
Treatment of Energy Efficiency and Resource Adequacy in Utility Integrated Resource Plans

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Scope and objectives

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- **Project scope: Comparative analysis of resource plans from 12 Western utilities**

- **Project objectives: review and analyze emerging issues:**

- Resource additions and resource adequacy
- Risk analysis and portfolio management
- Treatment of energy efficiency
- Treatment of renewable energy

- **Summarize how the plans handle these issues, and identify best practices and recommendations.**

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Today's presentation

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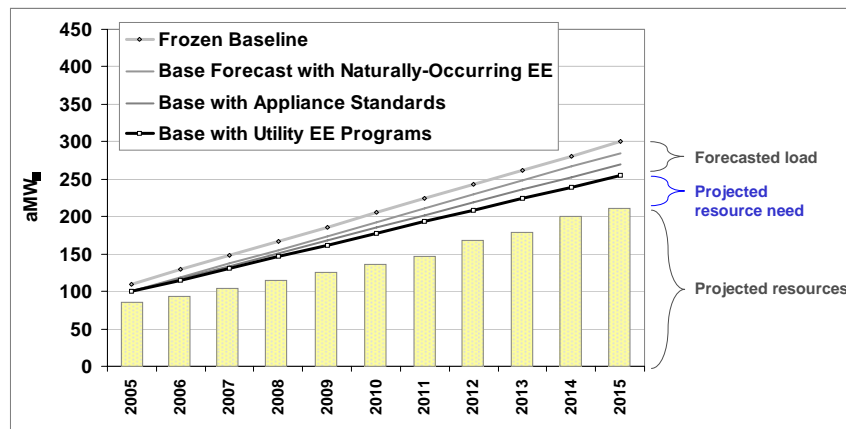
- **Treatment of Energy Efficiency (EE) in Resource Plans:**
 - Why does treatment of EE matter?
 - How is EE treated, assessed, and represented in the plans?
- **What improvements could be made in the consistency of reporting on EE resources data to facilitate resource assessment?**

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Establishing the “Resource Need” Schematic of standard approach

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- **Magnitude of Resource Need typically defined as difference between forecasted load and projected resources**
- **Energy efficiency “resources” often imbedded in the load forecast or unclear**
 - Difficult to assess impact of EE and distinguish between naturally-occurring EE, utility EE programs and other EE strategies (codes, standards).

Why Does Treatment of Energy Efficiency in the Resource Plans Matter?

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- EE is or is likely to become a significant resource
 - In some states, the cumulative EE impacts may approach or exceed the level of resource adequacy requirements
 - WGA is examining the feasibility of and actions that would be needed to increase EE by 20% by 2020
- EE affects the *level* of supply resources needed to meet resource adequacy requirements
- Inconsistencies in EE treatment and insufficient EE data across individual utility resource plans contribute to uncertainty of regional or west-wide resource assessments and determinations of resource adequacy

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Treatment of EE in Western Resource Plans: Two Approaches

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- EE treated as a load modifier (implicit or unclear) vs. fully valued as a resource (explicit and clearly identified)
 - EE implicit or assumed to be in the base load forecast, but not necessarily clearly identified in terms of how much or which types of EE
 - EE clearly identified as a resource, and EE then reduces the initial base load forecast explicitly
- Which types of EE resources are considered and addressed (and how are they addressed)
 - “Naturally-occurring” EE
 - Utility ratepayer-funded EE programs
 - Appliance standards
 - Building codes

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Inconsistencies in EE Treatment and Insufficient Data on EE in Western Resource Plans

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- Short/mid-term program plans vs. longer-term EE/DSM cumulative targets
 - More detail in short-term program plans vs. unspecified cumulative
- Incremental future EE impacts vs. accounting for cumulative impacts of past or current EE resources
- Planning horizon tends to be short for EE resources vs. 10-15 years for resource plans
- Very limited data on capacity (MW) impacts
 - More data presented as aMW, but still not complete
- Unclear how the *level* of EE resources is determined
 - May be based on other factors (budgets, prior agreements, etc.)
 - Generally does not appear to be based on EE potential or cost-effectiveness analysis
- Cost-effectiveness approaches; avoided costs (basis and level)
- Lack of transparency, including redaction of key data

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