



Edison Electric Institute

*Power by Association<sup>SM</sup>*

# Electric Utility Industry Update

Steve Kiesner  
Director, National Customer Markets  
Edison Electric Institute

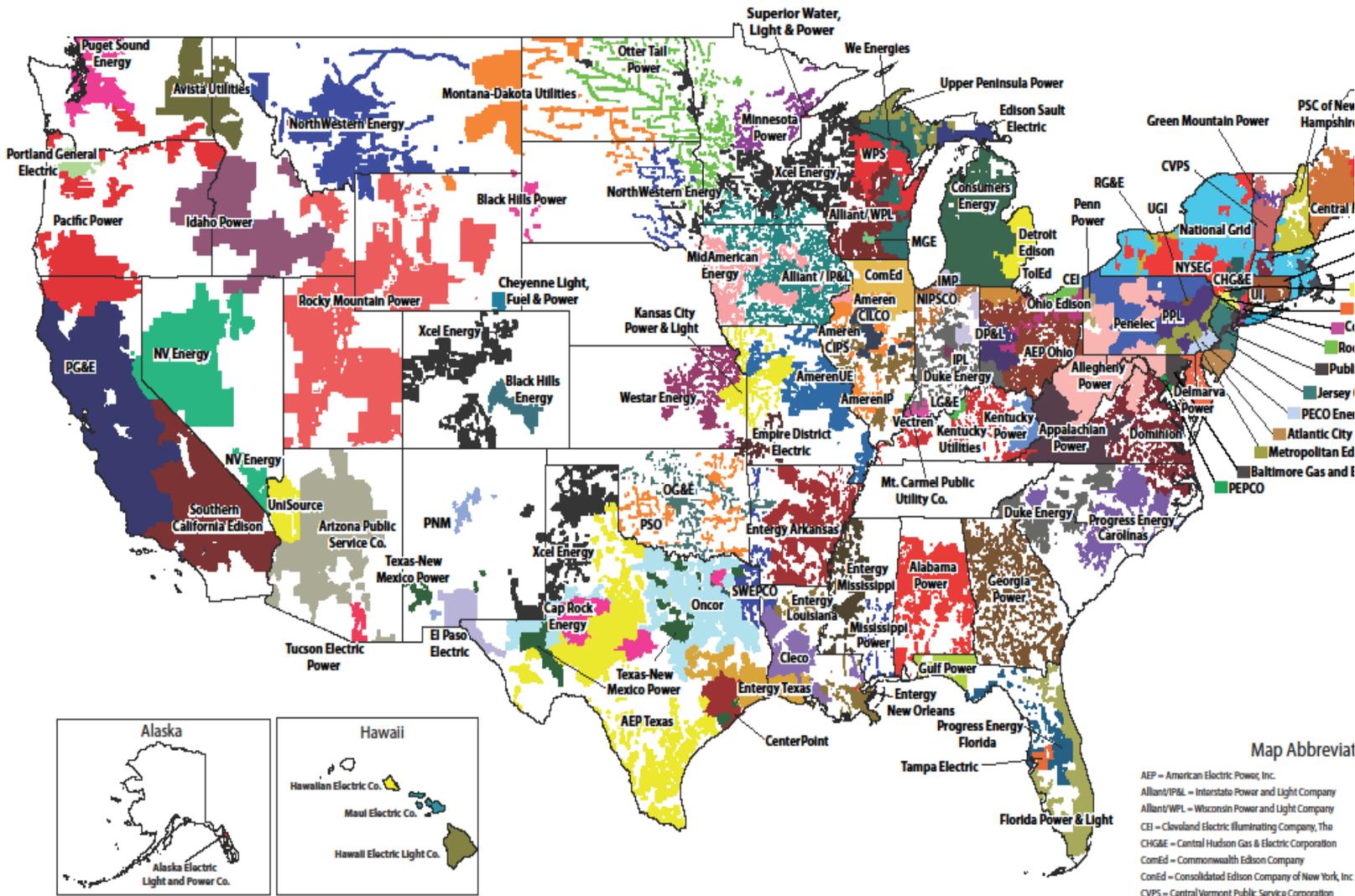
**FUPWG Spring 2012**

April 12, 2012

# Edison Electric Institute

- Investor-Owned Electric Companies
  - Membership includes
    - 200 US companies,
    - More than 65 international affiliates and
    - 170 associates
  - US members
    - Serve more than 95% of the ultimate customers in the investor-owned segment of the industry and
    - Nearly 70% of all electric utility ultimate customers, and
  - Our mission focuses on advocating public policy; expanding market opportunities; and providing strategic business information





# Agenda

- **Significant Industry Trends**
  - **Utility Infrastructure Investments**
  - **Generation and Fuel Landscape**
  - **Electricity Model Changes**
- **Industry Priorities with our Federal Gov't/DoD customers in 2012**

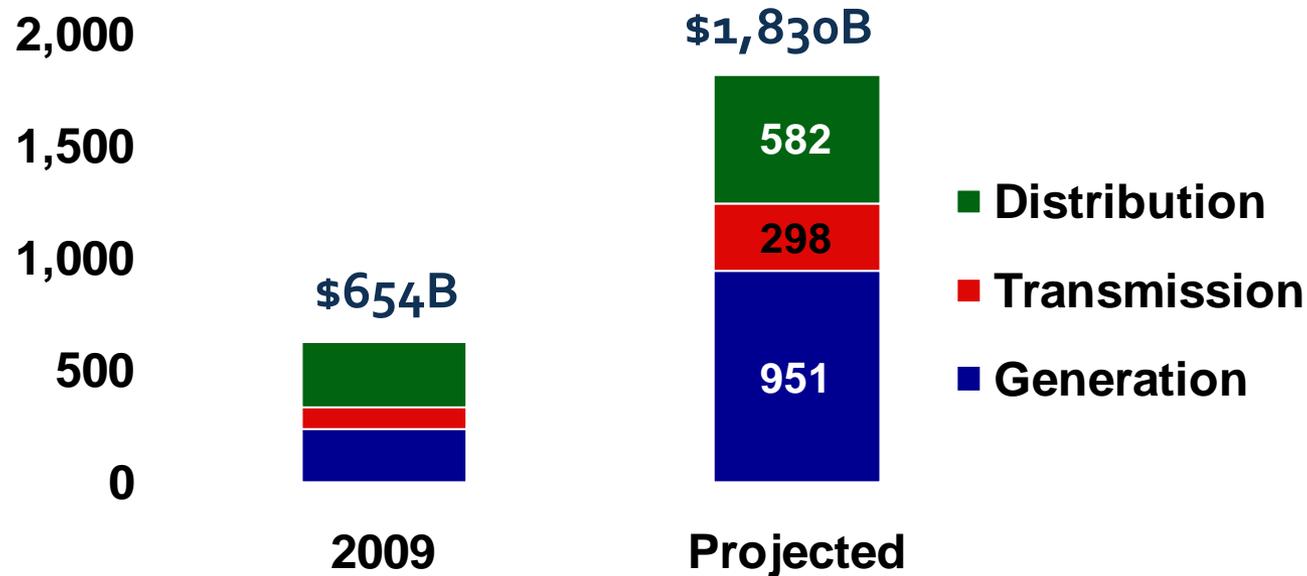
# MegaTrends:

## *Increasing Amount of Rate Cases To Ensure Reliability & Address Environment/Public Policy Requirements*

- **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
- **Increasing 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)
- **We are no longer a declining cost industry**

# CapEx - Looking Out 20 Years

By 2030, the electric utility industry will need to make infrastructure investments of \$1,830 Billion



This level of investment is nearly triple the US Shareholder –Owned Electric Utilities' current net plant value of roughly \$650 billion (12/3 1/10 = \$737 B)

Source: *Transforming America's Power Industry*, The Brattle Group, November 2008

# Environmental Regulatory Challenges: *2012 and Beyond*

## Air

Utility MACT

Interstate  
Transport  
(CAIR/CSAPR)

Regional  
Haze/Visibility

Multiple  
NAAQS

New Source  
Review (NSR)

## Climate

NSPS- New  
& Modified  
Sources

NSPS-  
Existing  
Sources

BACT  
Permitting

International  
Negotiations

## Water

316(b)

Effluent  
Guidelines  
Limitations

Waters of the  
United States

NPDES  
Pesticide  
Permits

Waterbody-  
Specific  
Standards

## Land & Natural Resources

Transmission  
Siting and  
Permitting

Avian  
Protection

Endangered  
Species

Vegetation  
Management

## Waste & Chemical Management

Coal Ash

PCBs in  
Electrical  
Equipment

HazMat  
Transport

# Paradigm Shift with Generation/Fuel:

- **Coal retirements**
- **Natural Gas: Path of Least Resistance**
  - **Short term:** Stay giddy: shale, pipelines, high inventories
  - **Long-term:** Watch closely
    - LNG exports will take time
    - Dash to Gas in the electric sector (est. 10-15 billion tons/day in next 10 years)
    - Development of Gas in the transportation sector
- **Nuclear(?): future RPS and storage would make investments more attractive**
- **Renewables**
  - Wind/solar will get more cost effective overtime
  - Cheap Natural Gas, production tax credits, credit worthiness
  - Emerging back-generation, storage concerns
    - Stand-by, back-up charges could get higher for end-user
- **Industry still must diversify to hedge against future price risks**

# Business Model Shift

## *EPRI's Perspective – Future Industry*

- **Tomorrow's system must handle two-way flow of electricity and info, to automate controls for a widely distributed energy delivery network**
  - No longer primary dependence on central station power and one-way flow to power
  - Increased dependence on distributed and central station renewables/storage
  - Increased demand response



# Industry and Federal Customer Priorities in 2012

# Extend and Clarify UESC Authorization

- **Extend term to 25 years via legislation and/or broader Areawide Umbrella authorization**
  - To reach RE goals and significant EE goals paybacks are going to beyond 10 years
- **Promote Efficiency Policies that Encourage Deep Savings to Help You Reach Aggressive Goals**
  - Put a premium on appropriately using financing options with appropriated dollars (blend)
  - vs. using appropriated dollars for projects with short term paybacks

# Develop a More Standardized Approach with the Services

- **Standard Forms**

- To fill out for projects and training describing how we can present projects in a way that makes your jobs easier.
- Clarify expectations so they are made clear to utilities
- Currently this varies from Service to Service and even from region to region within a Service.

- This could reduce:

- Contracting time and effort
- and can gain economies if the Services are clear about what the installation wants for information and how it wants that information presented.

# Resolve Issues Associated with State Electricity Retail Laws

- Usurping state electricity laws regulations creates a negative environment.
  - Commissions will be very concerned about cross subsidization
- Focus on how utilities can help the Services meet their RE goals in a manner that benefits the military and other customers
  - Not on an impending battle for supremacy that has the potential to result in significant state-federal conflicts.
- As a practical matter, developers would not want to wade into this battle

# Continue to Emphasize that Installations Should Work Closely with Utilities Early in the RE Planning Process

- Utility's need to study how projects impact system
- Where and how renewable projects are developed and interconnected can have a strong influence on the reliability and integrity of the utility grid.
- Back-up and stand-by concerns will grow as more RE added to system
- We want to help the Feds/DoD understand these critical issues
- Good communications will lead to both the utility and DoD in knowing upfront the operational issues before wrong and costly decisions are made.
  - Eliminate the unknowns

# Siting Utility Generating Projects (renewable and conventional) at Installations.

- Always consider the utility option (fashioned after Warner-Robins and Tinker model)
- EEI developed a model agreement for siting utility projects on installations that installations and utilities can use a template.
  - Premium for renewable power may be required in some states
- Won't always be the silver bullet, but in this budget environment, it is a proven solution that should be consider.
  - In short, start with utilities to explore synergies

# Conclusion

- We look forward to your suggestions as to how we can improve our working relationship with our Federal and DoD customers