APPENDIX C

Vermont Renewable Power Supply Acquisition Authority Interim Report

October 2, 2003 Report

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Vermont Renewable Power Supply Acquisition Authority

Project Update

October 2, 2003

Topics for Discussion

- Bankruptcy Status
- Asset Profile
- Valuation Approach
- Market for Output
- Financing
- Risks and Benefits
- Next Steps
- Executive Session

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Bankruptcy Process and Status

- PG&E and six wholly-owned subsidiaries, including USGen New England, filed for Chapter 11 protection on July 8, 2003.
- USGen NE's petition is separate from the other subsidiaries.
- Some PG&E NEG entities have not filed.
- Based on discussions with PG&E's Chief Executive and Restructuring Officer (Joe Bondi, Alvarez & Marsal) and the Company's financial advisor (Lazard):
  - A restructuring plan, including both ongoing enterprise and M&A alternatives, is under consideration.
  - There is a good deal of uncertainty among creditors regarding their preferred path.
  - Lazard will conduct any asset sales; they hope to solicit interest in some/all assets in 30-45 days.
  - Interest in all and parts of USGen NE's assets is expected (based on unsolicited interest).
  - Disposition of Bear Swamp, Salem Harbor, Brayton Point and Manchester Street will be key issues.
  - Alvarez & Marsal and Lazard are aware of Vermont's interests in the hydros.

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USGen NE Assets

	Capacity	Fuel	Location
Brayton Point	1,599	Coal /Oil	Somerset, MA
Salem Harbor	745	Coal /Oil	Salem, MA
Bear Swamp	573	Hydro-Pumped Storage	Monroe Bridge, MA
CT and Deerfield River Systems	573	Hydro	VT, NH, MA
Manchester Street	495	Natural Gas	Providence, RI
Total	**3,985**		

Source: PG&E NEG Website.

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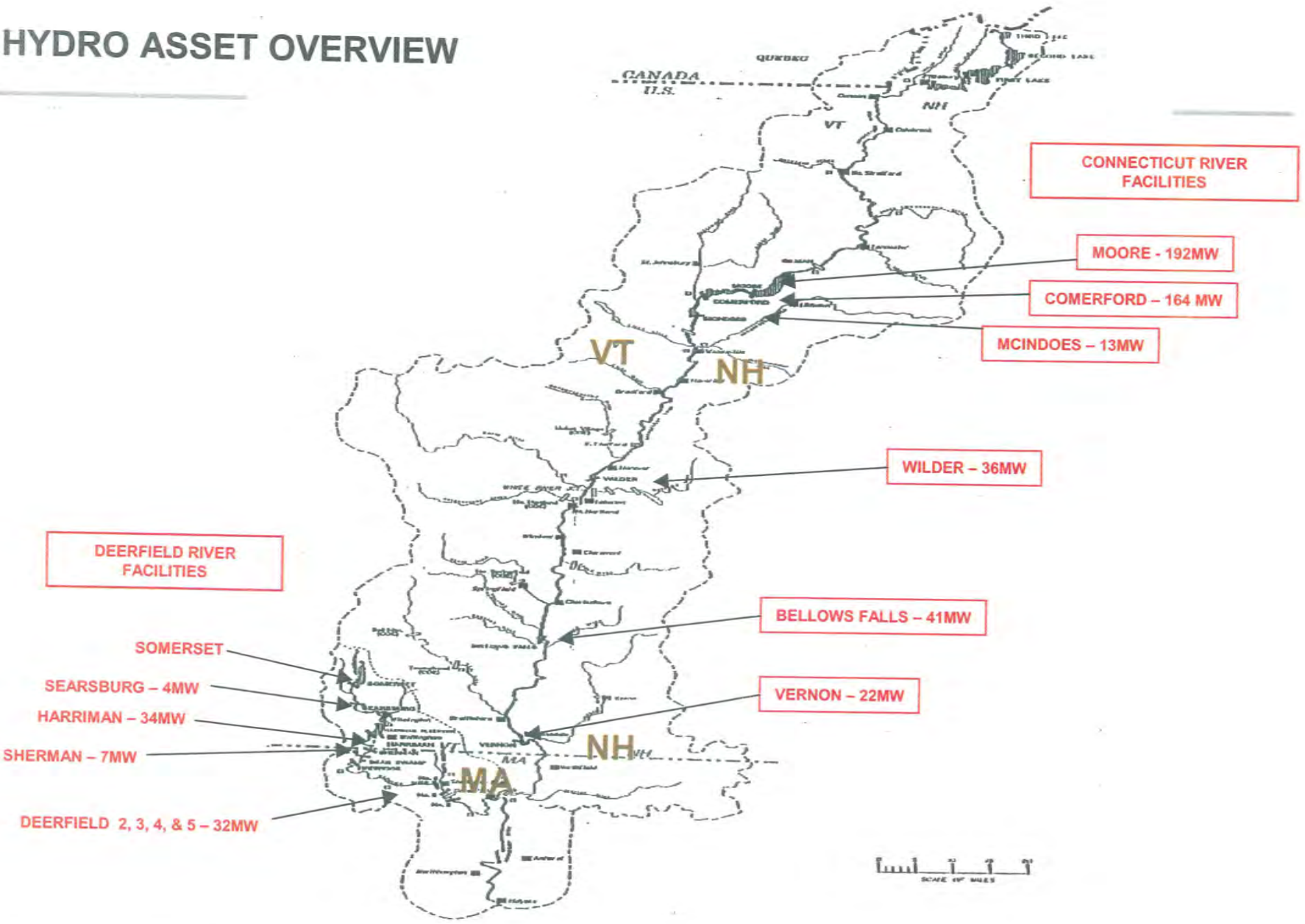
HYDRO ASSET OVERVIEW



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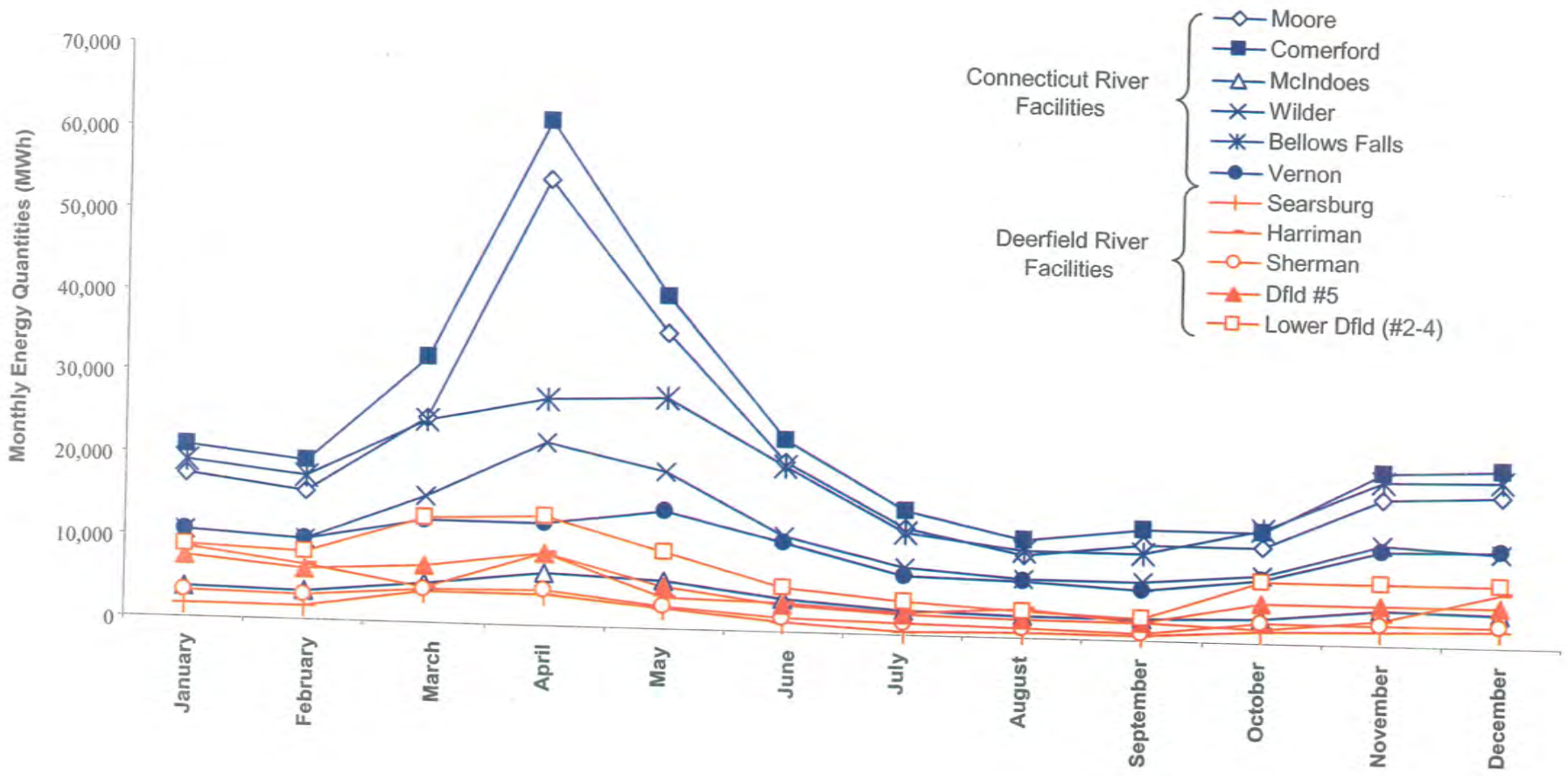
Hydroelectric Generation Profile



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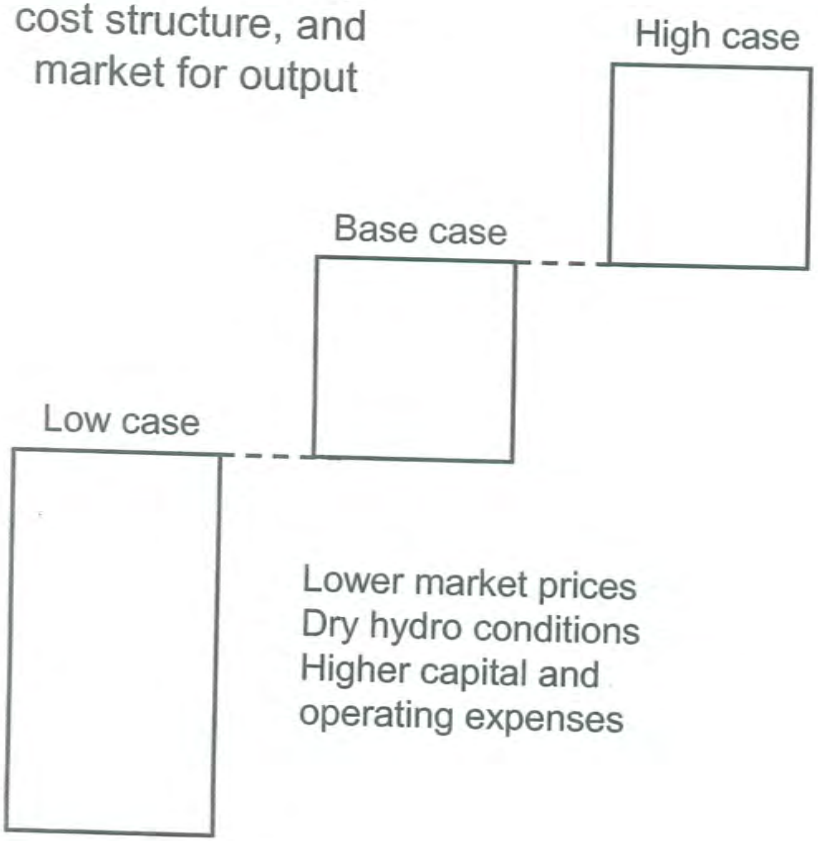
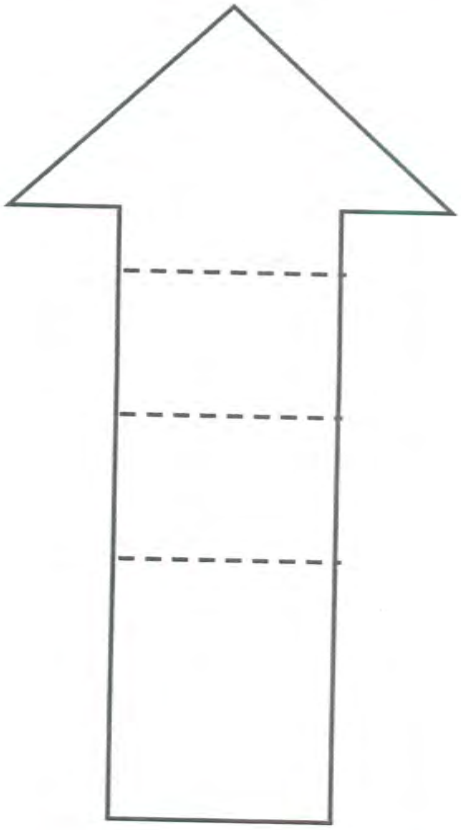
Valuation Approach

Valuation based on Vermont financing, cost structure, and market for output



Lower market prices
Dry hydro conditions
Higher capital and operating expenses

Valuation based on "typical" industry buyer



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Base Case Modeling Assumptions for Hydroelectric Facilities
(Modeling Period 2004-2013)

- Facility average water year monthly energy production projections:
  - 50+ years of CT and Drfld river flow gauge data used to define averages;
  - Values for CT river facilities, Harriman and Searsburg based on historical data recorded by facility owners between 1978-1999.
  - Drfld facilities below Harriman based on recently collected flow data adjusted to represent an average water year.
- Facility monthly minimum capacities based on operational constraints defined by re-licensing agreements (monthly minimum river flows).
- Oil and Gas Prices:
  - Starting prices based on ex post market data and FERC Form 423 filings;
  - Gas price forecast based on Nymex futures for first three years and EIA AEO 2003 thereafter. Oil price forecast based on AEO 2003.
- ISO New England inputs based on NEPOOL 2003 CELT Report:
  - 2004 unrestricted peak demand of 26,463 MW, 1.5% per annum growth;
  - 2004 energy consumption of 129,743GWh, 1.4% per annum growth;
  - Reserve margins range from 21-29% for the modeling period.

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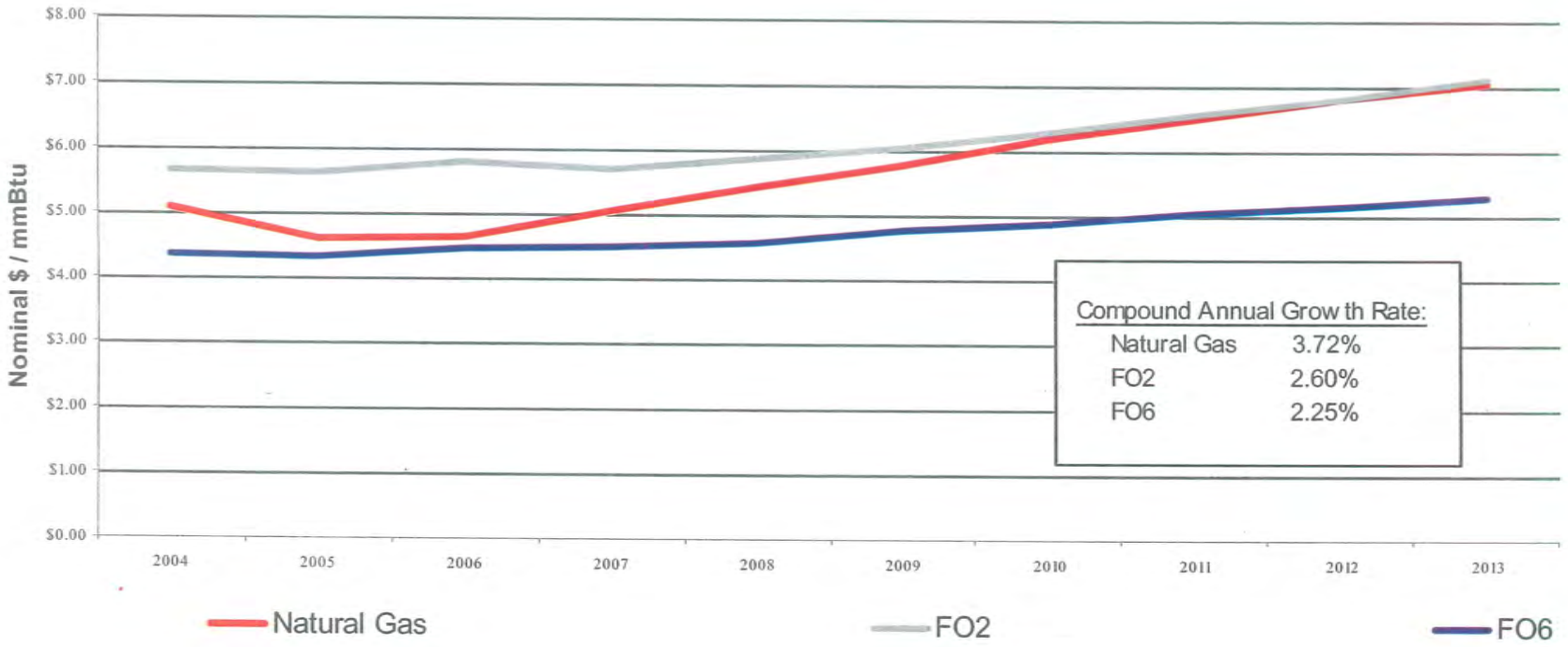
Fuel Price Assumptions



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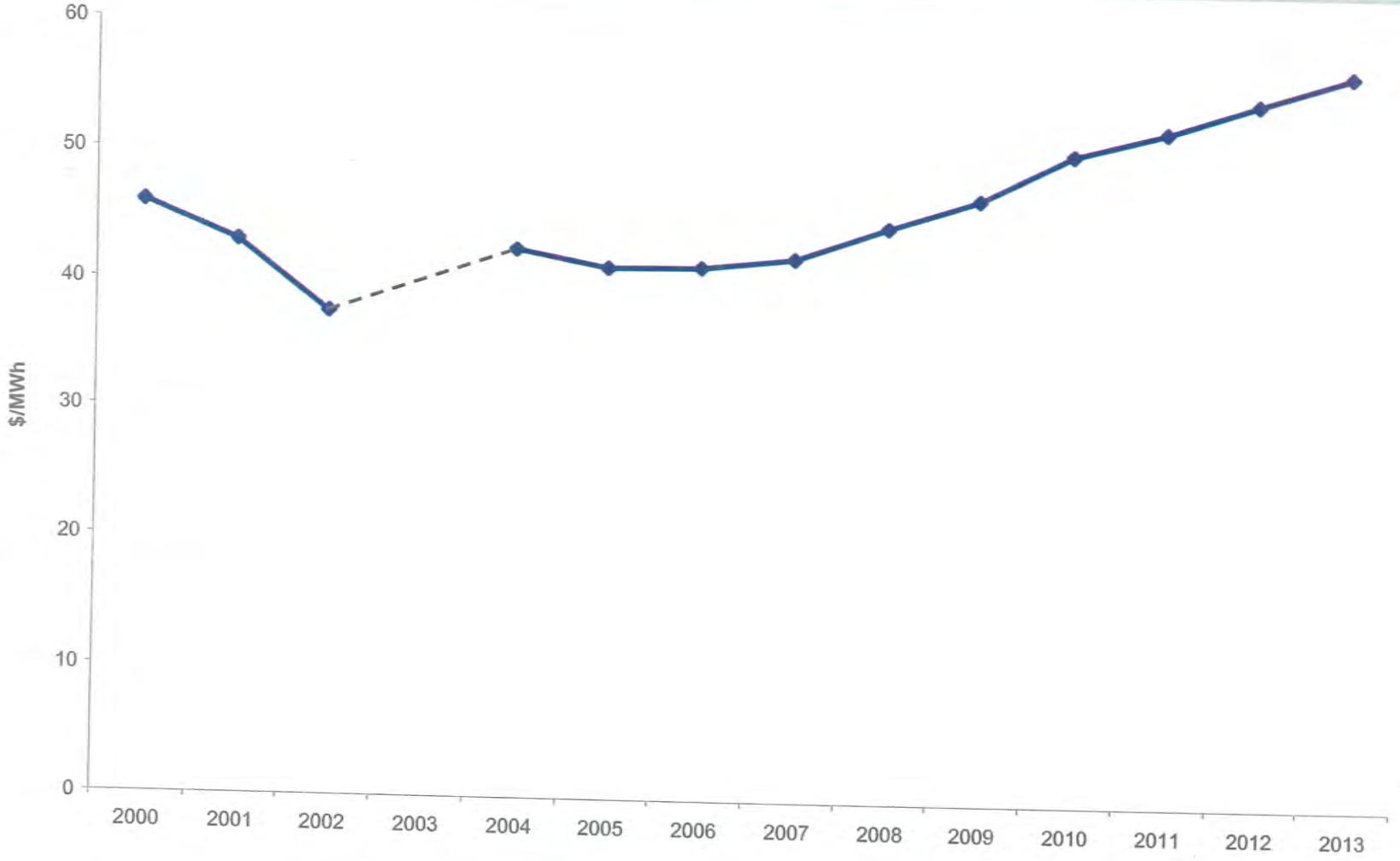
Average Annual ISO New England Energy



Note: Years 200, 2001, and 2002 represent actual ISO New England spot market energy prices.
Years 2004 – 2013 represent estimated MA Hub spot market energy prices obtained from modeling analysis.

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Expense Assumptions

- Operating and Maintenance Expenses
  - CT River: Per USGen, February 2002 study by PA Consulting
  - Deerfield River: 1996 FERC Form 1, inflated
  - 5% added for profit of O&M service vendor in Vermont-as-Buyer case
- A&G Expenses: $250,000 / year (50% of VPPSA administrative expenses), inflated
- Energy Management Expenses: $750,000 / year, inflated (midpoint of Calpine indicative bid)
- Property Taxes: Actual payments by USGenNE for most recent fiscal year, inflated, except in the case of Comerford, McIndoes, Vernon and Deerfield 5 which are estimated proportionally using taxes paid by Moore (for the CT River) and Deerfield 2-4 (for the Deerfield River)
- Depreciation: 20-year MACRS
- Income Tax Rate
  - Corporate Buyer: 35% Federal; applicable State rates
  - VT-as-Buyer: State rates only
- Capital Expenditures
  - CT River: Per USGen, February 2002 study by PA Consulting; FMF Enhancement Fund included per FERC relicensing settlement
  - Deerfield River: Assumed same $/kW as McIndoes; also includes estimated capital expenditures required by FERC relicensing settlement
- Economic life of the plants: Through 2053
- Inflation: 2.5%

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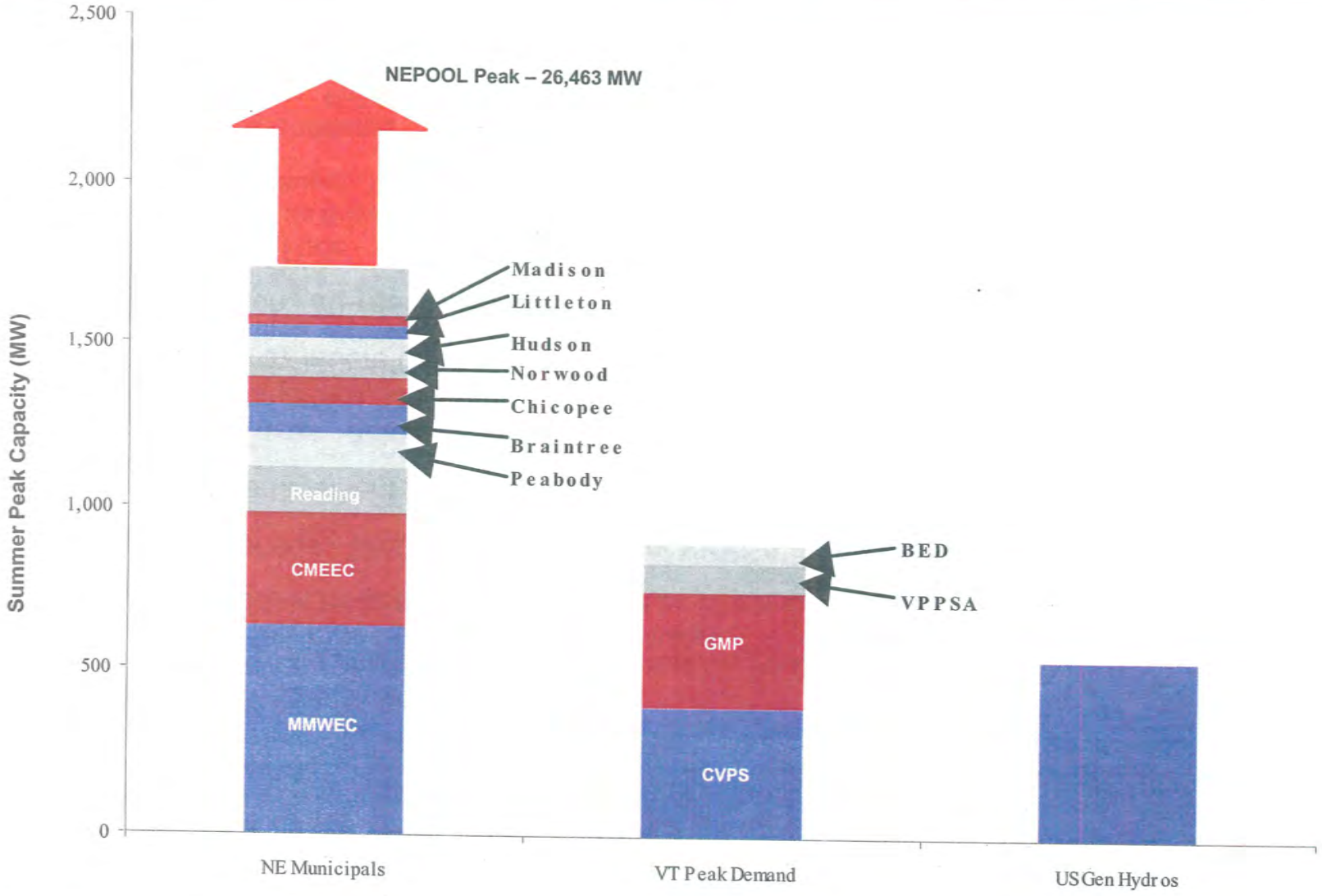
Market for the Output



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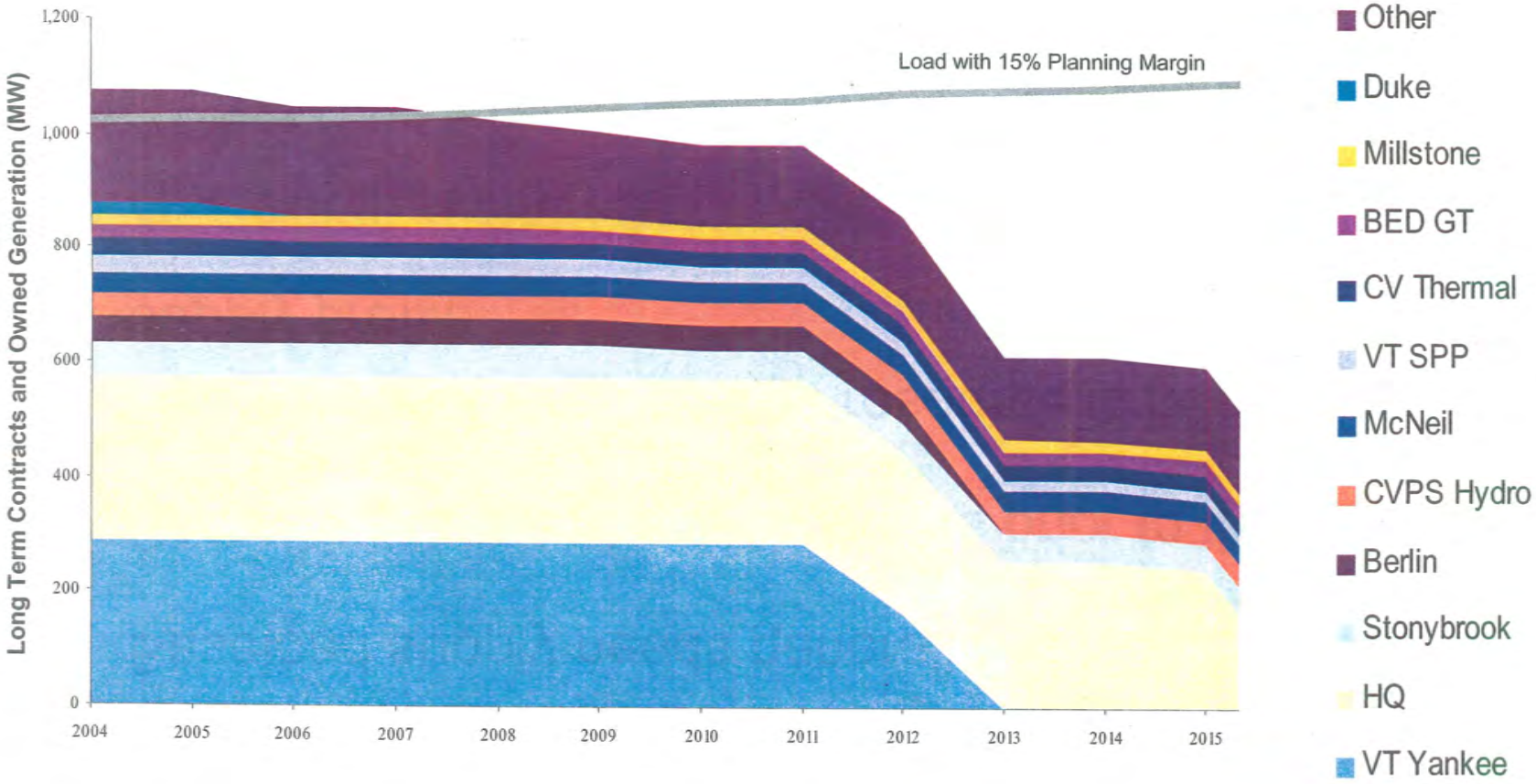
Vermont Supply and Demand Profile



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Vermont Utility Perspectives

- Baseload supply needs generally satisfied until 2010
- Some peaking and energy needs prior to then
- Hydro's considered a large resource in relation to VT supply profile
- Open to the potential for replacing HQ or VT Yankee
- Support economic development uses as long as customers not cherry-picked

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Options for Financial Structure

1. Tax Exempt Government Entity
2. Taxable Government Entity
3. Public / Private Partnership

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Options Considered for Financing

Type of Financing		Market for Output	Considerations
Tax Exempt Revenue Bond	1.	Municipals in VT, NE (?)	- Smaller market + No contract term limits
	2.	All output allocated to VT utilities	- "Tax" on retail use collected by utility - Too much power for needs
	3.	Spot, IOU and Municipal Contracts in VT, NE (?) (no volume cap used)	+ Larger market - Contracts with IOUs must be < 3 years - Difficult to finance
	4.	Spot, IOU and Municipal Contracts in VT, NE (volume cap used)	+ No market limitations - Takes volume cap from other VT uses for at least 2 years
Taxable Revenue Bond	5.	Spot, IOU and Municipal Contracts in VT, NE	+ No market limitations - Higher financing costs - Contracts required to finance
	6.	Private partner offtake; contracted back to VT utilities as needed	+ No market limitations - Higher financing costs

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Financing Costs – Vermont as Buyer

- **Financing Assumption:** 100% tax-exempt; new VT Authority purchases facilities and sells power in the day-ahead ISO-NE market until contracts of 3-year duration or shorter can be obtained.

	Taxable	Tax-Exempt	
Mostly Contracted	8.75%	6.50%	
Mostly Merchant	11.00%	7.25%	← **Gross Base Case**

$100 Moral Obligation – Less 0.25%

7.00% ← **Net Base Case**

Note: Bond insurance may be a source of incremental interest cost savings. The Base Case does not include bond insurance.

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Moral Obligation Bonds

- If a pre-established project reserve fund is depleted, the State agrees to approach the legislature for replenishment funds
- Potential for full notch of credit improvement, translating into an approximate 0.5% interest expense savings, or up to a $2.5 million annual savings on a $500 million purchase
- VT has over $500 million in moral obligation programs in place, primarily serving the Bond Bank
- No legal commitment to approve funding, but a disapproval would have negative credit implications for the State
- Should be used as an interest expense savings tool, not a transaction enabler
- Base Case assumes $100 million of moral obligation, creating a savings of 0.25%.

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Financing Costs – Taxable Buyer

- **12.3%** used in Base Case
- Assumptions
  - 50% Debt / Equity (Source: Standard & Poor's ratings criteria)
  - 18% Cost of Equity (Lexecon estimate)
  - 11% Cost of Debt (Lehman estimate)

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Primary Risks

- Market price risk
  - Risk of price decline in New England power market
  - Scenario analysis will quantify this risk
- Marketing and Operating Risk
  - Inability to fulfill contracted power supplies
  - Mechanical failure causes power loss and cost of repair
- FERC License Renewal Risk
  - 80% of MW are under license until 2037 and 2042
  - FERC license expires 2018 for the remaining 20% (lower CT)
  - License renewals may contain flow restriction and/or required capital additions
- State ownership risks
  - Reduction in State credit rating if MO or GO is used
  - Operational suboptimization

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Public Benefits

- Potential for financial benefit
  - Potential for cash generation to fund State programs
  - Economic Development potential to sell power at below-market rates or stable long-term rates
- Environmental / watershed control
- Price hedge for participating utilities and their customers – operating expenses and financing costs are relatively fixed
- Pride of ownership

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Considerations

- Not confident of contracts by time of transaction
  - Single resource in VT where load is satisfied
  - Cannot load-follow for a specific load
  - Utility POLR market requires a portfolio of resources
- Vermont's supply needs are met until 2008
  - Real needs are 2012 and beyond
  - Realistic potential to utilize 50% of the resources for VT load
- Greatest potential is realized if assets are blended into a larger supply portfolio
  - Private wholesaler with other resources in the region (Constellation, FPL, Calpine)
  - Combined ownership with other supply agencies (MMWEC, CMEEC, VPSSA)
- Financing will be a challenge
  - Lack of contracts out-of-the-box
  - State reluctant to place taxpayers at risk (GO or MO) or forego other programs (volume cap)
  - Best tax-exempt options have requirements we are not confident can be fulfilled
  - Cannot be financed at fair market value without equity or State credit support

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Considerations (continued)

- Assets are encumbered
  - Bankruptcy process does not ensure availability
  - If available, part of larger integrated asset portfolio
  - Auction will be competitive with an uncertain outcome
- Uncertain public benefit
  - Bulk of power exported for at least the next 10 years
  - Economic development contracts are a positive, but require time and flexibility to develop the opportunities
  - Watershed and environmental management are under existing authorities
- Potential economic benefits are substantial
  - At fair market value, significant benefits could be derived
  - But financing limitations constrain the ability to capture benefits
  - Potential for public benefit in a carefully structured transaction with a private partner
- Execution would be complex
  - Bankruptcy
  - Private partner involvement
  - Legal and bond issues
  - Public approval process

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Vermont Renewable Power Supply Acquisition Authority Interim Report

November 13 2003 Report

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Vermont Renewable Power Supply Acquisition Authority

Study Results and Conclusions

November 13, 2003

Topics for Discussion

- Background and State Objectives
- Focus of the Study
- Bankruptcy Status
- Asset Profile
- Base Case Assumptions
- Financial Structure
- Executive Session
  - Discussions with Municipals, IOUs and Potential Partners
  - Valuation
  - Probabilities of Success
- Risks and Benefits
- Conclusions
- Alternative Paths Forward

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Background and State Objectives

- The Vermont Renewable Power Supply Authority was created by the Vermont legislature to:
  - Prepare due diligence and feasibility studies regarding the purchase of hydroelectric dams and related assets on the Connecticut and Deerfield rivers
  - Complete the studies and present its recommendations to Finance, Commerce and Natural Resources and Energy committees by December 1, 2003
  - Enter into negotiations for a potential purchase with the consent of the Governor and submitted to the General Assembly for consideration
- Among the potential advantages of such an acquisition considered were:
  - Securing a stable source of low cost power for the Citizens of Vermont and businesses in or looking to locate in Vermont
  - Supporting a major local source of renewable energy
  - Capitalize on tax advantages, including tax-exempt revenue bonds and a federal-income-tax-free Authority to own the assets

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Focus of the Study

- USGen bankruptcy research and monitoring
- Fair Market Valuation
  - Hydrological and generation characteristics
  - Research revenue, expenses, and comparable transactions from public sources
  - Cost of capital estimation by Lexecon and through discussions with investment bankers
- Research power needs
  - In State (municipal and private)
  - Out of State (municipal and cooperatives)
- Obtain indicative interest from potential partners
  - Joint Ownership
  - Power contracts
  - Operating and Marketing Contract
- Financial feasibility of purchase by State entity
  - Tax exempt financing structures and State capability for credit backstop
  - Partnership structures, including taxable scenarios
  - Operating scenario analysis, downside risk and upside potential
- Ongoing evaluation of ability to satisfy State objectives
- Ongoing feedback to VRPSAA

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Bankruptcy Process and Status

- PG&E and six wholly-owned subsidiaries, including USGen New England, filed for Chapter 11 protection on July 8, 2003.
- USGen New England:
  - The entity is income positive but variable, generating $8.0 million in net income in August and $277 thousand in September
  - 90% of revenue is contract based, principally standard offer supply to National Grid affiliates, expiring in 2004
  - current book value of property, plant and equipment is $1.5 billion
- The bankruptcy restructuring plan remains in the development stage
  - Creditors have asked for both an ongoing entity and a liquidation plan, but no decisions will not likely be reached until 1st Quarter 2004.
  - We understand that interest in all of USGen NE's assets has been expressed by at least two acquirors (based on unsolicited interest).
  - Vermont's interest in the hydros has been registered with Alvarez & Marsal and Lazard Freres, who will conduct any asset sales.

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USGen NE Assets

Facility	Capacity (MW)	Fuel	Location
Brayton Point	1,599	Coal /Oil	Somerset, MA
Salem Harbor	745	Coal /Oil	Salem, MA
Bear Swamp	573	Hydro-Pumped Storage	Monroe Bridge, MA
CT and Deerfield River Systems	573	Hydro	VT, NH, MA
Manchester Street	495	Natural Gas	Providence, RI
Total	3,985		

Source: PG&E NEG Website.

Potential Paths for the Hydros

1. USGen-NE emerges from bankruptcy as an ongoing entity, no divestiture
2. Sale of equity in USGen-NE (requires a partner for Vermont)
3. Sale of all assets bundled together (requires a partner for Vermont)
4. Sale of individual assets or asset groups (cleanest option for Vermont)

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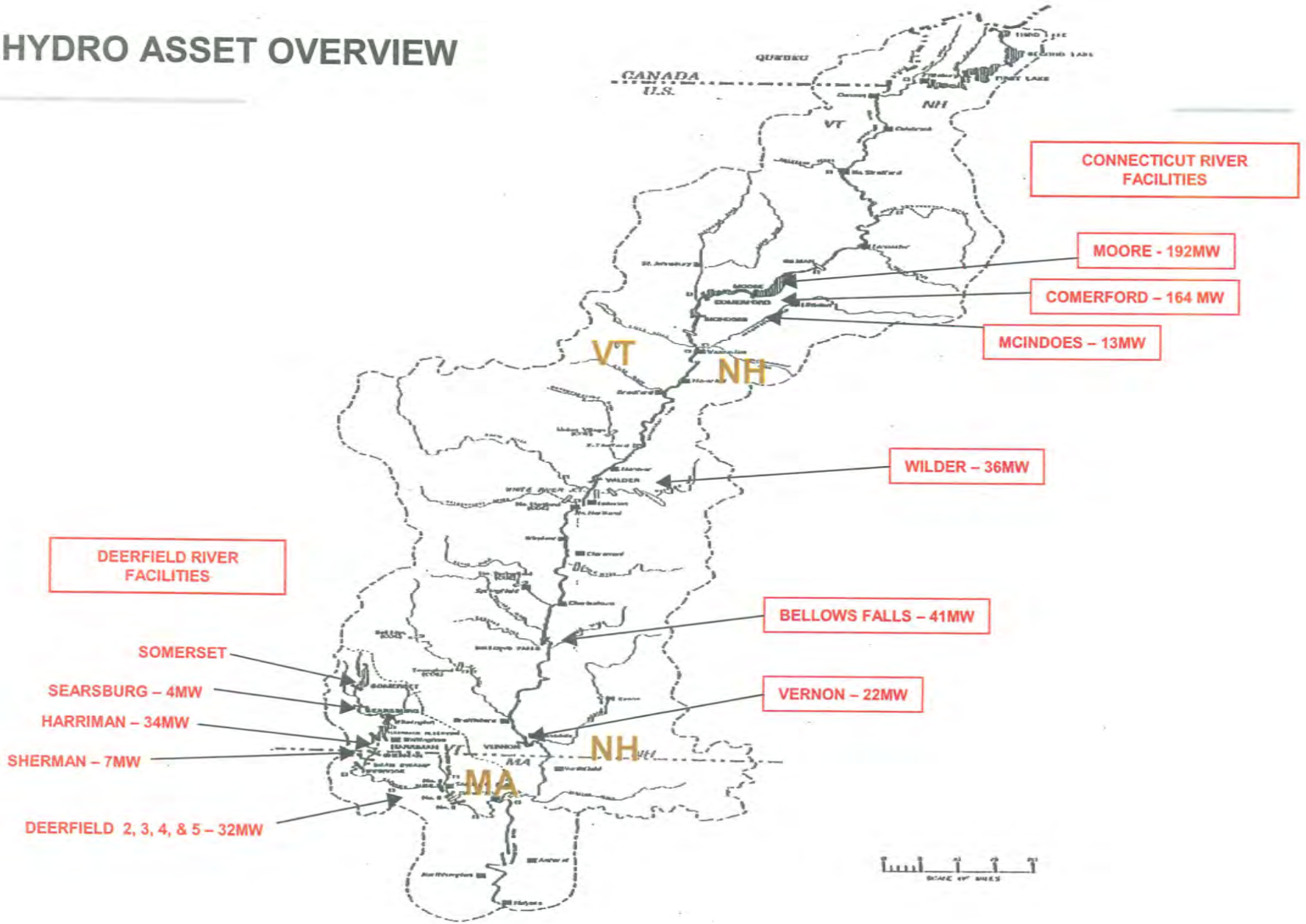
HYDRO ASSET OVERVIEW



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Operating Assumptions for Base Case

Unchanged from October 2 presentation, except:

- Slightly lower Base Case natural gas price forecast
- Lower ISO-NE power prices as a result
- Expense items are substantially unchanged
  - Property Tax study completed
  - Capital Expenditures for lower CT River FERC relicensing updated

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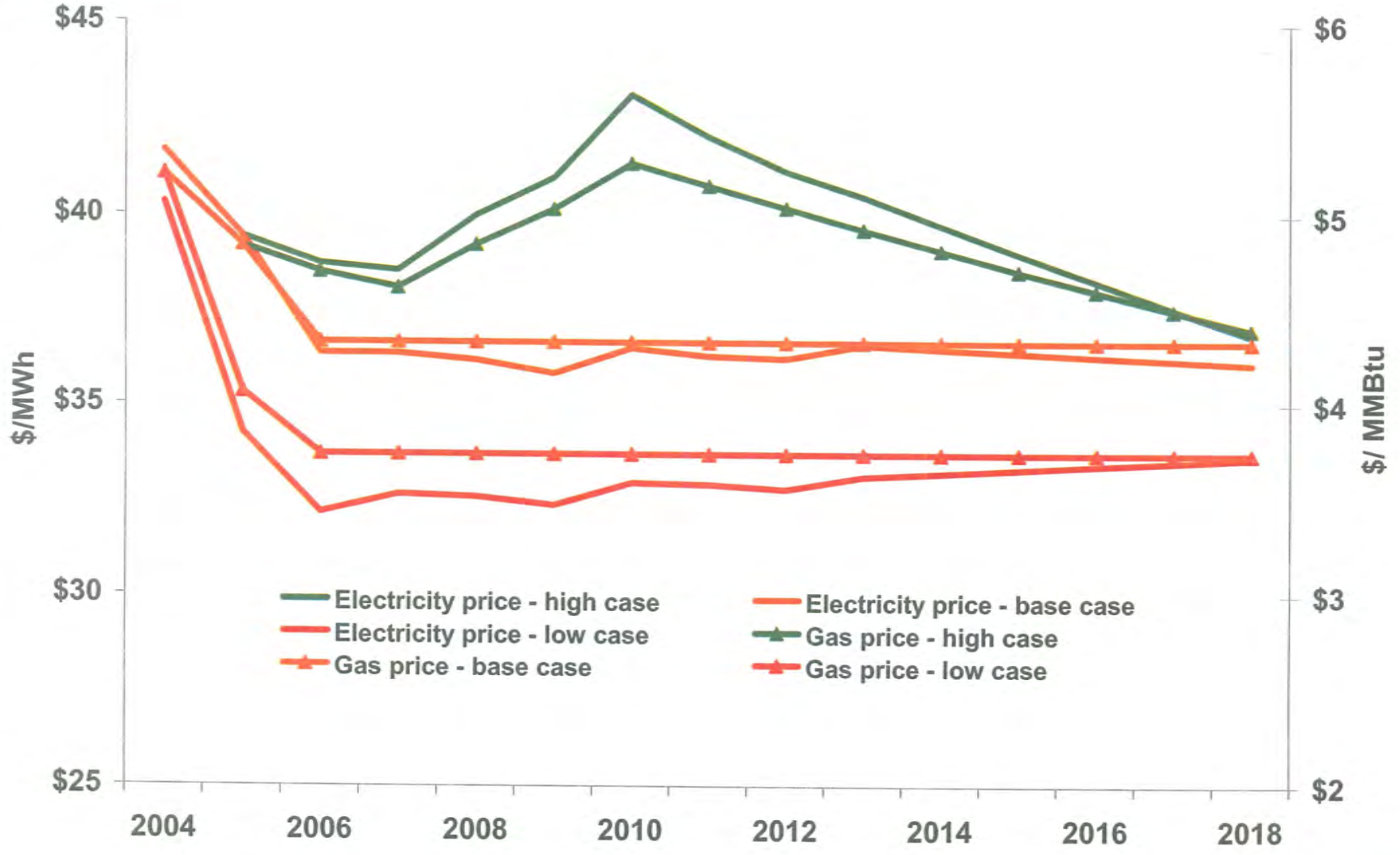
Natural Gas / Electric Price Assumptions
(2003 Dollars)



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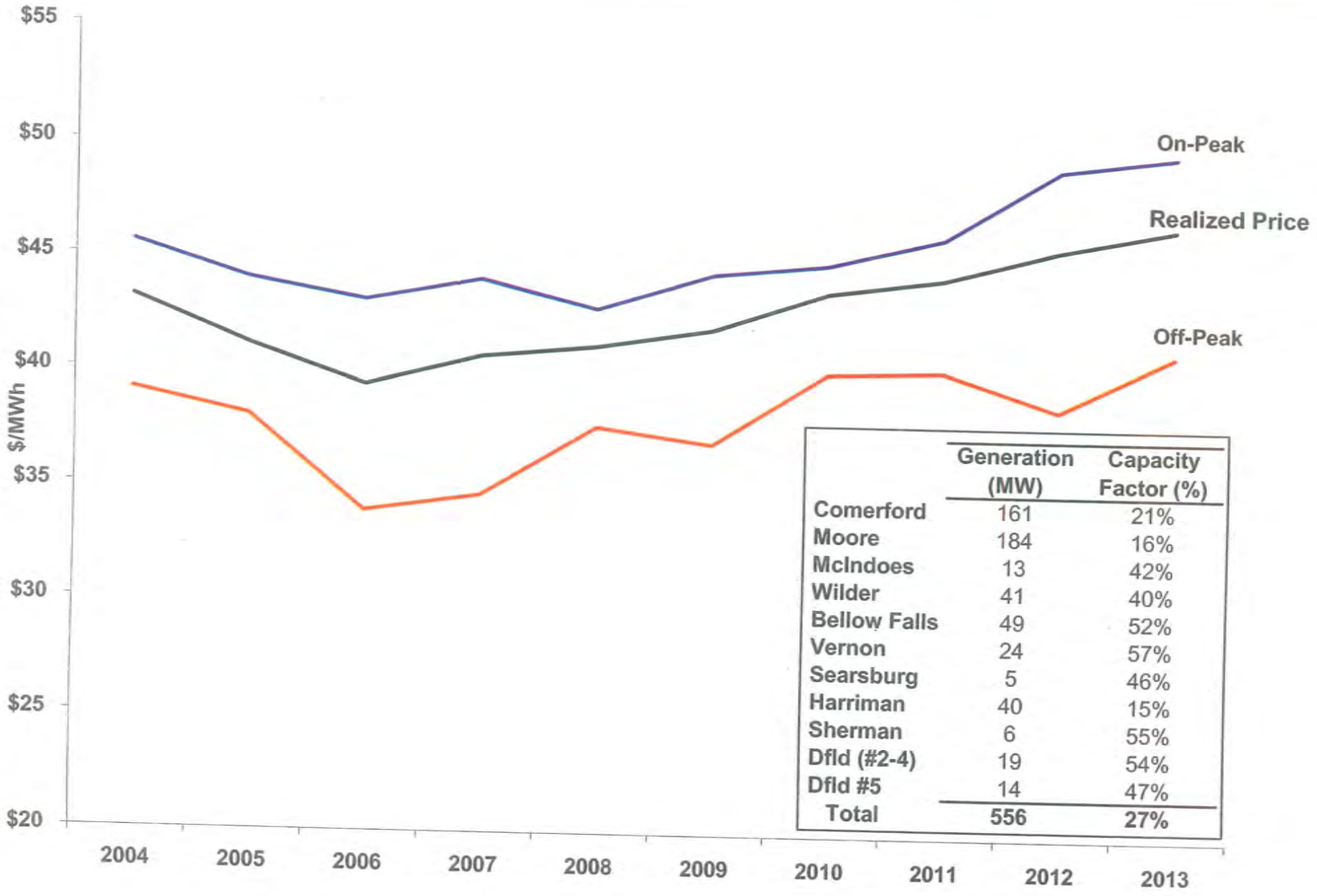
Forecast Energy Price Received by the Project



	Generation (MW)	Capacity Factor (%)
Comerford	161	21%
Moore	184	16%
McIndoes	13	42%
Wilder	41	40%
Bellow Falls	49	52%
Vernon	24	57%
Searsburg	5	46%
Harriman	40	15%
Sherman	6	55%
Dfld (#2-4)	19	54%
Dfld #5	14	47%
Total	556	27%

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River Flow Assumptions

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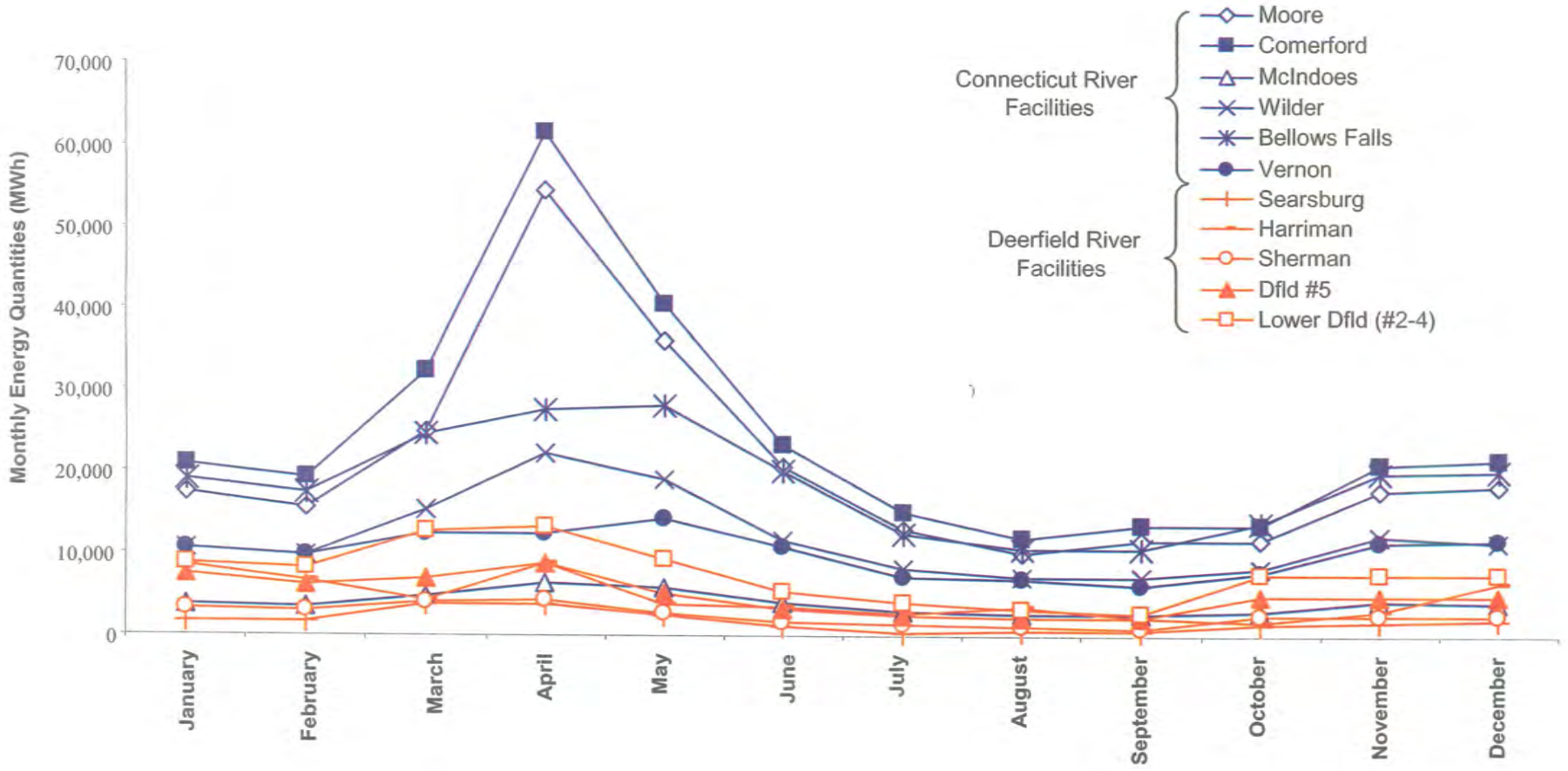
Hydroelectric Generation Profile - Monthly



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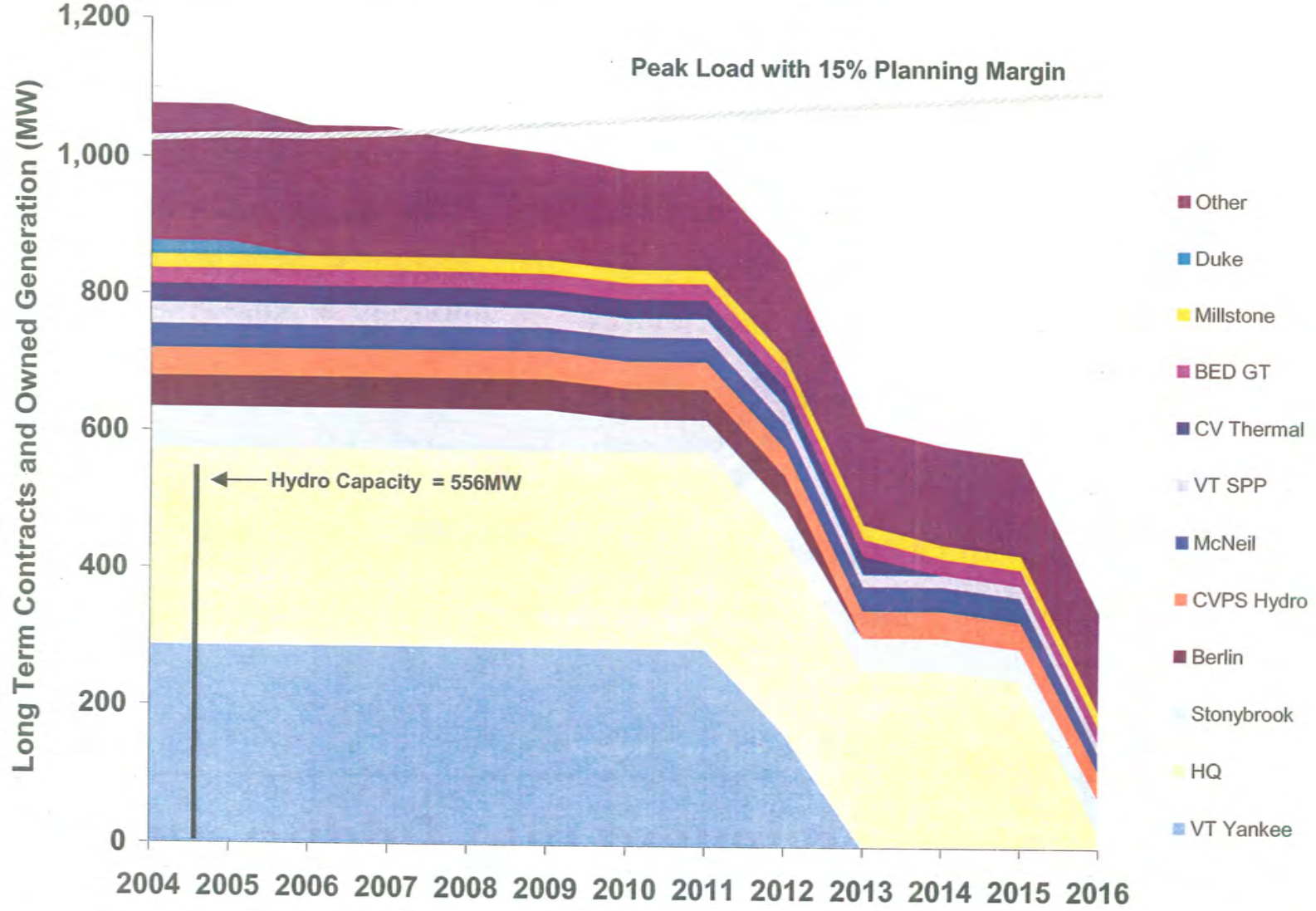
Vermont Supply and Demand Profile - Capacity



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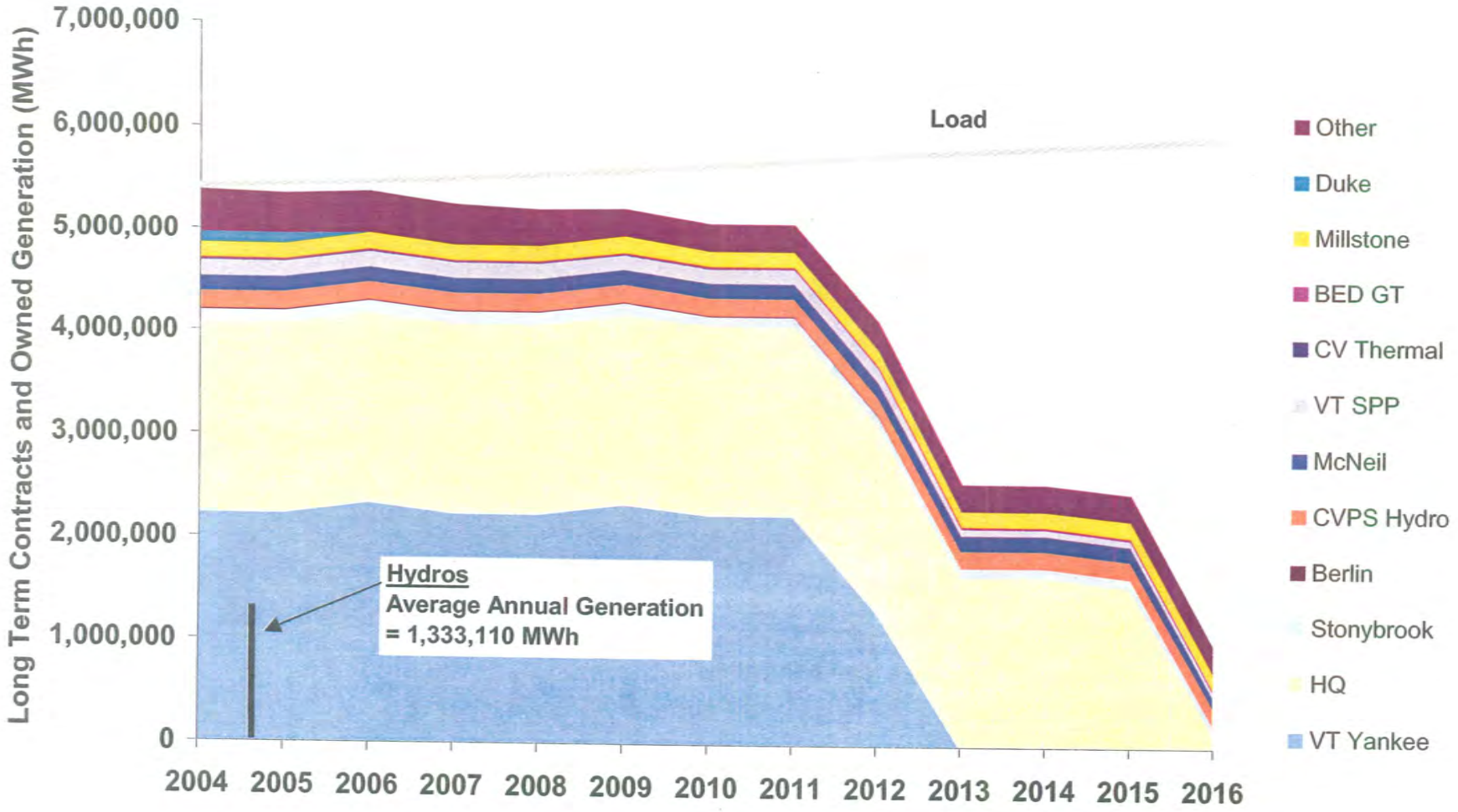
Vermont Supply and Demand Profile - Energy



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Discussions with Potential Private Partners

- Private parties have expressed interest in teaming with Vermont in the following ways:
  - Joint equity participation
  - Power marketing
  - O&M services
  - PPA back to Vermont
- Private parties are interested in partnering with Vermont because:
  - Enhances bid profile
  - Enhances financing
  - Vermont seen as an aggregator of potential load for the facilities
  - Power of a local presence

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Why Own With a Partner?

- Fills in core competencies
  - O&M services
  - Power marketing
  - Experience in bidding for generation assets
  - Bankruptcy process experience
- Allows better match of VT's ownership share to VT's need for power
- Potentially provides up-front equity to transaction
- Provides a built-in potential source of additional capital if needed

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Financing Assumptions

Private Buyer Case

- 12.3% after-tax cost of capital for private buyer; consisting of:
  - 18.0% equity cost; 9.0% debt cost

Vermont Buyer Case

- Tax-exempt revenue bonds
  - Output ultimately sold to municipals or to IOUs/spot for limited duration
  - Limited "moral obligation" of State assumed
  - Bond insurance possible but not assumed
- 7.0% debt cost for issuing agency

Municipal Buyer Case

- 5.0% General Obligation bonds issued at each municipality

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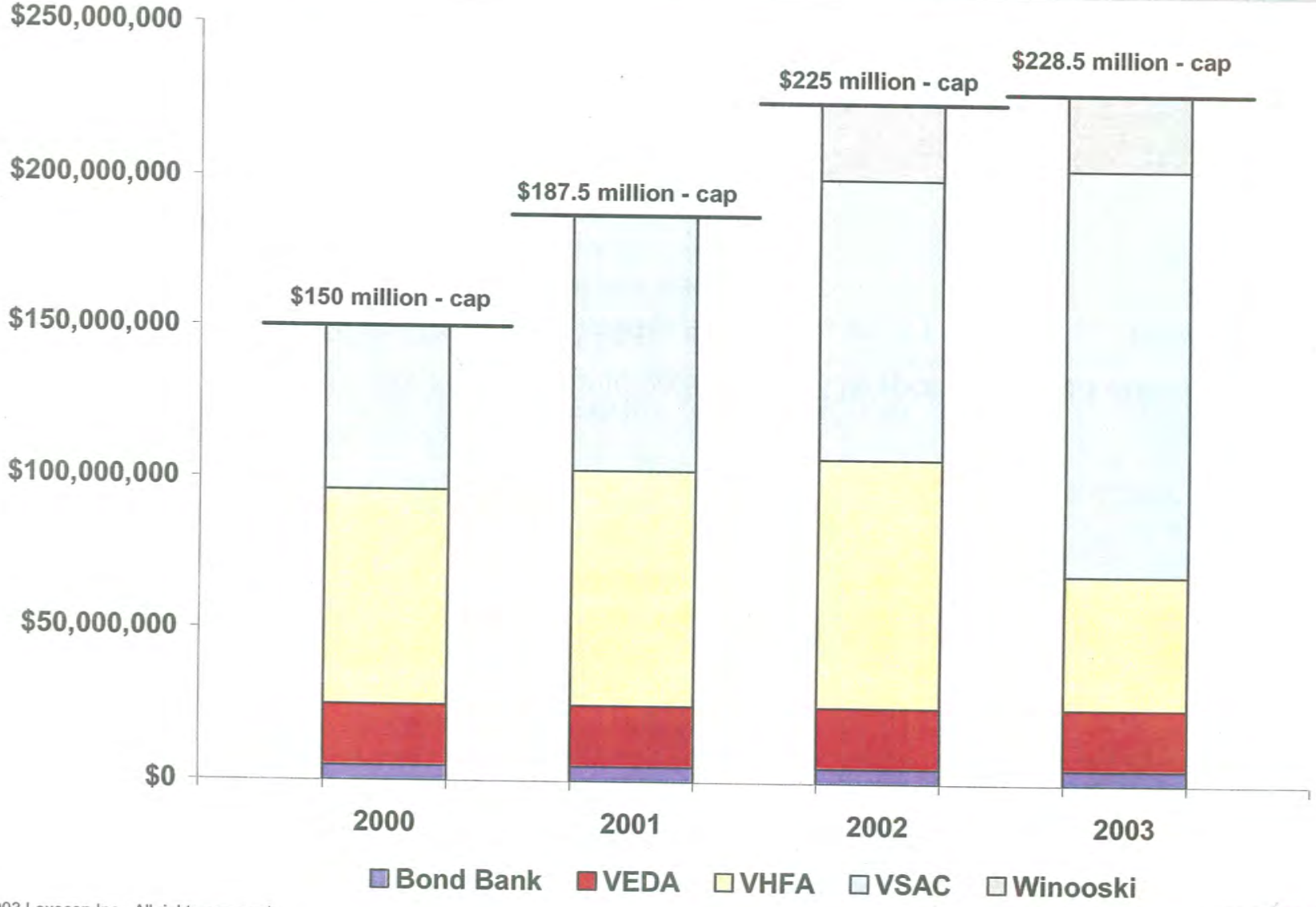
Private Activity Bonds - Volume Cap Allocated



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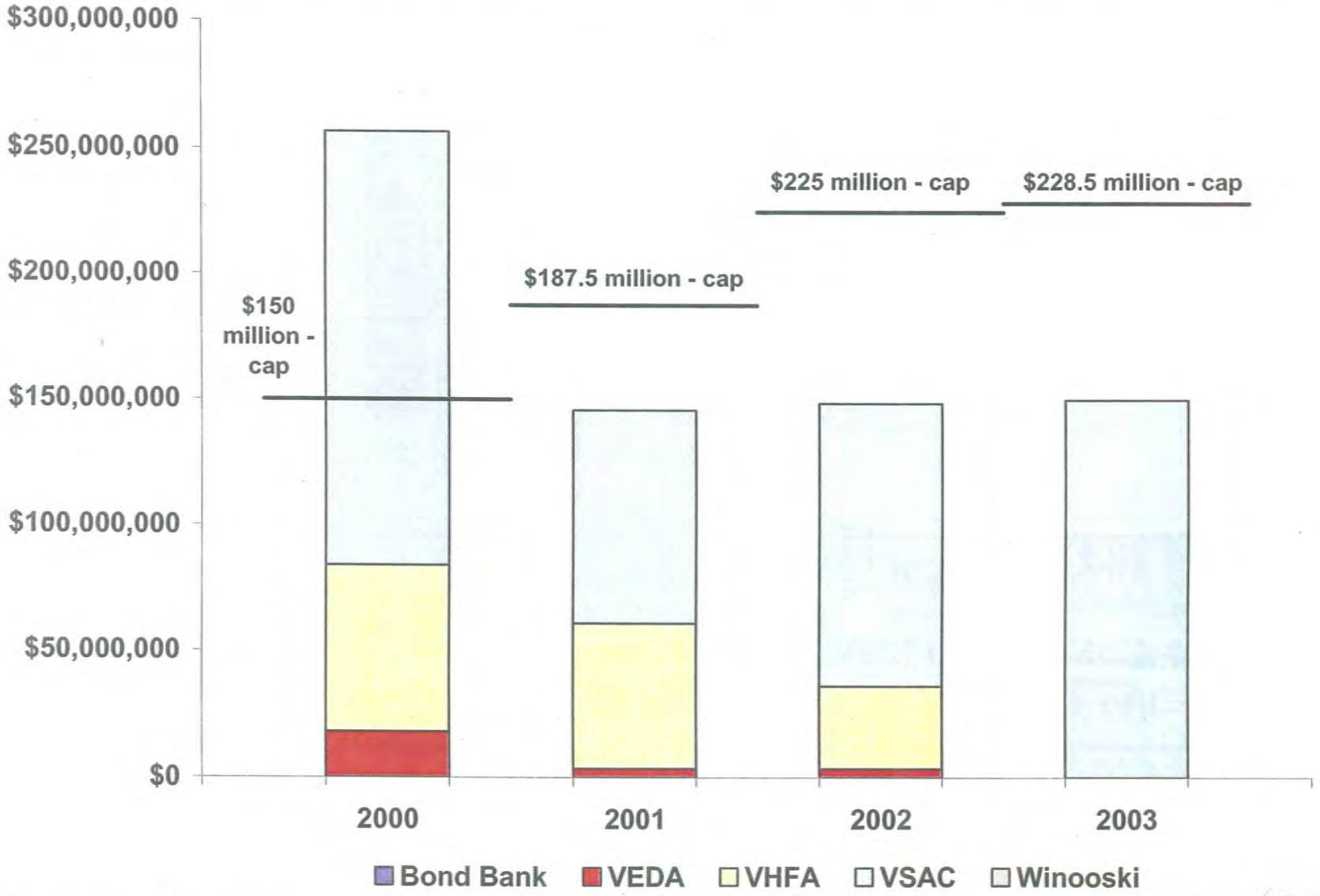
Private Activity Bonds - Volume Cap Used



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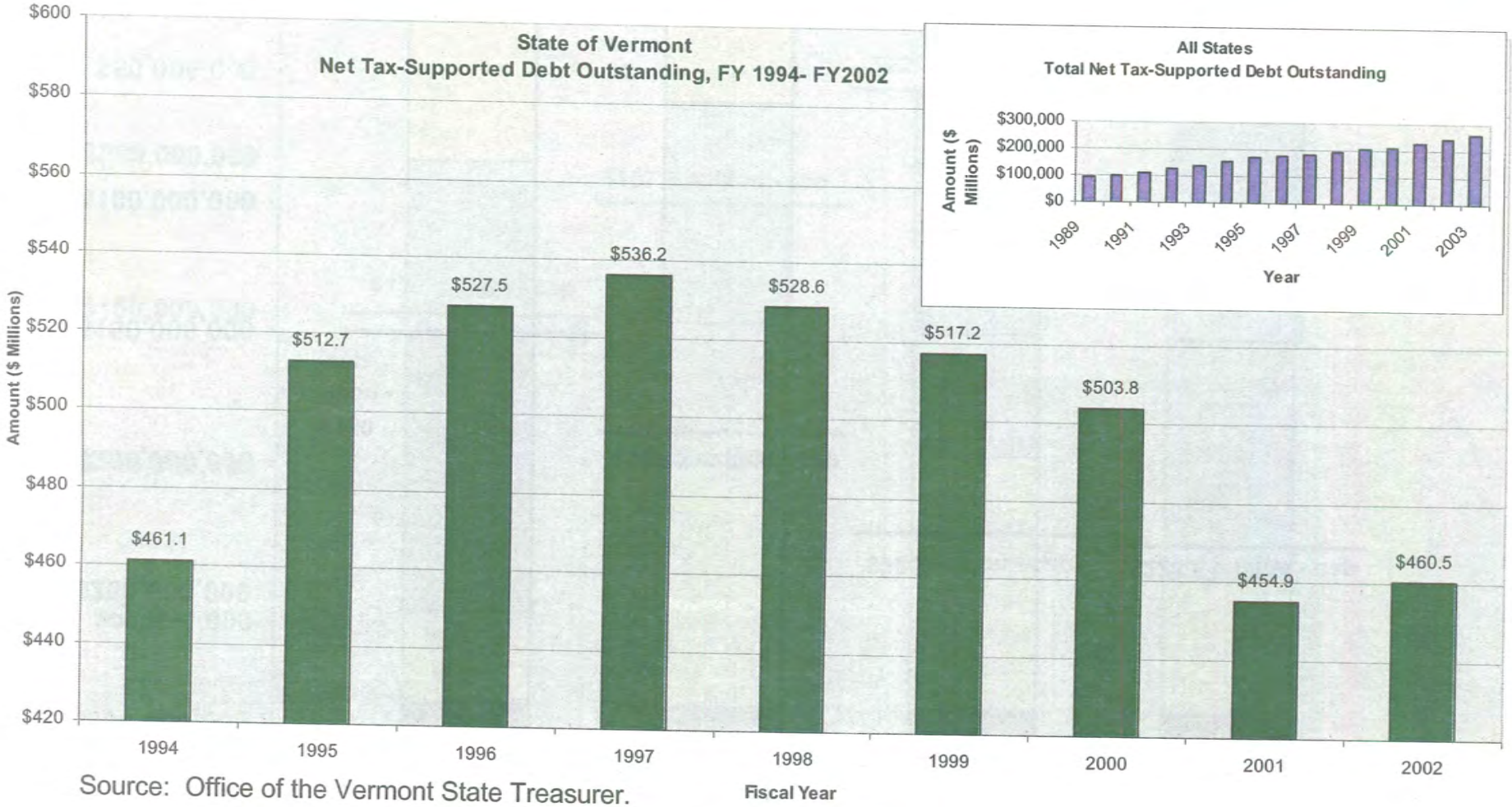
State of Vermont Net Debt Outstanding



Source: Office of the Vermont State Treasurer.

Total at June 30, 2003: $448.2 Million

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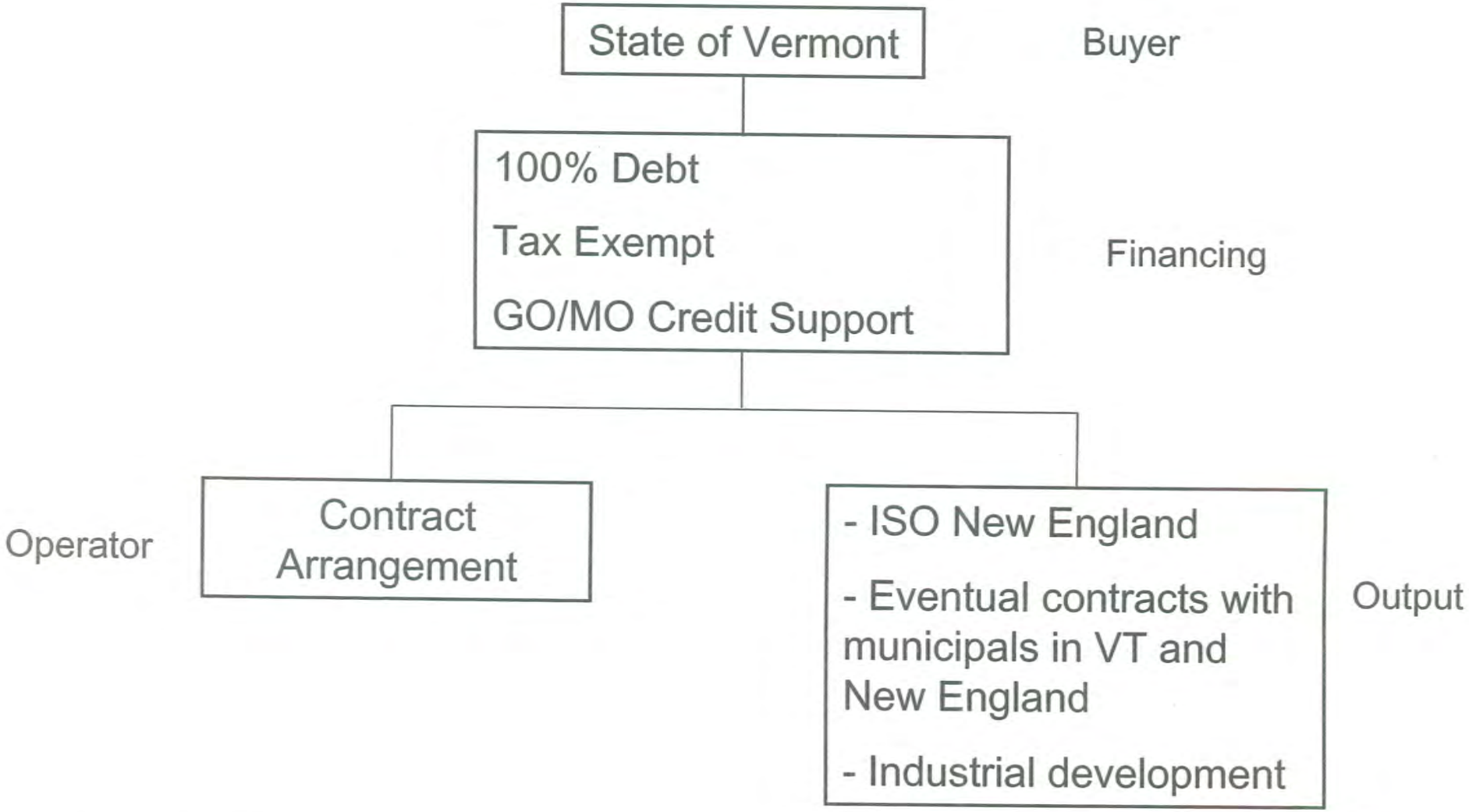
Acquisition Structure #1
Vermont Merchant Model



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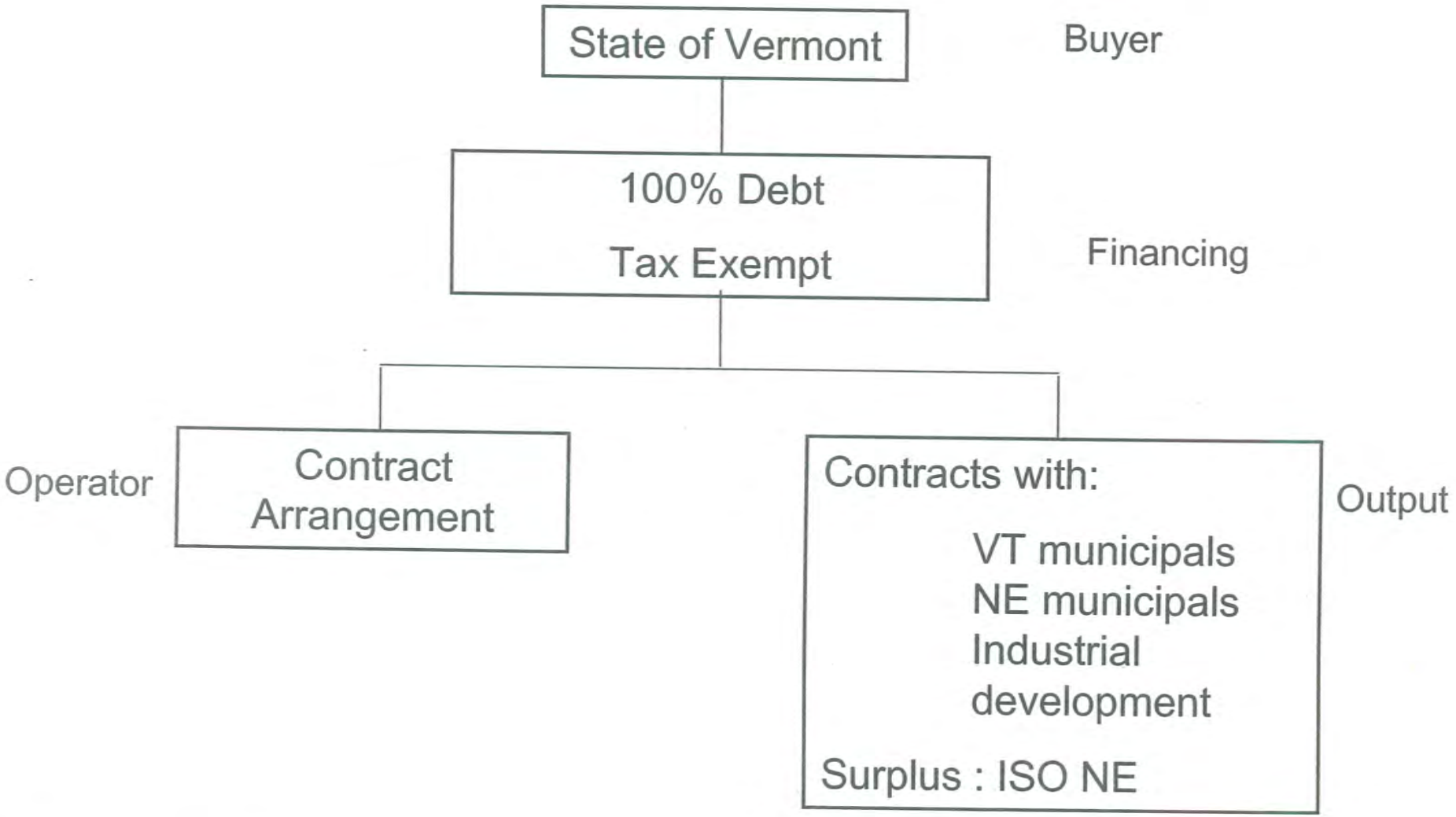
Acquisition Structure #2
Vermont Contract Model



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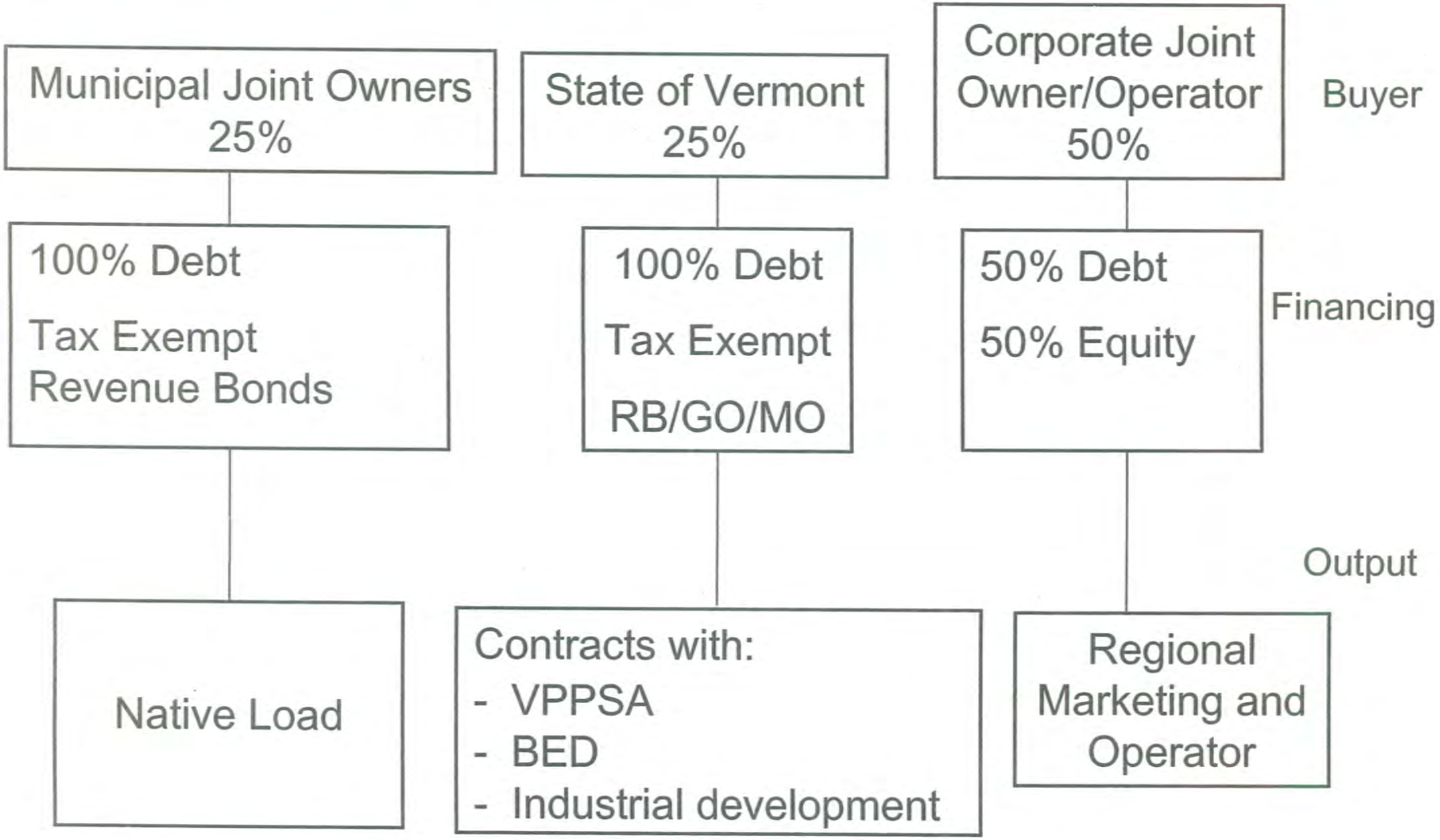
Acquisition Structure #3a
Joint Ownership Model



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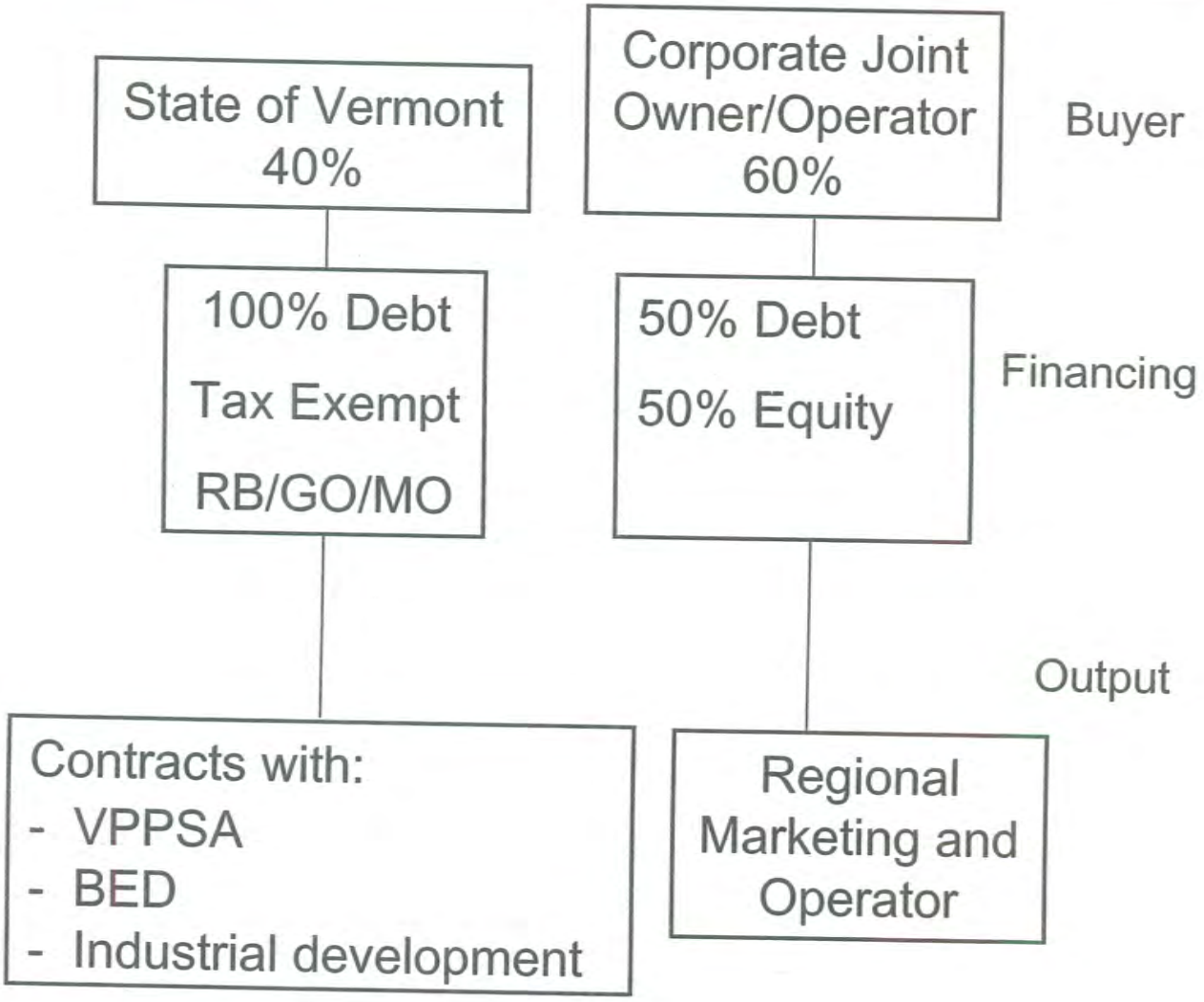
Acquisition Structure #3b
Joint Ownership Model



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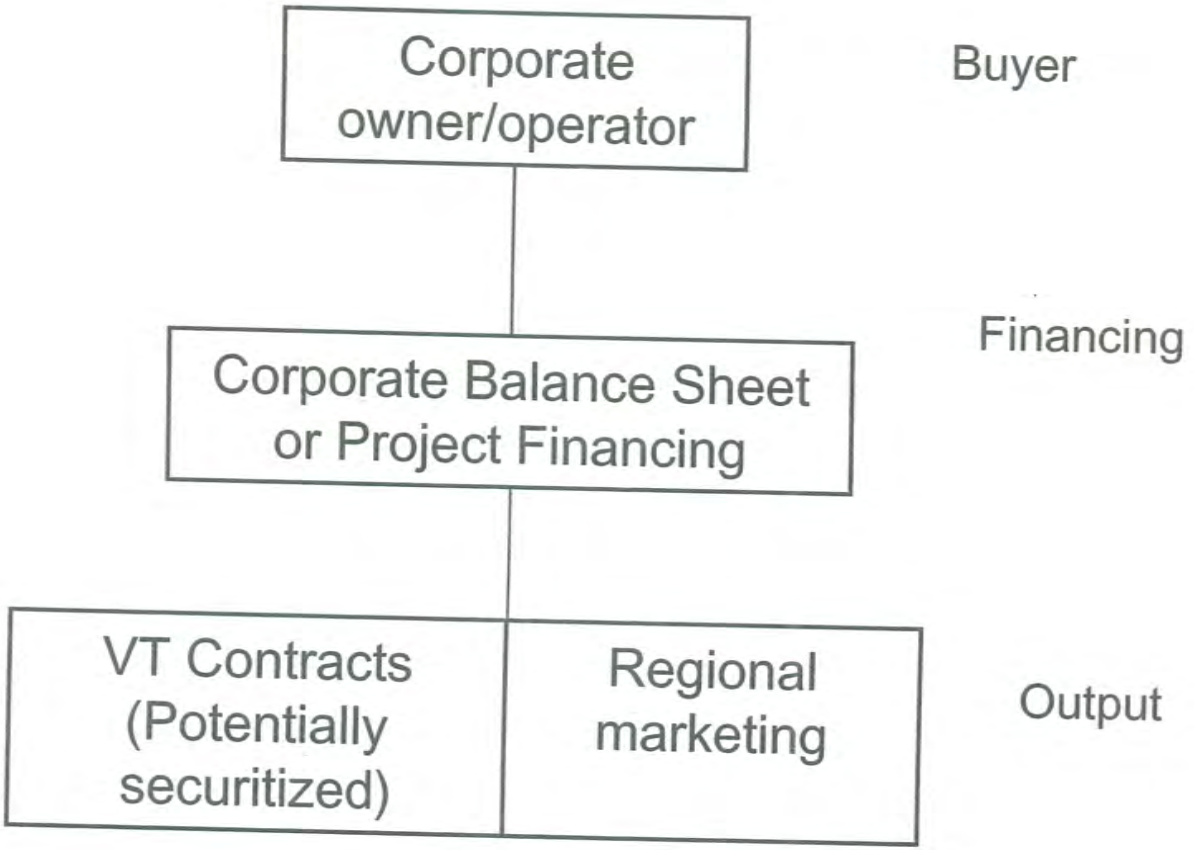
Acquisition Structure #4
Purchased Power Model



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Acquisition Model Comparisons

Structure	Pro's	Con's
#1 Vermont Merchant	•Most flexibility for directing the output and benefits to Vermont •Execution simplified (ex. financing)	•Requires State credit support •IOU contracts limited to 3 years •Uncertain of tax-exempt status •Most commercial risk •State's credit rating may be impacted
#2 Vermont Contract	•Committed contracts support financing •Reduced commercial risk •Vermont share sized to contractual commitments	•Developing contractual agreements adds to transaction complexity •Vermont benefits may be diluted with PPA agreements •Counterparty credit risks
#3 Joint Ownership	•Credit of the joint owners supports financing •Reduced commercial risk •Vermont share sized to ownership commitments •Joint owners share execution risks/costs	•Developing joint ownership agreements adds to transaction complexity •Interests of the joint owners can diverge over time and be wieldy to manage
#4 Purchased Power	•Least commercial risk •Vermont share sized to contractual commitments •Buyer assumes all execution risks/costs	•Benefits may be diluted with PPA agreements •Securitization of the contract introduces counterparty credit risk

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Probabilities of Success

Bankruptcy Outcome	Structure and Financing	Prevailing in Bid	Combined
Ongoing Entity 25%	NA	NA	0%
Equity or All Assets Combined 25%	50%	20%	2.5%
Asset Groups including Hydro breakout 50%	50%	20%	5%
		TOTAL	**7.5%**

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Risks of Ownership

- Market price risk
  - Risk of price decline in New England power market
  - Scenarios quantify loss of value
- Marketing and operating Risk
  - Inability to fulfill contracted power supplies
  - Mechanical failure causes power loss and cost of repair
  - Scenarios quantify loss of value
- FERC license renewal risk
  - 80% of MW are under license until 2037 and 2042
  - FERC license expires 2018 for the remaining 20% (lower CT)
  - License renewals may contain flow restriction and/or required capital additions
- State ownership risks
  - Reduction in State credit rating if MO or GO is used
  - Operational suboptimization
- Counterparty credit risk
  - Purchase power agreements
  - Partnership agreement
  - O&M and marketing agreements

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Benefits of Ownership

- Potential for significant net economic benefits to the State
- Price hedge for participating utilities and their customers – operating expenses and financing costs are relatively fixed
- Source of non-fossil and renewable energy
- Environmental / watershed control
- Industrial development through favorable power sale arrangements or indirect support mechanisms (eg: power price offset)

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Execution Considerations

- Assets are encumbered in an uncertain bankruptcy process
  - Bankruptcy process does not ensure availability
  - If available, part of larger integrated asset portfolio
  - Auction will be competitive with an uncertain outcome
- Negotiating agreements with partners or power purchasers adds to transaction complexity (will vary with structure)
  - Joint ownership agreement terms
  - Power purchase agreements
  - Operating and marketing agreements
- Financing will require State credit support or contracts with credit worthy entities for most or all output
  - State reluctant to place taxpayers at risk (GO or MO) or forego other programs (volume cap)
  - Tax-exempt options have requirements that may be difficult to achieve

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Conclusions

- There is a low probability of Vermont assembling a viable transaction, having the opportunity to bid on the assets it desires, and prevailing in a competitive auction.
- The capacity of the hydro assets is large in relation to Vermont's total electric capacity requirements (52%), but more reasonable from an energy perspective (25%) and smaller than the existing Hydro Quebec or Vermont Yankee energy component.
- Existing interest from Vermont's utilities is insufficient to support a 100% purchase, but a purchase could potentially be structured through joint ownership or a State-level investment.
- The analysis indicates a substantial net economic benefit to the State of Vermont from ownership, largely derived through its lower cost financing. Some of this benefit may also be realized through contracting at a lower level of commercial risk.
- Once purchased, the risks of ownership are manageable
  - Primary risks are power price risk and FERC relicensing risk
  - Scenario analysis projects that these risks are within quantified benefits
- The contract approach (Model # 2) is the basis for successful public power agencies, but would require Vermont to get out in front of the bankruptcy process and bring together a portfolio of suitable PPA's matched to 75% or more of the capacity to proceed.
- The most manageable commercial options for Vermont are either joint ownership or purchasing the output from the eventual owner (Models 3 and 4).

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Alternative Paths Forward

I. Discontinue activity at the State level
- Leave it to the Vermont municipal and investor-owned utilities to pursue contract or ownership options at their discretion
- Provide complete information to Vermont's municipal and investor-owned utilities from the study
- Monitor the USGen bankruptcy process and report back to the Legislature if a change in circumstances improves the probability for a successful acquisition

II. Pursue a path forward to improve the probabilities of success
- Continue discussions with commercial partners and municipalities (Structures 2, 3 and 4), and work toward a definitive structure and commercial terms (MOU)
- Develop an acceptable financing plan
- Proactively monitor the USGen bankruptcy process
- Re-estimate the costs and benefits based on a firm structure and report back to the Legislature

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