



The Evolution of Integrated Resource Planning ---- An Arkansas and Electric Cooperative Perspective

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NARUC ERE & Electricity Joint Meeting

February 17, 2009



New Arkansas IRP Rules

- New IRP process initiated by APSC in 2006; Order and Rules issued in 2007
- The Rules were deemed necessary to:
 - recognize industry changes
 - recognize new resource options
 - introduce stakeholder processes
 - encompass regional planning
 - provide greater transparency
 - ensure comprehensive evaluation
 - ensure regulatory awareness

Key Objectives for Resource Planning Rules



- **Comparable Resource Consideration** – generation, transmission, DSM, wholesale market options
- **Regional Resource Evaluation** – across multiple jurisdictions and on an integrated regional planning basis
- **Regional transmission plan** must be developed independently but integrated into overall resource planning process; generation, transmission and demand response options are to be synthesized and optimized
- **Multiple Stakeholder Involvement** – early awareness and inclusion



Key Objectives of Rule (cont.)

- **Incorporation of significant externalities** (non-monetized costs and benefits) – should be “identified and acknowledged”
- **Evaluation of future risks and potential benefits of various developments:** “utility should put itself in a position to respond to anticipated economic conditions and technological advancements and changes, including environmental requirements”
- **Evaluation of fuel diversity** as hedge against risk and price
- **Develop and compare multiple IRPs** using different combinations of assumptions; compare based on net present value of the cost of each

Electric Cooperative Perspective



- Customers are our Member-Owners
- Least-cost and highest reliability electricity is core mission
- Resource planning process determines what is: needed, available, most reliable, lowest cost
- Options are ranked according to this criteria, and procurement decisions are made
- The technology that meets the need at lowest cost wins: no more, no less
- Cost-effectiveness and efficiency are key for all investment decisions

New Regional Resource Planning Opportunity



- RTOs, ICTs, RSCs and Regional Stakeholder Committees offer promise of greater regional planning and coordination
- Using collaborative data input, regional planning entities can view macro-system needs and prepare plans that optimize capacity and energy costs across multiple states and LSE load requirements
- With creativity and collegiality, state regulators and utilities can harmonize state processes with regional processes to produce optimal investment plans for new requirements

New Investment Needs But Financial Constraints



- U.S. needs 135,000 MW of new baseload generation over next 10 years
- Environmental compliance expenditures plus new generation will exceed most utilities' current balance sheets
- Renewable integration via \$80 billion of transmission investment is on top of that
- RPS and/or CO2 emission reduction costs are incremental to *that*
- Current liquidity crisis means not all needs get funded, plus cost will be high
- Translation: We need a different approach to prioritize and minimize costs for consumers

New Federal Resource Planning Expectations



- New federal objectives, if enacted into law, will require expanded regional planning and coordination of energy investments
- “Regional IRP” could be a rational vehicle to encompass:
 - New EHV transmission investment
 - RPS requirements
 - Regional DR and EE markets
 - Carbon markets
 - Smart Grid evaluation/investment
 - Large-scale nuclear development
 - Large-scale electric vehicle penetration



Final Thoughts: Think out of the Box, but Keep the Customer First

- New ideas are good, but traditional values are not outdated:
 - * Greatest reliability + Lowest Cost = Economic Prosperity + Quality of Life
- Theories need to be tested on a small scale, lest we repeat old mistakes
- Remember who pays the bills
- Evolution, not Revolution!

