

# Valuing Reliability Resources (All of Them)

NARUC Electricity Committee

Richard Sedano

July 12, 2004



## *The Regulatory Assistance Project*

*50 State Street, Suite 3  
Montpelier, Vermont USA 05602  
Tel: 802.223.8199  
Fax: 802.223.8172*

*177 Water St.  
Gardiner, Maine USA 04345  
Tel: 207.582.1135  
Fax: 207.582.1176*

Website:

<http://www.raponline.org>



# Introduction

---

## Regulatory Assistance Project

RAP is a non-profit organization, formed in 1992, that provides workshops and education assistance to state government officials on electric utility regulation. RAP is funded by the Energy Foundation, the US EPA and the US DOE.

Richard Sedano was Commissioner of the Vermont Department of Public Service, 1991-2001, and presently serves on the Montpelier Planning Commission



# Reliability Goal

---

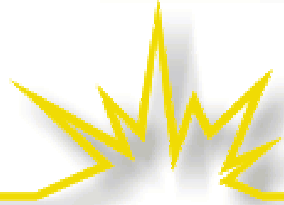
- NERC Standards
  - ❖ Consistent power quality
- Modified locally, as in New York
- Some customers may choose to pay more for more “9s”
- Reliability is a function of supply, demand and the transmission connecting them



# Who Is Causing the Valuing?

---

- Markets
  - ❖ Resource competitiveness, applicability
- Regulators
  - ❖ Through market rules, planning expectations
  - ❖ Due diligence
- Many advocate for markets while relying quite a lot on regulation.



# Planning: Key to Valuation

---

- Resource merchants are ready to address market needs, but what are those needs?
- Planning by a grid operator identifies grid needs
  - ❖ Transparent, everyone can see and respond



# Location Issue

---

- Reliability is a public good
- Causes of reliability stress are discrete and localized
- Reliability Value of resources is not the same everywhere **location** has value
  - ❖ And there must be a way to communicate that through regulation to all resource markets if reliability is to cost no more than it should



# Demand Resources Have Reliability Value

---

- Targeted local resources lighten the load on transmission and provide diverse sources of electricity
  - ❖ Distributed Generation
  - ❖ Demand Response
  - ❖ Energy Efficiency



# Traditional Solutions

---

- They work
- They are familiar
- They have problems
  - ❖ They can be expensive
  - ❖ They can be physically intrusive
  - ❖ They can take (too much) time to get in place
  - ❖ They are big and lumpy
  - ❖ They can cause other system problems



# Efficient Reliability: Effective Use of Planning

---

- Remove the bias from among reliability-driven investments
- Where transmission and generation are supported by transmission tariff for their reliability benefits, demand resources for the same purpose should also receive financial support
- Applicable to all categories of reliability
  - ❖ Operating reliability, resource adequacy, transmission adequacy

# Efficient Reliability Decision Rule



---

- ▶ **Before "socializing" the costs of a proposed reliability-enhancing investment through uplift or tariff, PUCs and FERC should first require a showing:**
  - that the relevant market is fully open to demand-side as well as supply resources;
  - that the proposed investment is the lowest cost, reasonably-available means to correct a remaining market failure; and
  - that benefits from the investment will be widespread, and thus appropriate for broad-based funding.



# Conclusion

---

- Consumers best served by a system that attracts the best resources
  - ❖ Reliability standards at ‘least long term cost’
- Biases in markets and regulation favor deployment of some resources
- Regulators can fix this.



# Thanks for your attention

---

- ❖ [rapsedano@aol.com](mailto:rapsedano@aol.com)
- ❖ <http://www.raponline.org>
- ❖ RAP Mission: *RAP is committed to fostering regulatory policies for the electric industry that encourage economic efficiency, protect environmental quality, assure system reliability, and allocate system benefits fairly to all customers.*