



Edison Electric Institute

Power by AssociationSM

EEI Update

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Today's Discussion

- Current Electricity Landscape
 - Emerging Issues
 - Infrastructure investment
 - M&A
 - Political landscape
 - Grid modernization

Changing Electric Utility Landscape

- **Utility industry has embarked on a major investment cycle, driven by the need to address:**
 - Generation, Transmission, and Distribution to ensure reliability
 - Energy Efficiency and deploying new technologies (SG, renewables)
 - Significant Environmental CAPEX
- **Concerns about the Environment has Changed our Power Supply Mix**
 - Short-term: Rely on Energy Efficiency, Renewables, and **Natural Gas**
 - Medium-term: Targets should be harmonized with the development and commercial deployment of advanced technologies and measures (e.g., Nuclear Energy, Advanced Coal Technologies with Carbon Capture and Storage, Plug-in Electric Vehicles, and Smart Grid)
- **Infrastructure costs going up**

Changing Electric Utility Landscape (2)

- An Increasing Amount of Rate Cases to Pay for Investments
- Up-tick in M&A Activity
- Customers more reliant upon in “high-quality” electricity
- The Utility Role for Driving *New Technology* has become increasingly complicated
 - *Current combination of low economic growth, flat electricity demand growth, deficit concerns and sustained high unemployment is slowing down the deployment of smart technologies including smart grid*
 - *Bad press – need champions!!!*
- New Congress with vastly different priorities

Landscape

Reliability as First Priority

- Customers expectations for service quality are higher, and rising
 - Electronic commerce
 - Highly precise voltage and power quality needs
 - Service outages more than costly facts of life
 - Weather
 - Equipment failure
 - Human error
- Restoration performance has improved significantly

Game Changers

- **Policies:** especially environmental
- **Fuel Supply:** especially shale gas discoveries
 - Japanese Tragedy factor?
- **Technologies** and how it may change the industry-customer relationship
 - *At the door step(?)*
 - *Customers fully participating in DR programs thanks to technology improvements on both sides of the meter*
 - *The day when customers can monetize and marry demand and supply-side management*



Emerging Infrastructure Issues

Reliability and Environmental Mitigation

Infrastructure Needs

- **Transmission** (\$297.8 billion) – To support new non-wind generation, bring wind generation to market, reinforce the grid for reliability
- **Distribution** (\$581.5 billion) - To replace aging infrastructure, connect new customers, enhance reliability, improve power quality, deploy “Smart Grid” components
- **Generation** (\$951 billion) – To serve new load, meet renewable resource mandates, build new nuclear generation, build new coal generation with CCS, retire carbon-intensive generation, deploy advanced metering and programs for realistically achievable EE/DR improvement

Financial Trends for Electric Utilities

Mergers & Acquisitions

M&A Themes in 2010-'11

- Feb. 11 — FE-AYE: Improve generation mix, operating performance, transmission growth, financial strength
- Apr. 28 — PPL-E.ON U.S.: Increase regulated focus
- Oct. 18 — NU-NST: Leverage NSTAR's financial strength into Northeast Utilities' transmission growth ops
- Jan. 10, 2011 — DUK/PGN – Greater financial strength for environmental capex, need greater efficiency
- March 2011 – Exelon/Constellation – Enhance energy portfolio

Changing M&A Trends

- Prior mega mergers focused on increasing scale and scope of competitive generation operations, with a multi-regional focus
- Recent merger announcements:
 - Focus on creating a larger regional footprint for regulated utility operations
 - Upsize the balance sheet to aid with future environmental compliance, allow for larger capex projects such as nuclear, transmission, etc.
- Complementary generation fleets, renewable mandates
- Local economy and Jobs impact remain as key factors

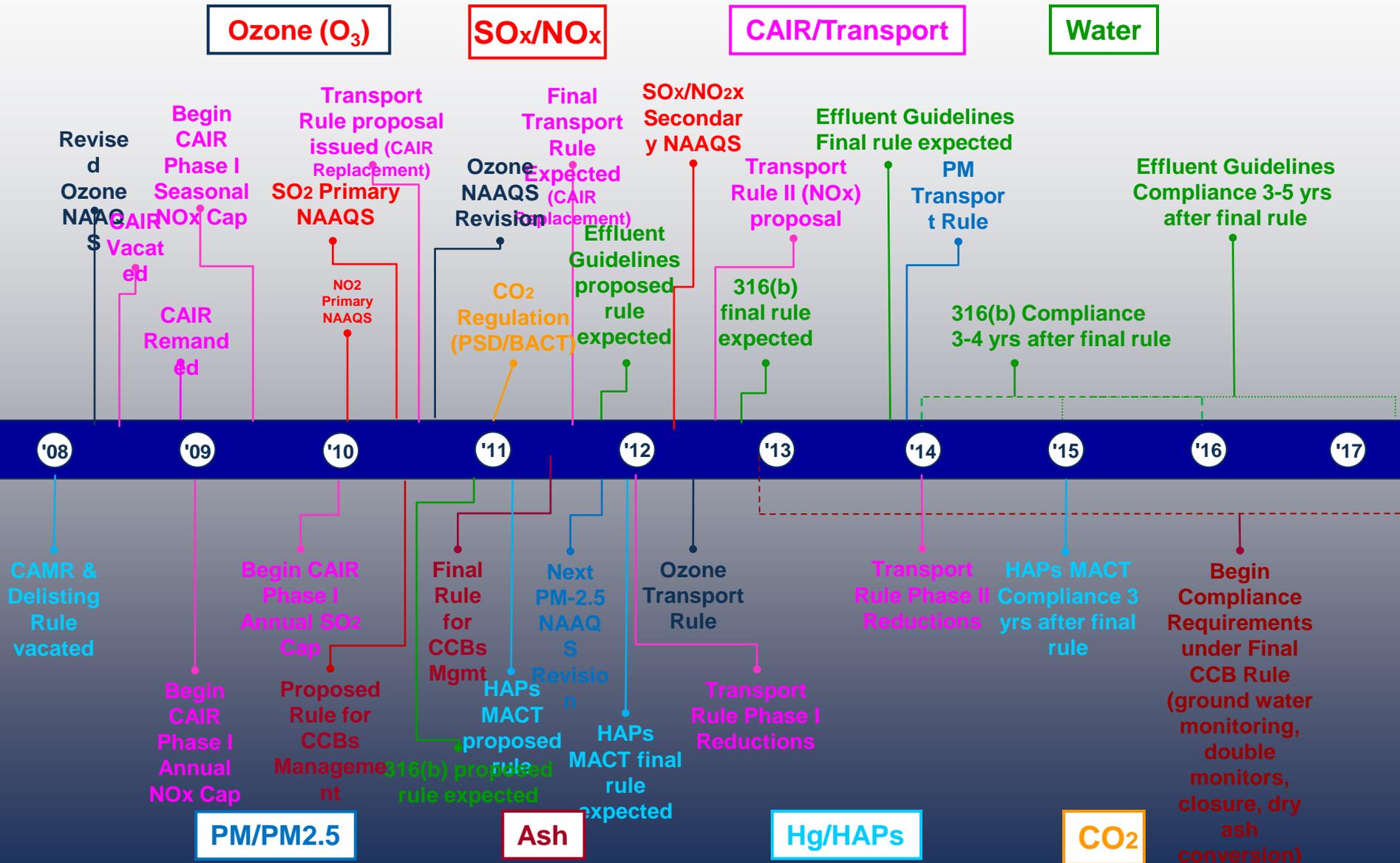
Environmental Challenges



Climate Policy: Washington

- No climate legislation likely
- Eye now on EPA: Will start this year regulating GHG's under a Clear Air Act (CAA)
- This will be an especially complicated process
 - In addition to regulating GHG, EPA also will be proposing other CAA, Clean Water Act, and Resource Conservation and Recovery Act rules during the next two years.
- These rules will greatly affect the electric industry's generation fleet.
 - Calls to slow the compliance time tables
- Expect continued attention on new environmental regulations for coal generation, not only for carbon emissions, but also for hazardous air pollutants (HAP), coal ash disposal, and more stringent standards for cooling towers for both coal and nuclear facilities

Possible Timeline for Environmental Regulatory Requirements for the Utility Industry



New Congress – Energy Legislation

- Prospects for comprehensive energy legislation or climate legislation nonexistent
- Aggressive oversight hearings of Environmental Protection Agency (EPA)
- Bills have been introduced in the House
 - Delay EPA GHG regulations
 - Pre-empt EPA regulation of GHG emissions
 - Block funding for implementation of EPA regulations on GHGs emissions and other issues
- President likely to veto any measures aimed at blocking EPA regulations

Near Term Decisions on Electric Generation: *The Simple Math*

- + SIGNIFICANT ENVIRONMENT REGULATIONS
- + RENEWABLES MANDATES
- + UNKNOWN COST OF CARBON
- + LOW GAS PRICES
- + SLOW TO MODERATE ECONOMIC RECOVERY

- = NAT. GAS COMBINED CYCLE BUILD
- = RENEWABLES INVESTMENT (MOSTLY WIND)
- = RETIREMENTS OF SMALL AND OLD COAL FLEET
- = RETROFIT OF NEWER AND LARGER COAL FLEET
- = LITTLE TO NO NEW COAL
- = NUCLEAR RENAISSANCE(?)
- = DISTRIBUTED RESOURCES

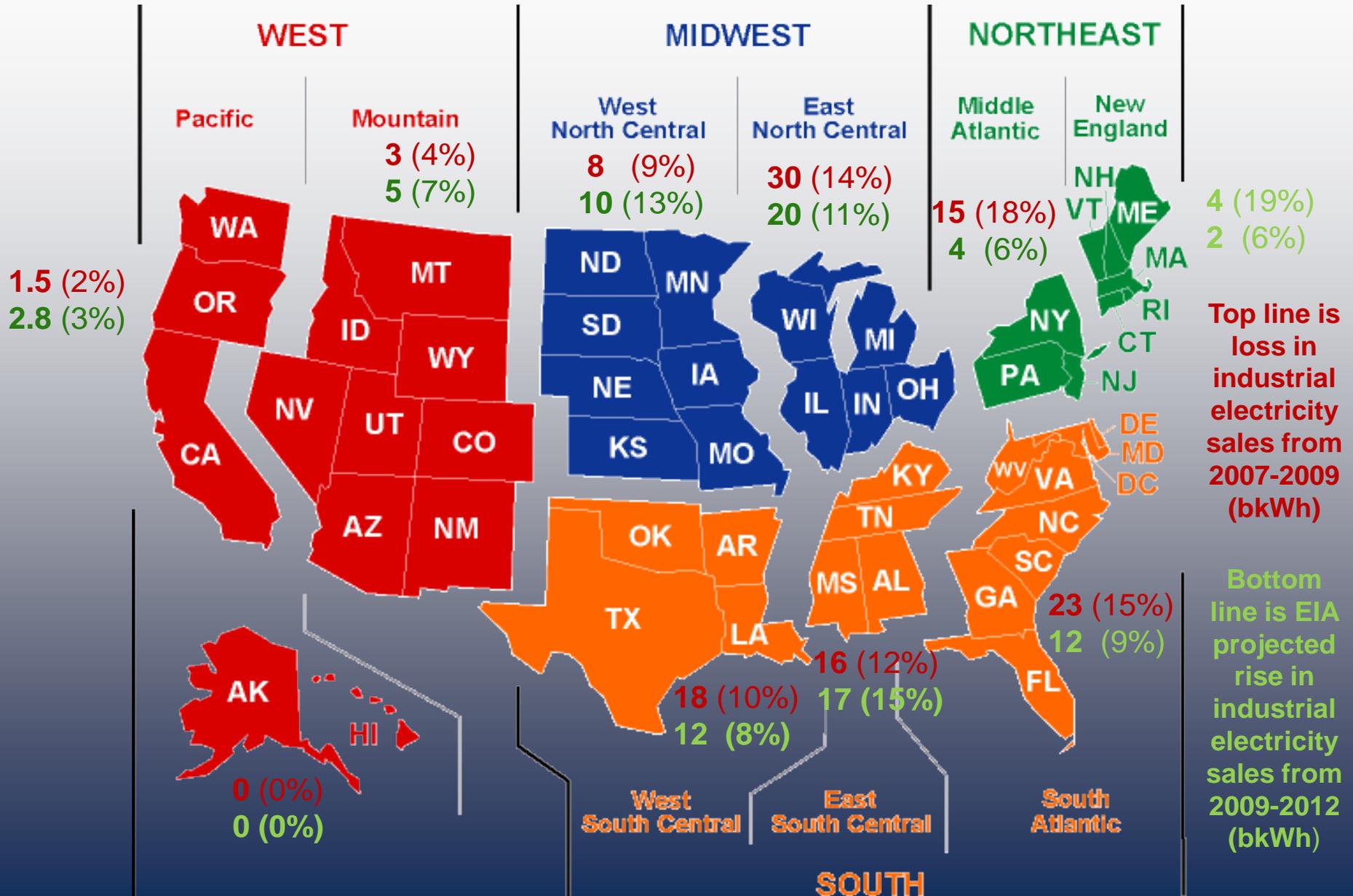
Shale Gas - Key Questions

- Environment Consequences?
- At What Price?
- Long-Term Viability/As Future Power Supply Source?
- Availability of Long-Term Contracts?
- Impact on Climate Goals?

Economics and Making the Investments Work for Customers



Recession and Recovery: Industrial Electricity Sales

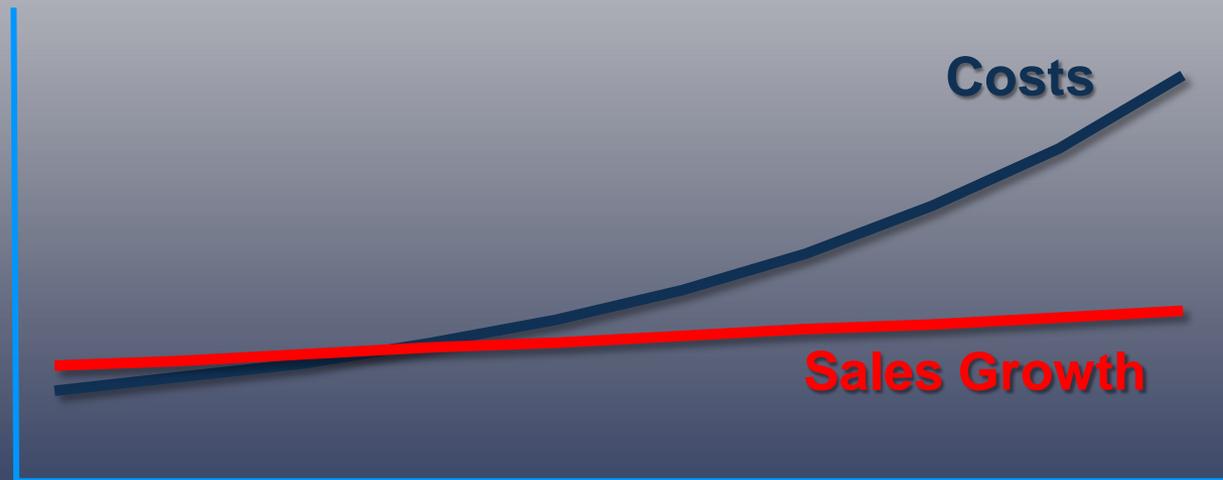


A Paradigm Shift

THEN... large periodic projects to support strong load growth required infrequent, but major, rate cases



NOW... Ongoing investment well above depreciation and slower sales growth requires ongoing rate increases



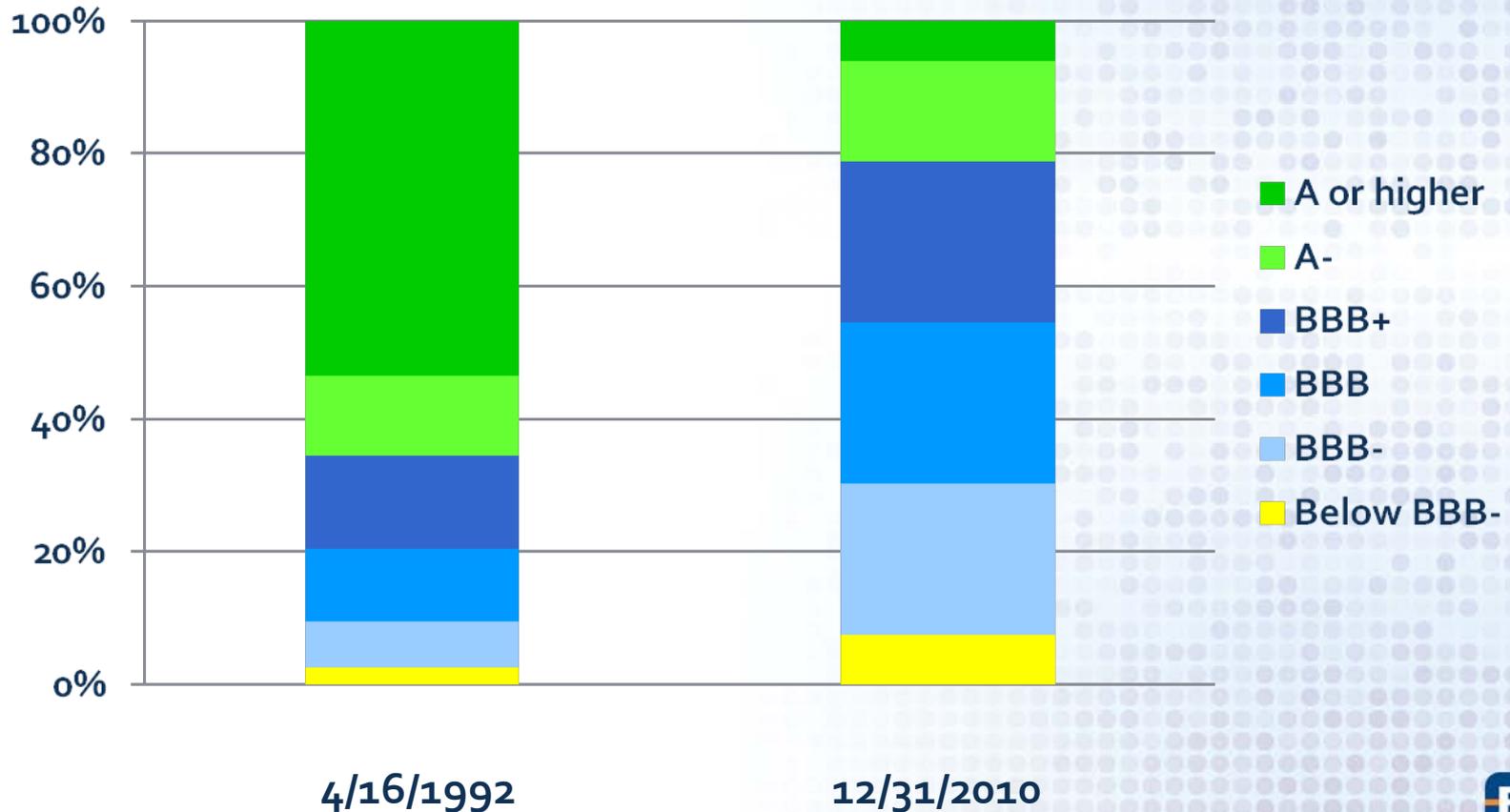
Overview of the Problem



Decline in Credit Quality

1992 vs. 2010

S&P Credit Ratings Distribution, Electric Utilities



Overview of the Solution: Electric Ratemaking

- **Innovative regulatory policies and mechanisms:**
 - Future test year
 - Tracker/rider mechanisms
 - CWIP in rate base
 - Formula rate plans
 - Decoupling
 - Performance-based rate plans (rate caps, revenue caps)
- **Strategies to mitigate rate shock, preserve credit worthiness, incent efficient management**

A Path Forward

- New rate regulatory approaches essential to financing needed infrastructure in today's environment and protecting consumers
- There is no standard framework, but there is a fairly standard tool kit of component policies
- Rebalancing risk does not mean shifting all the risk to consumers.



Thanks
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