

# Consequences of Blackout 2003

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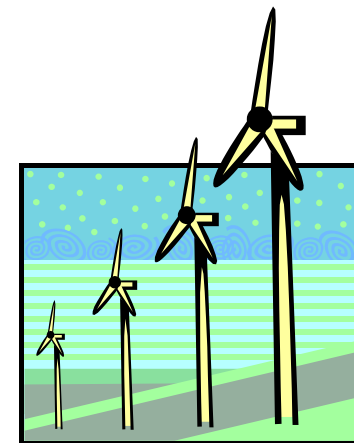
## Why “Why” Doesn’t Matter

- Take months to figure out
- Affected parties will dispute conclusions
- Governments will act without answers
- Stakeholders will use Blackout as argument for what they want
- Difficult to assess financial liability



## More Capital Spending Needed?

- Historically low T&D spending
- May not replace old plant
- Little application of new technologies





## Why Low Distribution Spending?

- Rate caps
- Better things to do with the money
- Uncertainty about regulation
- Overspent in the past



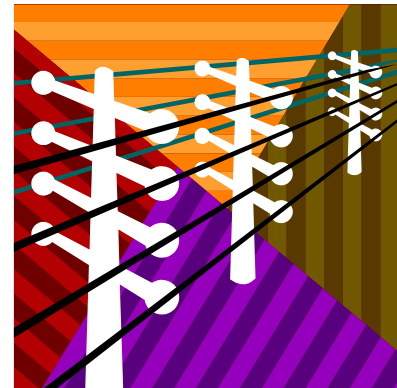
## Why Low Transmission Spending?

- Low returns
- Better things to do with money
- Thwart competition
- Uncertainty about control
- Uncertainty about regulation
- Rate caps at retail



## Quantifying the Shortfall

- Transmission
- Distribution





## Can Utilities Afford to Spend?

- Financial collapses in energy sector
- Lowered bond ratings
- Utility financial strength





## Can Customers Afford the Upgrade?

- Untabulated costs of poor service
- Distribution impact
- Transmission impact
- Possible offsets





## Will Investors Fork Over the Dough?

- Old expectations
- New expectations
- Need for attractive returns



## Industry Restructuring

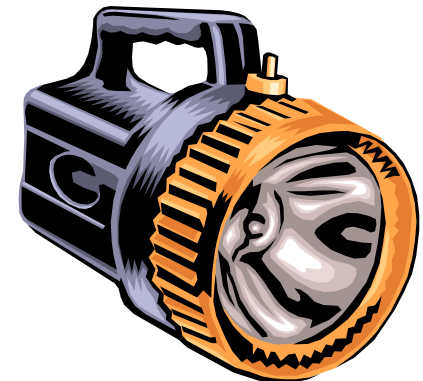
- Lights out in restructured states
- ISOs no protection
- Restructuring on hold everywhere else
- SMD sacrificed





## Nail in the Coffin?

- Retailing a non-starter
- Generators collapse
- Customer benefits minimal
- Lights go out
- Post hoc ergo propter hoc





## Politics

- Richardson weighs in
- Bush blackouts
- Electricity vs. Energy Bill
- State vs. Federal
- ANWR the key



## Winners or Losers?

- NERC
- FERC
- SMD
- ISO
- EPRI



## Assessing Responsibility

- Legal
- Financial
- Split the baby
- Fall guys





## Nobody Owns the Problem

- ISO
- Transmission owner
- RCs
- Regulator

Which means nobody in particular makes more or less money or gets hired or fired based on customer assessment of reliability



## Economic Incentives Lacking

- System operator not charged with improving efficiency
- No payments/penalties for reliability
- Cost to consumer vs. cost to network
- Bludgeons vs. scalpels





## Big Spending Backfire?

- Customer reacts to price
- Customer takes mitigative measures
- It happens anyway
- T&D stranded costs



## Regulators Upset

- Spending up
- Power costs up
- Prices have to rise
- Regulators feel hoodwinked
- Lower returns





## Conventional Solution the Best?

- The bigger they are the harder they fall
- System too complicated
- Once every 13 years : is that bad?
- Mitigation at local level vs. prevention at regional/national level



## Summary

- Need spending anyway
- Can finance it
- Regulation not legislation key to investment
- Government will act
- Needs system that focuses responsibility
- Maybe cannot prevent event
- More attention to local solutions