the utilities.
- But-
  - SmartGrid technologies “Do not make one old pole new”.
  - Infrastructure still fails from
    - Wind, trees, lightning, animals, aging, insulation failure and human and equipment error.
  - Regulators believe that SmartGrid spending is not incremental.

# Regulatory Impacts

- After spending millions on Smart Grid, regulators will continue to expect good performance during storms.
- Regulators after the large storm issues in Northeast will impose high penalties on perceived non-performance in the Twitter Era.
- Regulators will expect perfect information and predictions for storm restoration.

# Some Common Themes

- Customer Attitude
  - Previous to these storms, large wide scale efforts took up to 6 days without significant criticism.
  - Society is demanding a faster restoration effort
    - (3 days has been mentioned by several politicians)
  - Better and more specific communications on Estimated Time to Repair (ETR) within as short as 6 hours for a Global estimate.
  - New communications such as twitter, texts and facebook are now becoming standard operations.

# Storm Metrics

- Previous storm performance was based on days to restore all customers and public perception.
- New metrics are being developed to judge utility performance.
  - Most are based on following Utility Emergency Plans.
  - Large Fines possible.
- NY Regulators are working a Metric Scorecard.

# Infrastructure Issues

- Many Questions on condition of Assets and System Design
  - Storm Hardening – make assets less susceptible to storm damage.
  - Resiliency- ability to recover quickly from damage to any facilities' components or dependent external systems.

# New Tools and Metrics

- New information is allowing better analysis on outages.
  - Ability to merge GIS/OM/weather data on maps
- CEMI- Customers Experiencing Multiple Interruptions
- CELDI- Customers Experiencing Lengthy Duration Interruptions



# Conclusions

- Regulators and Customers are demanding quicker responses to issues.
- New reliability metrics are coming
- Capital Plans need to include Hardening, Resiliency and new asset strategies.
- Emergency Planning Efforts-A high priority
- Smart Grid Technologies can be part of the solution, but not the whole solution