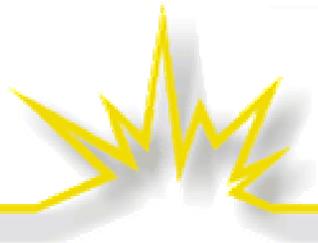


Beyond the SBC: New Ways to Finance Efficiency

Richard Cowart
ACEEE Washington DC
March 15, 2005

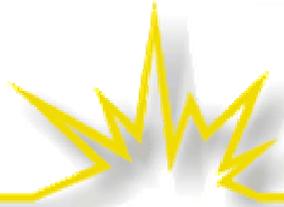


The Regulatory Assistance Project

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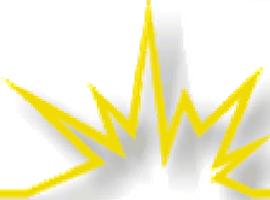
Website:
<http://www.raonline.org>



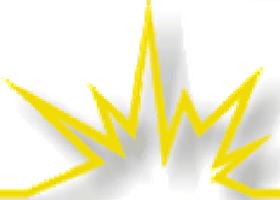
Many values of efficiency

- 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

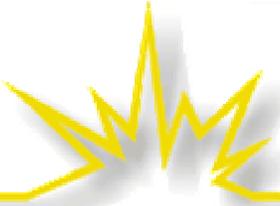


1. Utility resource procurement
2. CEPS--Clean Energy Portfolio Standard includes EE and RE
3. FERC, RTO, wholesale markets
 - ❖ Resource adequacy payments
 - ❖ Transmission “open season” and the Efficient Reliability Standard
4. Carbon allowances for efficiency
5. Distributed utility planning
 - Efficiency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



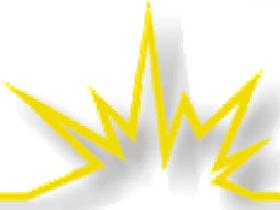
(1) Back to basics: Procurement

- 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



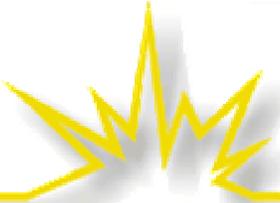
Key challenge: Make Efficiency Profitable for Utilities

- 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:

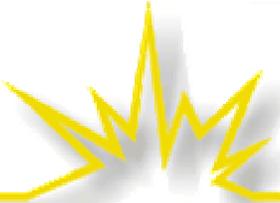
- (a) that the relevant market is open to demand-side as well as supply resources;
- (b) that the proposed investment is the lowest cost, reasonably-available measure to correct a remaining market failure;** and
- (c) that benefits will be widespread, and thus appropriate for broad-based funding.

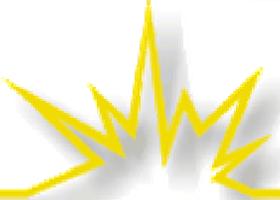


Regional Resource Adequacy Payments for Efficiency

- 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

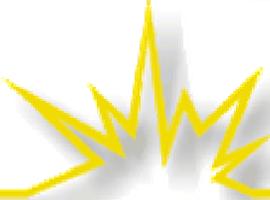
(4) Carbon allowances for efficiency

- 
- 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)
- **New England Demand Response Initiative** (NEDRI Report 2003)
- **Load-side cap and trade**
- **“Efficient Reliability: The Critical Role of Demand-Side Resources in Power Systems and Markets”** (NARUC 2001)

Web link at www.raponline.org

Email questions to RAPCowart@aol.com