Beyond the SBC: New Ways to Finance Efficiency

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March 15, 2005

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Many values of efficiency

- Long-term capacity & Energy benefits
- Peak load reduction
- Portfolio benefits – diversity, risk reduction
- Environmental benefits
- Avoided T & D
- Lower bills, economic productivity
- There are untapped income streams associated with each of these values
- Good news -- new opportunities
A wealth of new funding opportunities

1. Utility resource procurement
2. CEPS--Clean Energy Portfolio Standard includes EE and RE
3. FERC, RTO, wholesale markets
   - Resource adequacy payments
   - Transmission “open season” and the Efficient Reliability Standard
4. Carbon allowances for efficiency
5. Distributed utility planning
   - Efficiency avoids
6. Rate design for efficiency
7. And more...
(1) Back to basics: Procurement

- Regulators now see (or can be shown):
  - Standard Offer/ Default Service is the new utility franchise
  - Restructuring-- artificial price reductions are ending
  - Natural gas prices are rising

- Regulatory answers:
  - Reinventing IRP – Portfolio Management
  - “Efficiency first” loading policies
  - Gas DSM now obviously valuable
Key challenge:
Make Efficiency Profitable for Utilities

- In between rate cases (i.e., all the time), extra sales are profitable to utilities
- In many places: each saved kWh can save customer $.10, but cut $.04 from utility profits
- **Efficiency programs cutting sales by 5% can cut profits by 23%**
- Needed: rate policies to make efficiency profitable to utilities
- Key concepts: decoupling and PBR
(2) Clean Energy Portfolio Standards

- Irony of efficiency and renewables today
  - How about a production tax credit for EE?
  - Texas EPS: small % of load growth

- Another solution: extend RPS to a CEPS
  - Irony - Tiers may be needed to protect RE
  - A variant: Vermont Senate - S.52 (2005)
    - RPS must meet all *net* load growth (*up to* x%)
    - Thus, efficiency is automatically valued at its resource avoidance cost
(3) New opportunities at the wholesale level

- $100 billion needed for new wires?
- FERC’s policy schizophrenia:
  - LMP reveals locational value of resources  BUT
  - Rolled-in regional transmission tariffs mask those values, promote supply-side solutions
- DOE National Grid Study: explore non-transmission alternatives to transmission upgrades
- All-resource planning and acquisition process
- Open Season for Reliability and Congestion Relief
  - Efficient Reliability Standard
  - Resource parity – best, cheapest solution wins and gets equal security of cost recovery
- Example: BPA’s Non-Wires Solutions
Transmission and Non-Wires Choices: The “Efficient Reliability” Test

Before “socializing” the costs of a proposed reliability-enhancing investment through uplift or tariff, decision-makers (RTOs, PMAs, PUCs and FERC) should require a showing:

(a) that the relevant market is open to demand-side as well as supply resources;

(b) that the proposed investment is the lowest cost, reasonably-available measure to correct a remaining market failure; and

(c) that benefits will be widespread, and thus appropriate for broad-based funding.
Regional Resource Adequacy
Payments for Efficiency

- Opportunity: FERC and RTOs are paying for forward capacity
- Why resource adequacy requirements?
  - Stable reserve margin needed
  - Boom-bust not good enough for power grid
  - Investors need predictable payments
- Key point: **Demand reduction through efficiency** also adds to reserve margin
  - Neutral rules should support both demand reductions and supply additions that add to the reserve margin
(4) Carbon allowances for efficiency

- State and regional cap-and-trade systems are emerging
- Efficiency is the low-cost carbon answer
- Design allowance systems to support efficiency:
  - Load-side cap and trade – automatically gives carbon value to load reductions
  - In a supply-side cap system – award at least 50% of credits to consumers
- Big opportunity: $1 Billion for efficiency?
Efficiency top ten list

- Restore efficiency in resource procurement
- Reform default service purchase rules
- Adopt “efficiency first” loading rules
- Remove the throughput incentive
- Compensate efficiency for the value of carbon avoidance
Top ten (con’t)

- Expand the RPS to include efficiency
- Rate design for efficiency
- Resource adequacy -- regional capacity payments for efficiency
- Apply the Efficient Reliability Standard in transmission expansion decisions
- Require least-cost expansion planning for distribution utilities
For more information…

RAP papers on these topics:
• Portfolio Management
• “Profits and Progress” (decoupling sales and profits)
• Load-side cap and trade
• “Efficient Reliability: The Critical Role of Demand-Side Resources in Power Systems and Markets” (NARUC 2001)

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