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Energy Efficiency Regulation in Vermont

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Topics

- Review of Vermont Energy Efficiency Structure Past and Present
- Review of Alternative Regulation

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EARLY PROGRAMS AND CREATION OF EFFICIENCY VERMONT

Reminder - Vermont Regulatory Structure

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- Independent state agency modeled on a court
  - Not part of the State Elected Legislature
  - Not part of Governor's Administration
- Quasi-judicial
  - Supervises rates, quality of service, overall management of utilities

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DEPARTMENT OF PUBLIC SERVICE

- Public "Ratepayer" Advocate
- Planning, Consumer Affairs
- Part of Administration

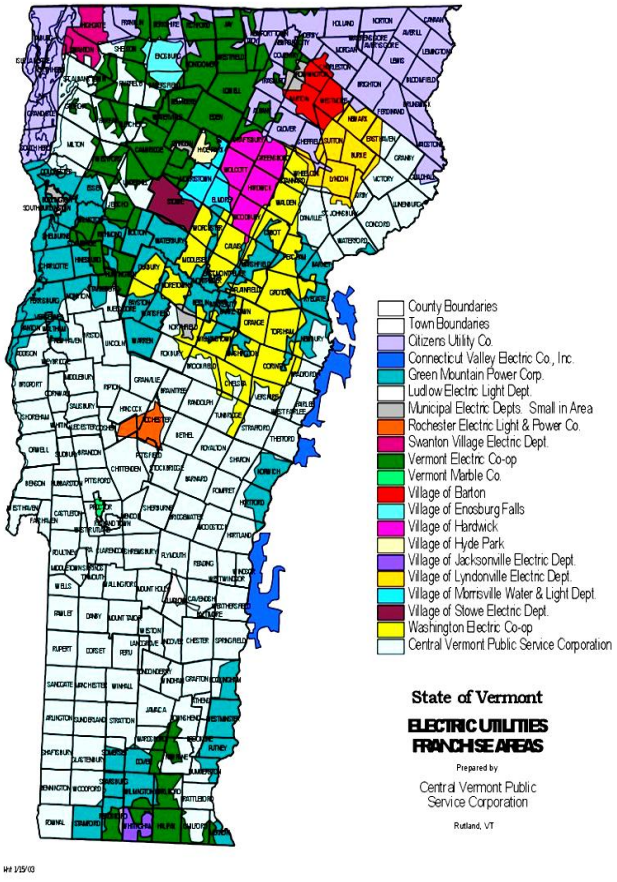
Early Public Service Board findings on Efficiency

- 1990, Board issued an Order finding:
  - EE programs could meet a significant portion of present and future demand
  - Distribution utilities needed to treat equivalently to supply options
  - Energy efficiency programs that existed could be improved
  - Comprehensive programs were needed

- Solution: Least-cost Integrated Resource Planning (IRP)

IRP essential step, but not as effective as it could be

- 22 distribution utilities (now 17) delivering different programs with their own personnel
  - Marketplace confusion
  - Uneven Performance
  - Declining Spending
  - Perceived Conflicts of Mission
  - Regulatory burden and cost



Creation of an "Energy Efficiency Utility"

- 2000, "Statewide" entity created as a result of:
  - Legislative action authorizing structure and "Energy Efficiency Charge"
  - a Settlement agreement between
    - Public Service Department,
    - Utilities,
    - Industry, and
    - Environmental stakeholders
  - Board Order approving Settlement

Major Change from Utility Delivered Programs to Contract

- Statewide delivery of programs
  - Fulfills electric utilities' obligations to implement system wide electric efficiency as part of least cost portfolio
  - Uniformity of program structure, incentives
  - Statewide costs used for cost-effectiveness screening
- Single Delivery Entity*
  - **Contractor** to Public Service Board – NOT franchised
  - Retained through open solicitation process
  - Burlington Electric Department – performance and funding allowed it to continue

Exemptions to Efficiency Programs

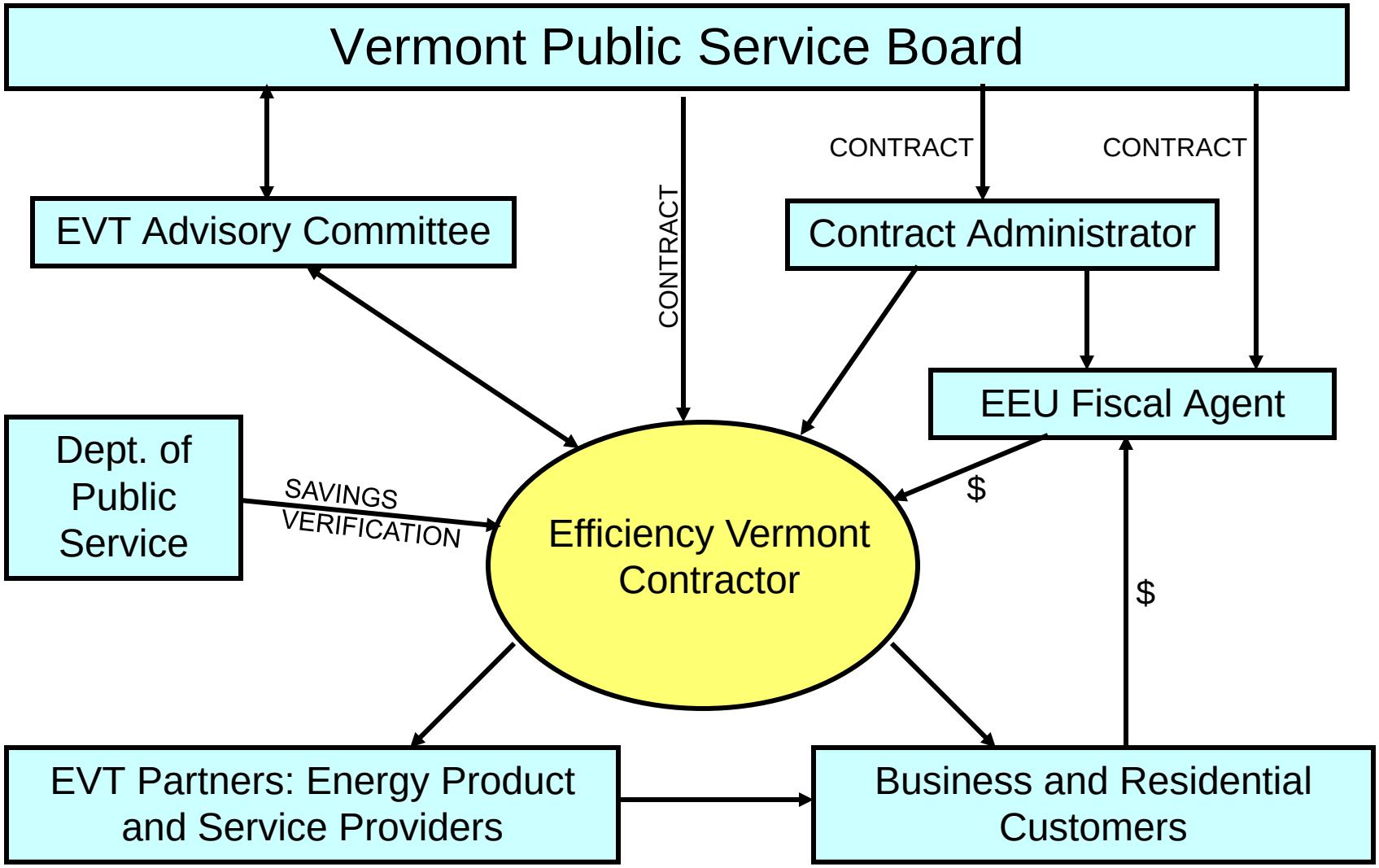
- Certain large customers who have shown sustained commitment to EE
- Certain customers who may qualify to “self-administer” (fund EE improvements on their own and be subject to reporting and other requirements)
- Continue to fund EE programs associated with system benefits

Funding

- The Energy Efficiency Utilities are funded by the "Energy Efficiency Charge" (EEC)
  - Volumetric wires charge that is stated separately on customer's bills
  - Statewide kW and kWh charge that differs by customer class depending on revenues generated from that class
  - Annual true up for under- or over-collections
  - Provides assurance that important services such as efficiency are delivered

What about Financing of efficiency?

- Systems benefit charge pays for EE in year one; benefits accrue over time
- Another option is to use bonds or other financing mechanism to pay for EE
- More costly – paying carrying costs
- Could be appropriate for short term burst in funding rather than a long-term source


Vermont Public Service Board
CONTRACT
CONTRACT
CONTRACT
EVT Advisory Committee
Contract Administrator
EEU Fiscal Agent
Dept. of Public Service
SAVINGS VERIFICATION
Efficiency Vermont Contractor
$
$
EVT Partners: Energy Product and Service Providers
Business and Residential Customers

Roles of Public Service Board Contractors

- Efficiency Vermont Performance Contract Model
  - Acquisition of maximum cost-effective statewide resources through design, propose, deliver EE services
  - Targeted demand reduction to avoid or defer T&D system investment
  - Leverage maximum “Total Resource Benefits”
  - Market Transformation
- Contract Administrator
  - Oversee contract with Efficiency Vermont; resolve disputes
- Fiscal Agent
  - Collect and disburse Energy Efficiency Charge Funds

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Public Service Board Role - Contract Structure

- Solicits and contracts with a contractor to deliver programs
- Establishes total EEU program budget and sets rates
- Approves Annual Plans
- Resolves Disputes

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Dept of Public Service Role – Contract Structure

- Propose new programs and changes to new programs
- Evaluate programs, verifies savings claims
- Estimates available energy efficiency potential

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Other Entities – Contract Structure

- Electric Utilities
  - Must Provide data and information to contractor (confidentiality agreements in place)
  - Continue to retain an obligation to deliver EE to address constraints
- Advisory Committee
  - Representatives of all stakeholder groups, appointed by Board
  - Provides advice to Efficiency Vermont
  - Purely advisory

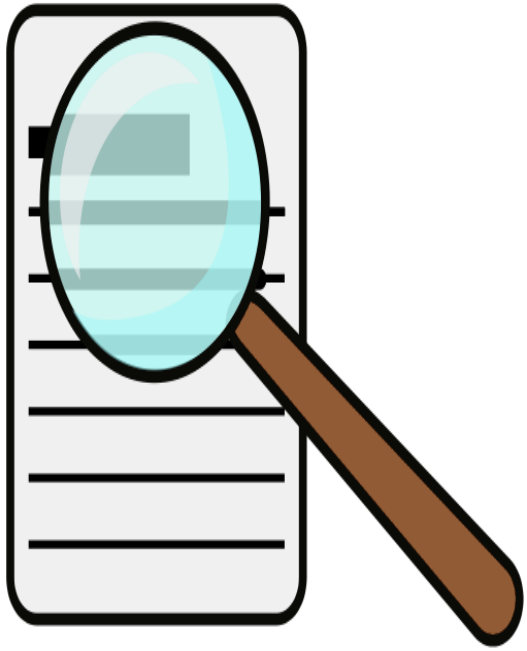
The Basic Mechanism -
A Contract to Supply Energy Efficiency Resources

- Model Similar to a power supply contract
- Kwh and peak kW are “purchased” from the Efficiency Vermont Contractor
- Efficiency Vermont was a competitively bid, 3 year performance contract that included:
  - Minimum performance requirements
  - Measureable performance indicators
  - A significant financial holdback to assure contractor performance

Contract for RESULTS

- Performance mechanism are an excellent tool to focus contractor attention on policy goals
  - Specific performance measures were negotiated between PSB and contractor at beginning of contract
  - Minimum performance standards to ensure certain markets are addressed
- Well-designed performance indicators are easier to administer than a detailed budget
- A portion of contractor's pay is tied to achieving the performance goals
  - Set percentage of total holdback is assigned to each performance standard; indicates relative importance of competing goals

Contract Savings Verification and Audit



- Critical to ensure confidence in results
- Data system and Program Administrator Quality Assurance systems are critical
- Established, documented processes for savings assumptions and calculations
  - Technical Advisory Group → Technical Reference Manual
- Monthly Invoice Review
- Independent Financial Audit

Contract Structure Challenges

- Incentive to contractor not structured for long-term planning
- Long term power supply commitments were riskier (Forward Capacity Market participation)
- Ability to enter into long term partnerships with market participants limited
- Financing/bonding capabilities limited
- Board Role as Contract Manager and Regulator was awkward
- Contractor became a *de facto* monopoly

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"Making a good thing better"

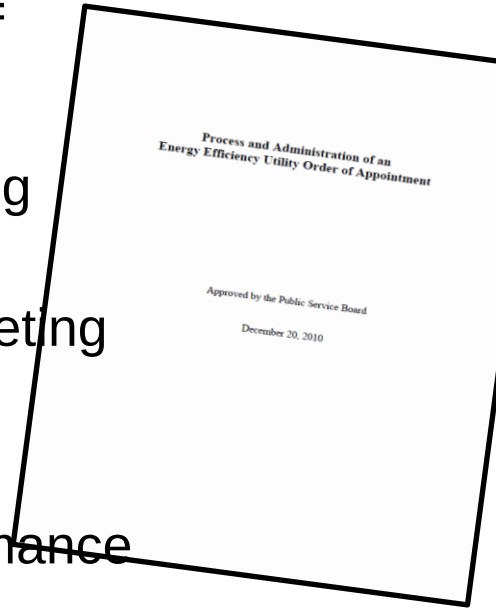
THE REGULATED EFFICIENCY UTILITY MODEL

"Order of Appointment" Structure

- Provides for 12 year "Appointment" with opportunity for renewal after 6 years
  - 6 year Comprehensive Performance Assessment
  - 3 year Performance Incentive Periods
- Avoids end of contract issues
- Enhances Procedural Transparency, Administrator Accountability
- Keeps regulators in judicial role/advocate as evaluator
- Allows for long-term budget and savings goals
- Removes Contract Administrator and formal Advisory Committee

Two Governing Documents (1)

- Process and Administration of an Order of Appointment
  - Legal Mechanism, EE Charge, General Funding Process
  - "Demand Resources Plan" – Process for Budgeting and Targets; EM&V
  - Rules for Re-Consideration of Appointment
  - Rules for Compensation and Payment; Performance Structure and "Non-Resource Acquisition"
  - Administrative Requirements – Data, Management Systems, Dispute Resolution Processes, Reporting


Process and Administration of an
Energy Efficiency Utility Order of Appointment

Approved by the Public Service Board

December 20, 2010

Two Governing Documents (2)

- Order of Appointment for each Utility
  - Specific Responsibilities as an EEU
  - Specific Compensation Details – Actual Targets and Monetary Rewards

Appointment – Additional Performance Mechanisms

- Failure of appointee to meet minimum thresholds on quantifiable performance indicators triggers reconsideration of appointment
- Scheduled regulatory reviews of the choice of appointee at six and twelve years
- Any party can ask regulators to open a proceeding at any time, for cause, to reconsider choice of the appointee

Principles Applicable to Both Structures

- Accountability and Oversight
- Administrator Effectiveness
- Compatibility with Public Policy Goals
- Effective and Efficient use of Ratepayer dollars

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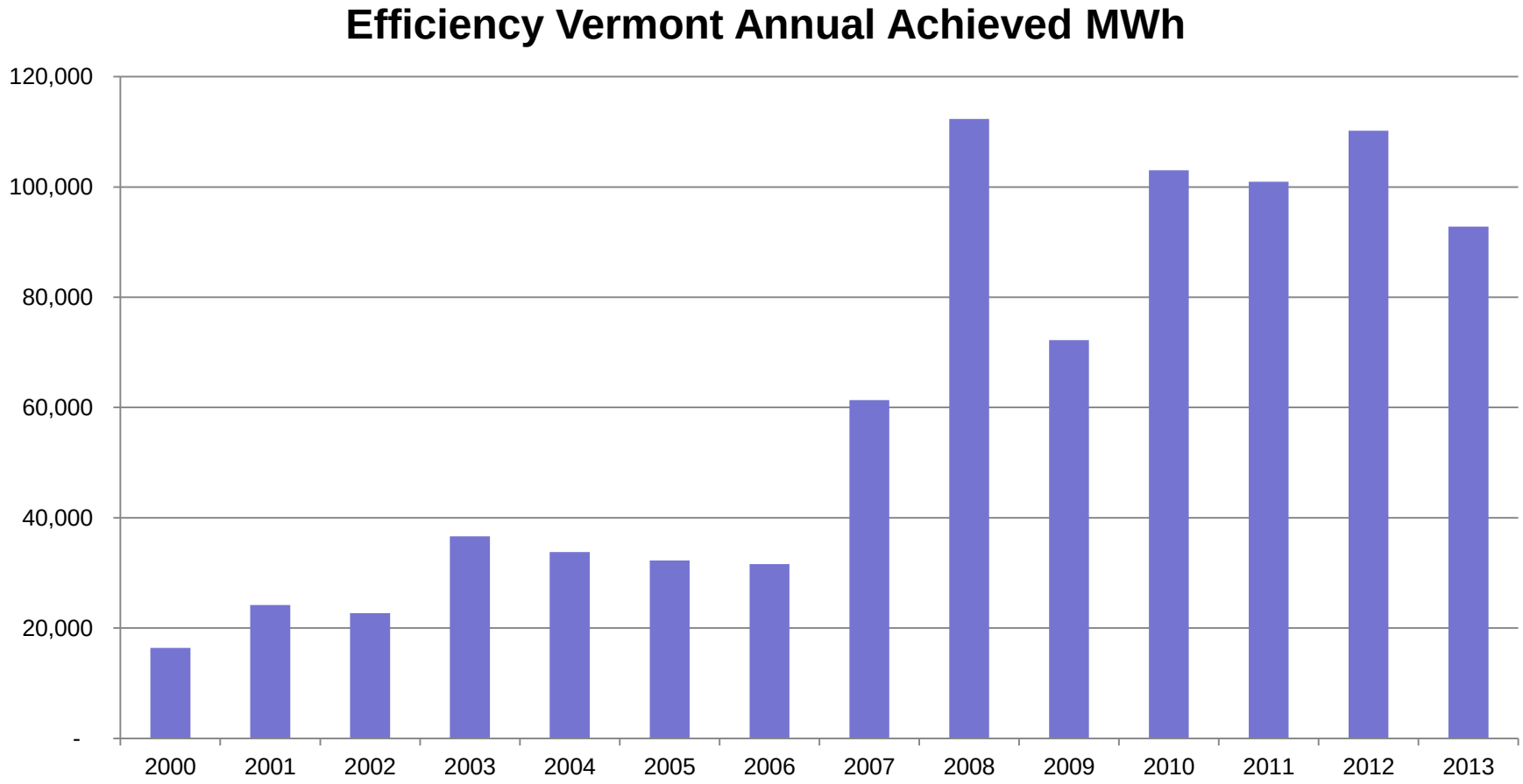
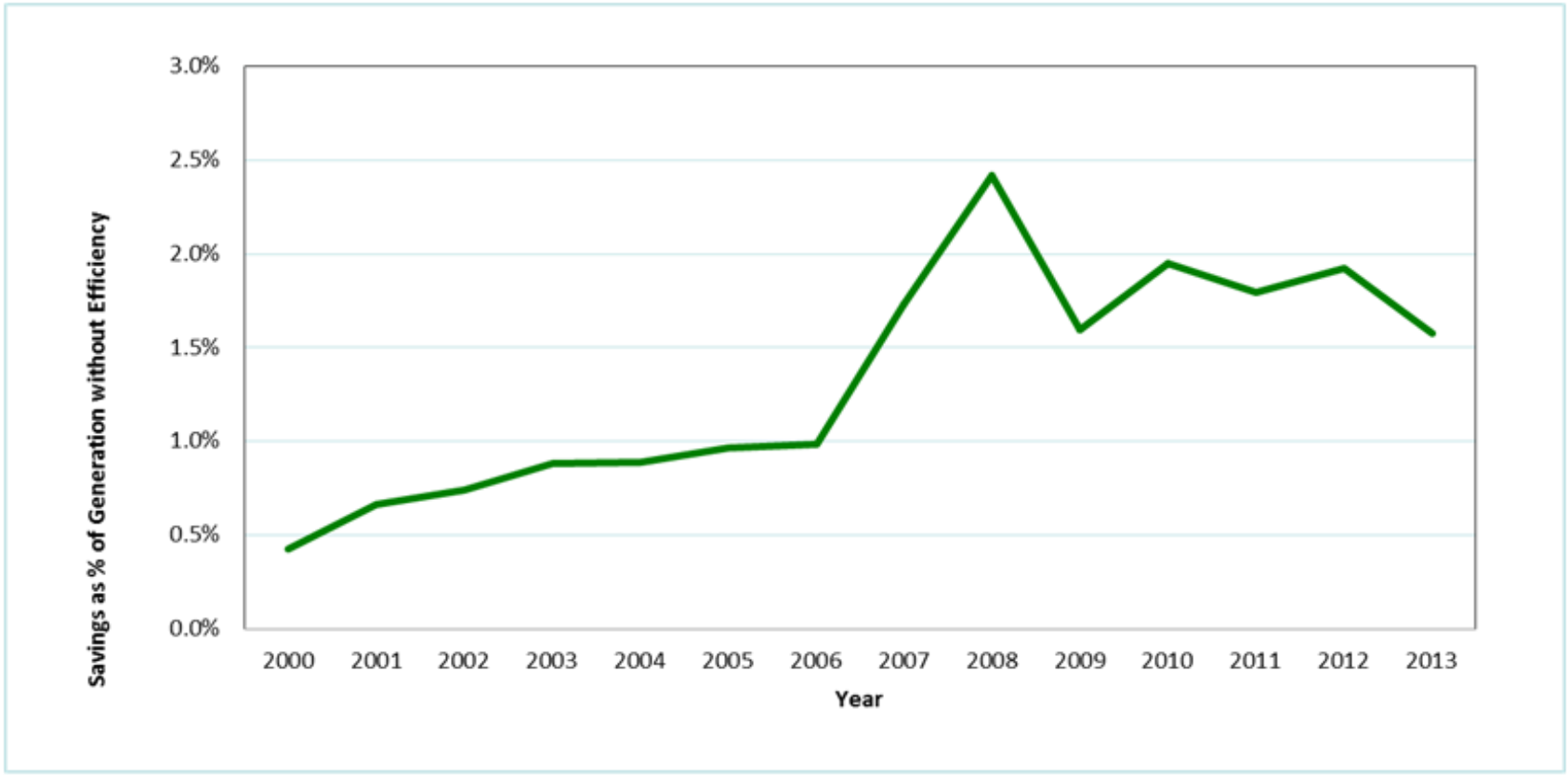
Contract and Order of Appointment Models have produced results



Efficiency Vermont Annual EE Savings as % of VT Demand



In the Meantime…

ALTERNATIVE REGULATION

What is “alternative regulation”?

- Attempt to better align regulatory structure to better meet legislative policy goals
- Authorized to consider other avenues besides traditional “cost of service” regulation

Why "Alternative Regulation"?

- Because of the successful Electric EE Structure in VT, Electric Alternative Regulation was not directly aimed at "decoupling"
- However, utility maintains the ability to influence individual customers
  - Direct contacts & referrals to program administrator
  - Aggressiveness in promoting Distributed Generation
  - Support of Building Codes
  - Provision of timely, useful information on energy efficiency

What does “Alt Reg” do?

- Reduces the link between profitability and sales
  - Removes disincentive to reduce sales
  - Does not expose Utility to “unacceptable” risk nor overcharge customers as sales volume decreases
- Offers ability to provide incentives for innovations and improved performance that advance energy policy
- More efficient regulatory process
- Implemented through 3 core mechanisms

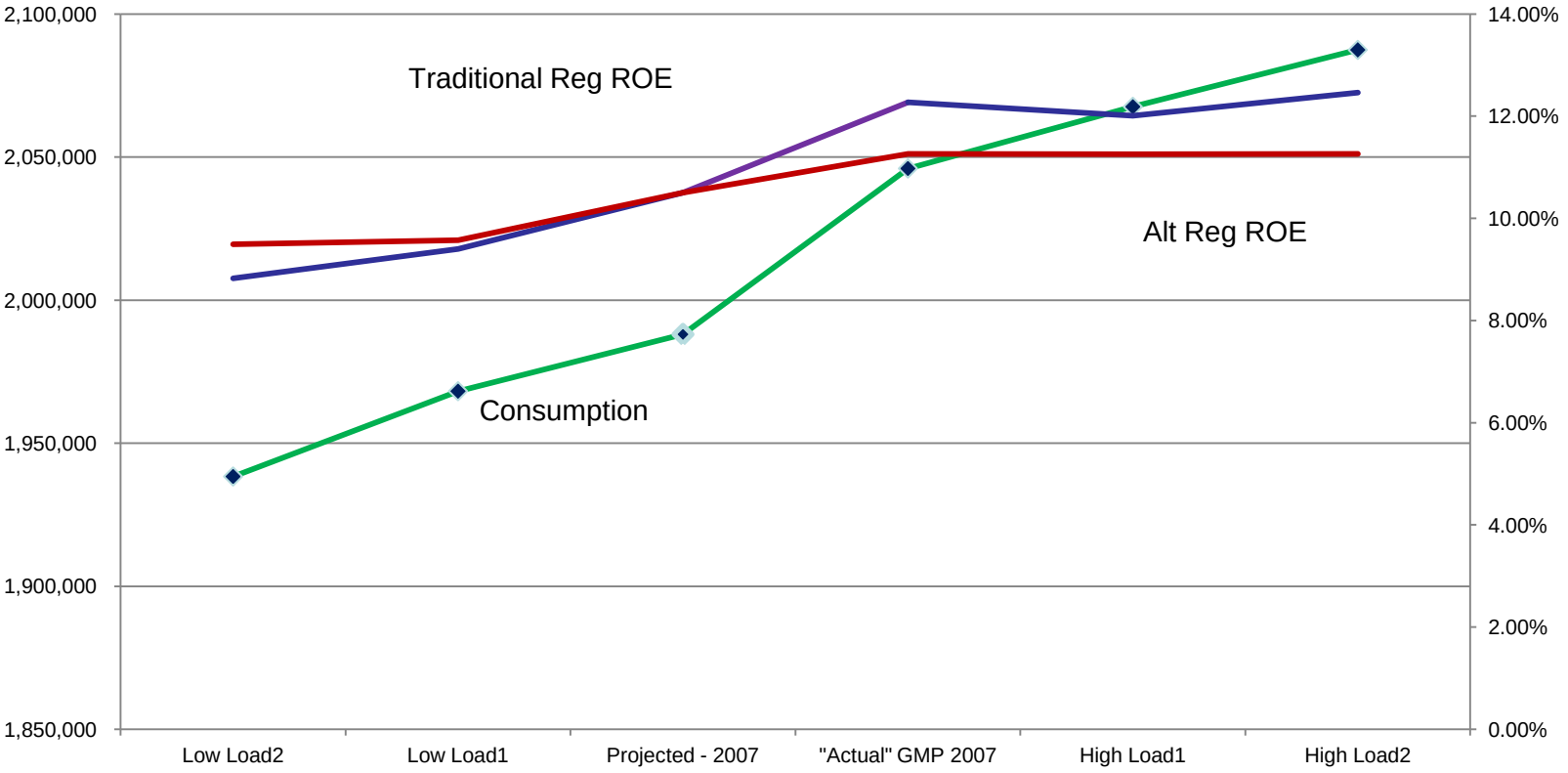
1) Annual Base Rate Adjustments

- Captures any increased sales – recalibrates billing determinants
- If increased sales = increased earnings, then this is mitigated by the Earnings Sharing Adjustor
  - Small potential for gaming the forecast?
- Loads are forecasted in base rate adjustments, impact of expected sales increase are captured and flowed to customer

2) Earnings Sharing Adjustment

- A band of authorized return on equity ("ROE") is set for a specific period
  - No rate adjustments if actual earnings within range equal to X basis points above/below the Board approved ROE
  - 50/50 sharing between X and X+Y basis points below the target return (asymmetrical to favor customers)
- It will return to (or collect from) customers earnings outside of certain limits
  - E.g. if sales growth increases revenues and the Company's earnings exceed the "Earnings Sharing Band", excess is returned to customers.
- Utility allowed to keep or share in returns that fall within certain bandwith

Earnings Sharing Example



3) Power Adjustor

- Power (energy and capacity) costs are separately identified on bill
  - Pricing transparency – pay actual cost of energy and capacity
- Limits possible changes in earnings due to sales variations
  - Adjusts base rates to reflect differences between actual power costs/revenues and those included in rates

Summary

- Vermont has a number of mechanisms that have been successful to deliver effective, efficient energy efficiency programs
- Third-party deliver of programs is one effective mechanism to deliver savings
- Program structure should ensure:
  - Accountability and Oversight
  - Administrator Effectiveness
  - Compatibility with Public Policy Goals
  - Effective and Efficient use of Ratepayer dollars

Questions