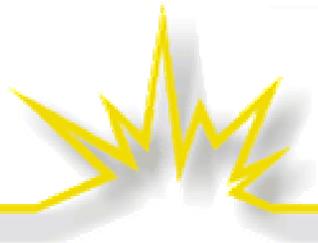


Meeting Energy Needs in Vermont

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The Regulatory Assistance Project

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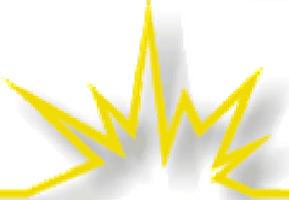


Introduction

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



Ideas

- Cost
- Risk and Resilience
- Fairness
- Alternatives
- Regulation that measures performance
- Question Everything



Vermont Situation

- Long term commitments nearing ends
- Base of deployed in-state resources (hydro, EE, biomass)
 - ❖ Very Low natural gas dependence
 - ❖ Very Low emissions footprint
- Load growth, esp. Summer, driving added resource needs
 - ❖ Still a low population density in many areas
- Transmission primarily 115 kV, some 345
 - ❖ Reliable transmission system
- Engaged public
- IRP in revival mode



Resource Planning Issues

➤ Static

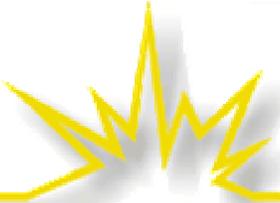
- ❖ What costs less now
- ❖ What can be changed in the shorter term?
- ❖ Rate cases

➤ Dynamic

- ❖ What might cost least in future given the foreseeable and unforeseeable changes
- ❖ What can be changed in the longer term?
- ❖ Planning: Position for the best chance of success (right balance of cost and risk management) in future years

➤ Drivers

- ❖ Commodity Price Exposure
- ❖ Environment Regulation
 - ◆ SO₂ (largely addressed by existing regulation and practices)
 - ◆ NO_x (somewhat addressed)
 - ◆ CO₂ (potentially big influence, not addressed)
- ❖ Markets
 - ◆ Regional
 - ◆ Commodities, limits, niches
 - ◆ Regulatory overlay/overlap
 - ◆ Customers (big loads, population response)
 - ◆ State-State competition



Utility/State Planning

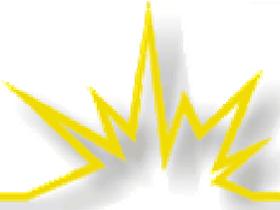
➤ State

- ❖ Articulate big themes (keep “the forest” in perspective)
- ❖ Structure of the planning and acquisition process

➤ Utility

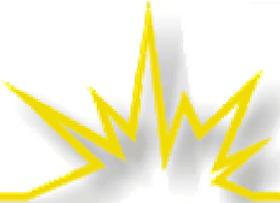
- ❖ Focus on comprehensive resource identification and analyses
- ❖ Follow lead of state on big themes
 - ◆ Consumer-owned may have locally-driven policy priorities
- ❖ Point out inconsistencies and conflicts in expectations

Both should be open to public engagement



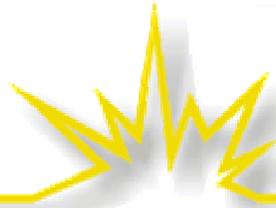
What can a state do?

- Wait for Washington
 - ❖ No worse off than anyone else
 - ❖ Carried along by events
- Agitate for regional cooperation and progress
 - ❖ Same as no. 1, but more clear about intent
 - ❖ Join up with initiatives of other states
 - ❖ Recognize local influence of policies elsewhere
- Lead
 - ❖ Risk disadvantage, but good ideas start somewhere



Resources

- Resource Alternatives – Exclude Nothing
 - ❖ Influenced by what’s available
 - ❖ Go outside utility sphere (codes & standards)
 - ❖ Be strategic (target resources to address growth, need)
 - ❖ Trade-offs of economic costs, non-economic costs, and risk exposure
- Optimize Regulation
 - ❖ Rate design, meters, customer options
 - ❖ Fix barriers to some resources (throughput incentive, interconnection, for example)
 - ❖ Optimize “regulatory certainty”
- Outlook for Technology, Surprises



Current path not sustainable

- Exponential growth is, itself, a debilitating force.
 - ❖ Imperative to chase more resources, and supporting investment leads to more cost and more risk
- Markets may make the best of it, but will not stop the decay and are limited in delivering on public interest priorities without clear direction
 - ❖ Siting is just getting more challenging
- Regulation can and should seek to slow or even stop growth in energy use as a priority

Figure 68. Annual electricity sales by sector, 1970-2025 (billion kilowatthours)

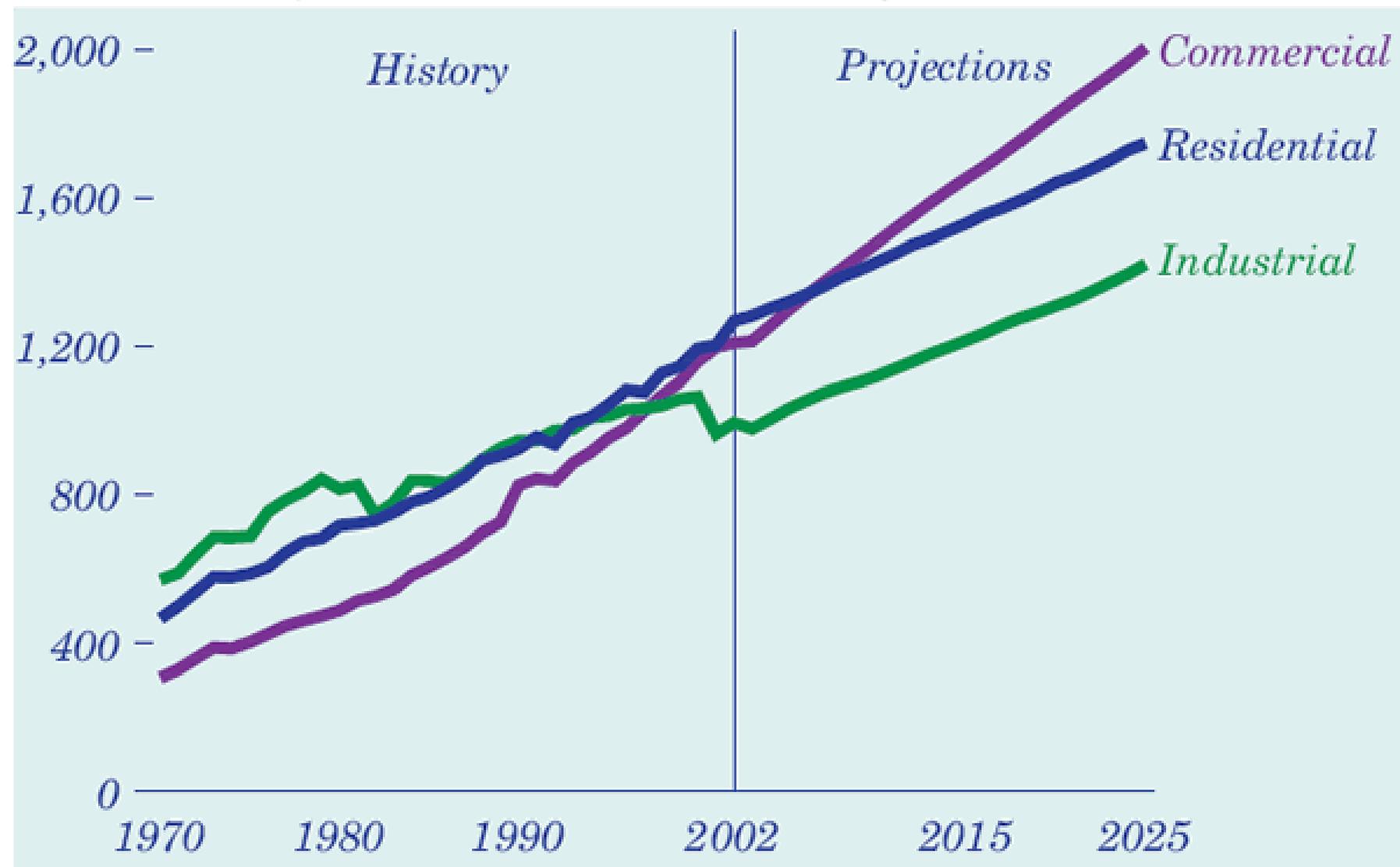


Figure 4. Electricity generation by fuel, 1970-2025 (billion kilowatthours)

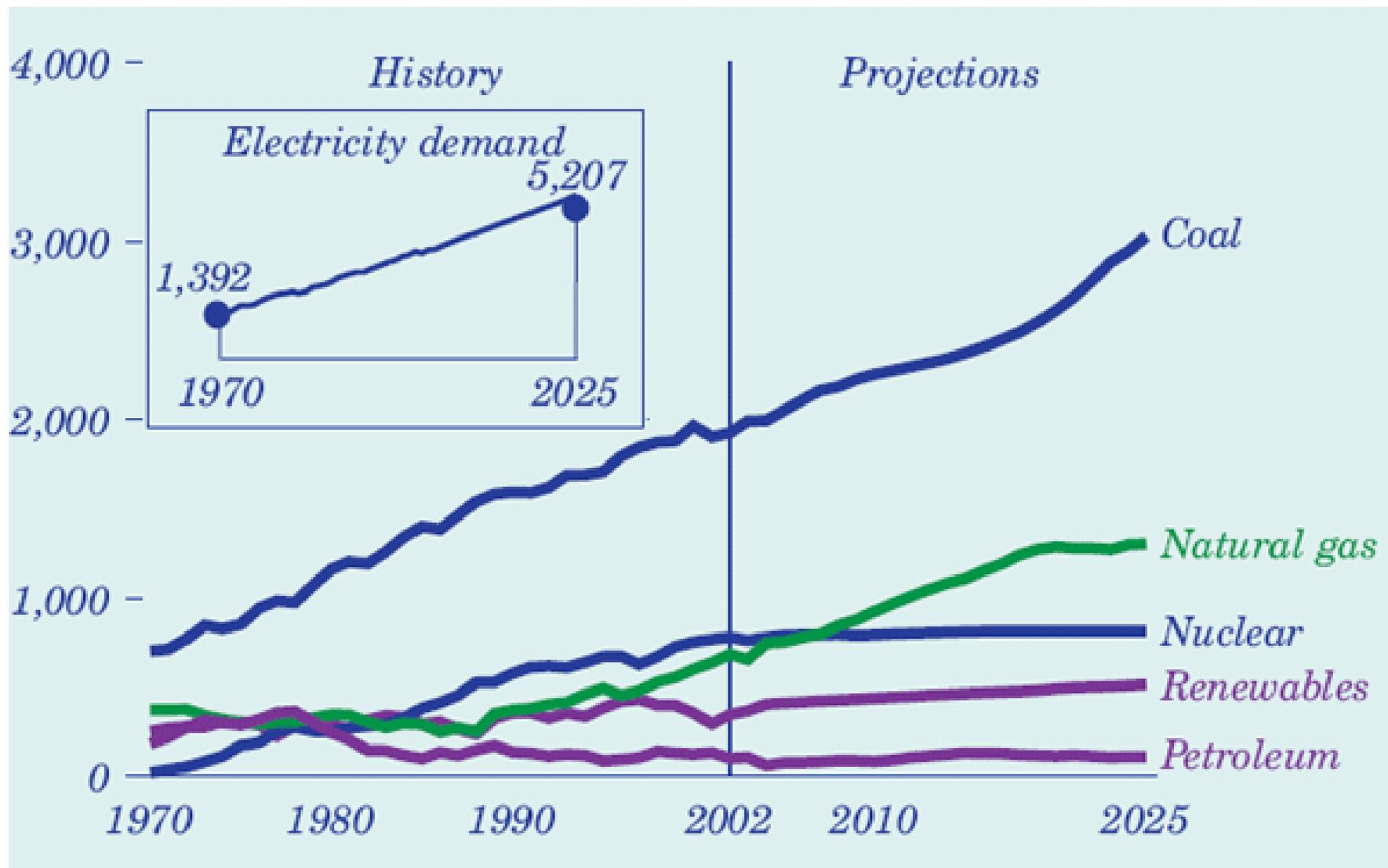
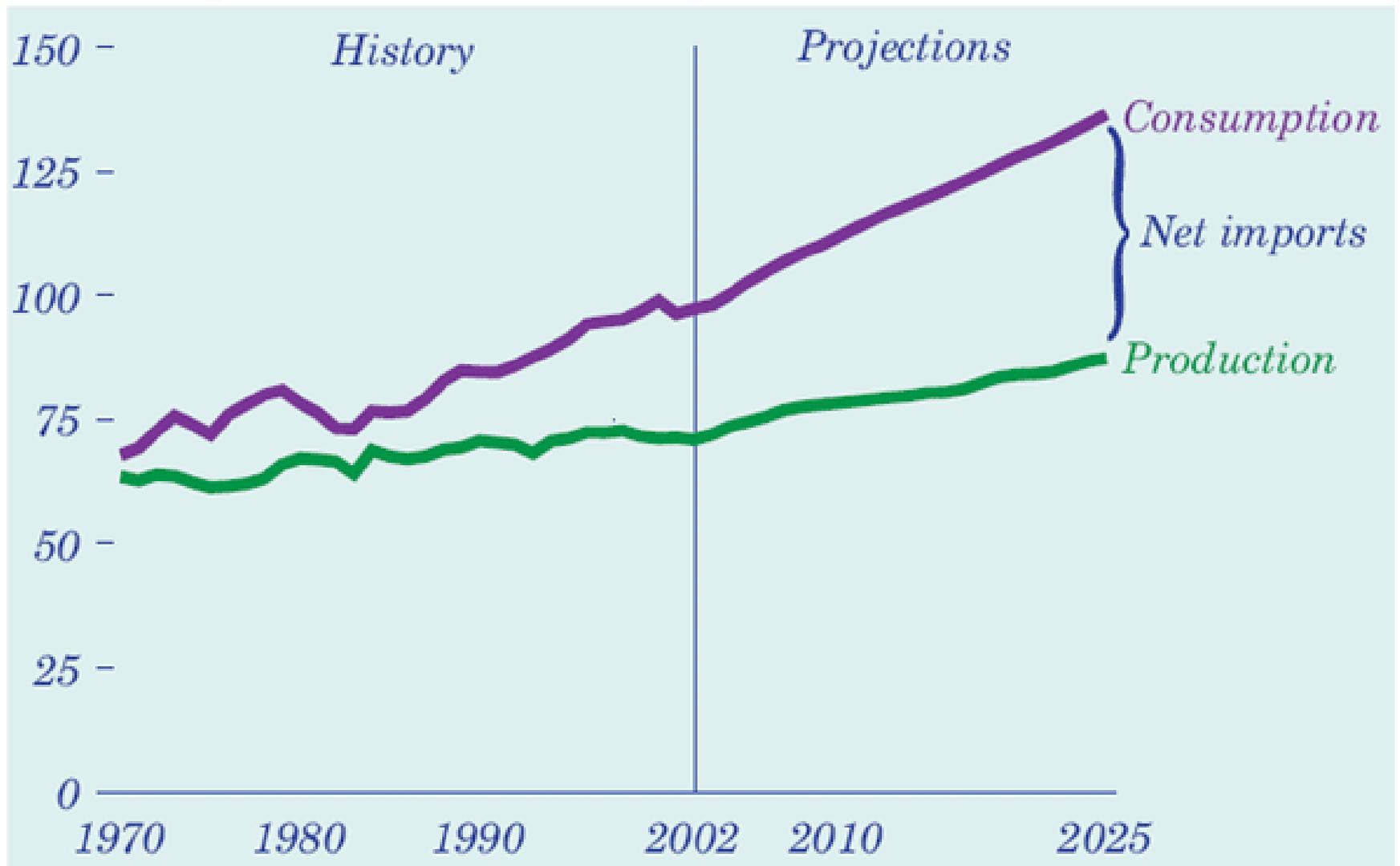
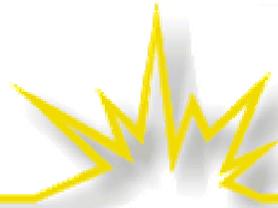


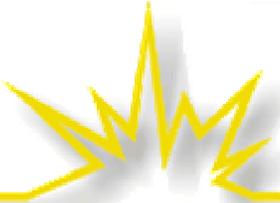
Figure 5. Total energy production and consumption, 1970-2025 (quadrillion Btu)





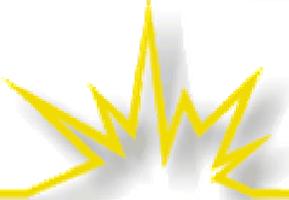
National Petroleum Council

- Beyond the Status Quo
 - ❖ Reactive Path: Public Policies Remain in Conflict, encouraging consumption, inhibiting supply ... resulting in higher prices and volatility
 - ❖ Balanced Path: Public Policies Aligned, all resources compete to ensure lowest cost
- What to do
 - ❖ Improve demand flexibility and efficiency
 - ❖ Increase diversity
 - ❖ Sustain and enhance infrastructure
 - ❖ Promote efficient markets



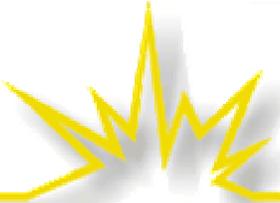
Present Opportunity

- Replacing current HQ and Entergy contracts represent a singular opportunity to think through the longer term results Vermont wants
- Careful though: the year of need in New England is roughly coincident
 - ❖ Current buyers' market may shift by 2010
- Responsible cooperation among Vermont's small utilities in big resource acquisition is good, recognizing individual company responsibility
- Risk management may be at odds with least dollar cost opportunities



Actions

- Resolving Priorities
- Considering All Options
- Communicating Clearly
- Resolving System Conflicts
- Following Through
- Watching for New (choices, challenges, etc.)
- Being Flexible
- Minimizing Ways to Go Wrong



Thanks for your attention

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❖ 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.*