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Energy Economics, Inc.

# Best Practices in Procurement of Basic Electric Service for Residential and Small C&I Customers:

## The end of the transition period in Massachusetts

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Prepared for the Office of Massachusetts Attorney General

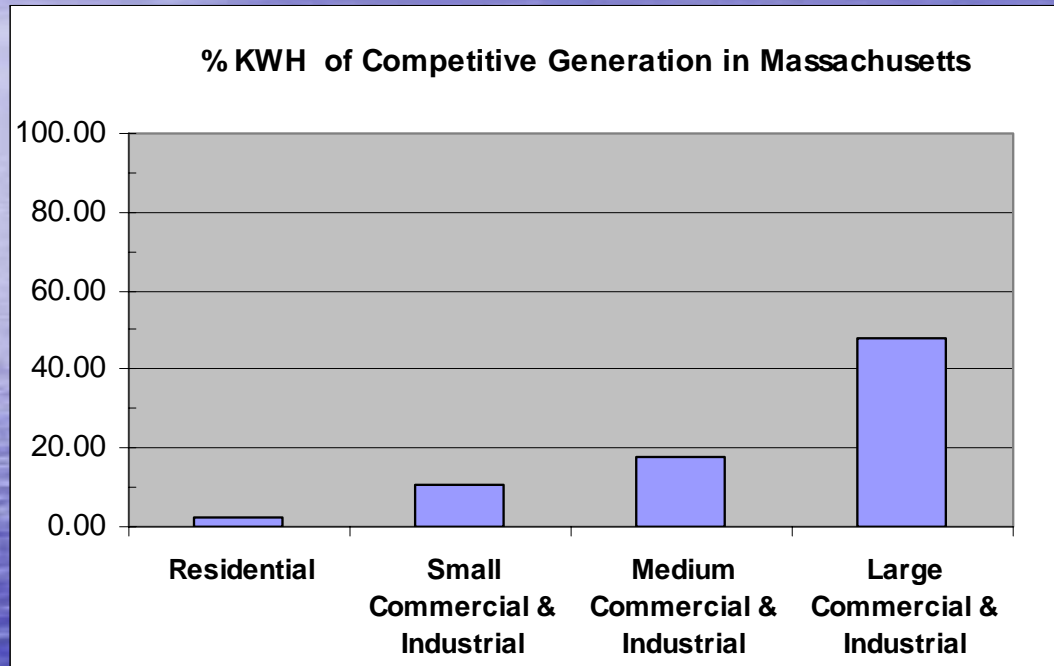
# Recommendations for Massachusetts:

1. Abide by MA DTE Order D.T.E. 02-40-B: Utilities will provide basic service. No competition just for competition's sake.
2. Understand lack of residential, small C&I switching for near and medium-term: The majority need low-cost, basic service.
3. Apply a ladder approach to the procurement process to reduce price volatility.
4. Allow competitive suppliers to compete.

# The MA DTE Order: D.T.E. 02-40-B

- The Department concludes that it is appropriate that distribution companies continue to function as default service providers for their [smaller] customers.
- The pricing and procurement strategy for smaller customers must ensure the availability of electric service at reasonable and stable prices.

# Competitive Statistics in MA and elsewhere....



No state currently has >10% residential switching.

There has been no indication anywhere in the US that mass residential/small c&i sector migration will occur in the near or medium-term.

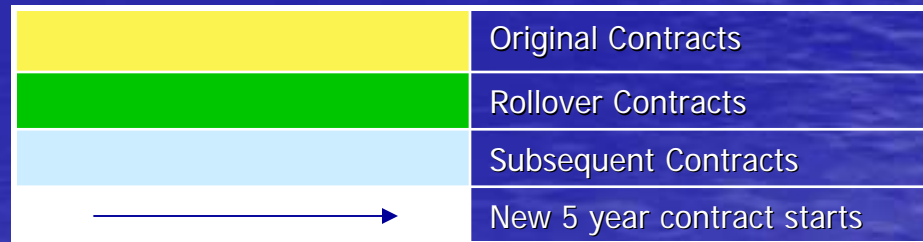
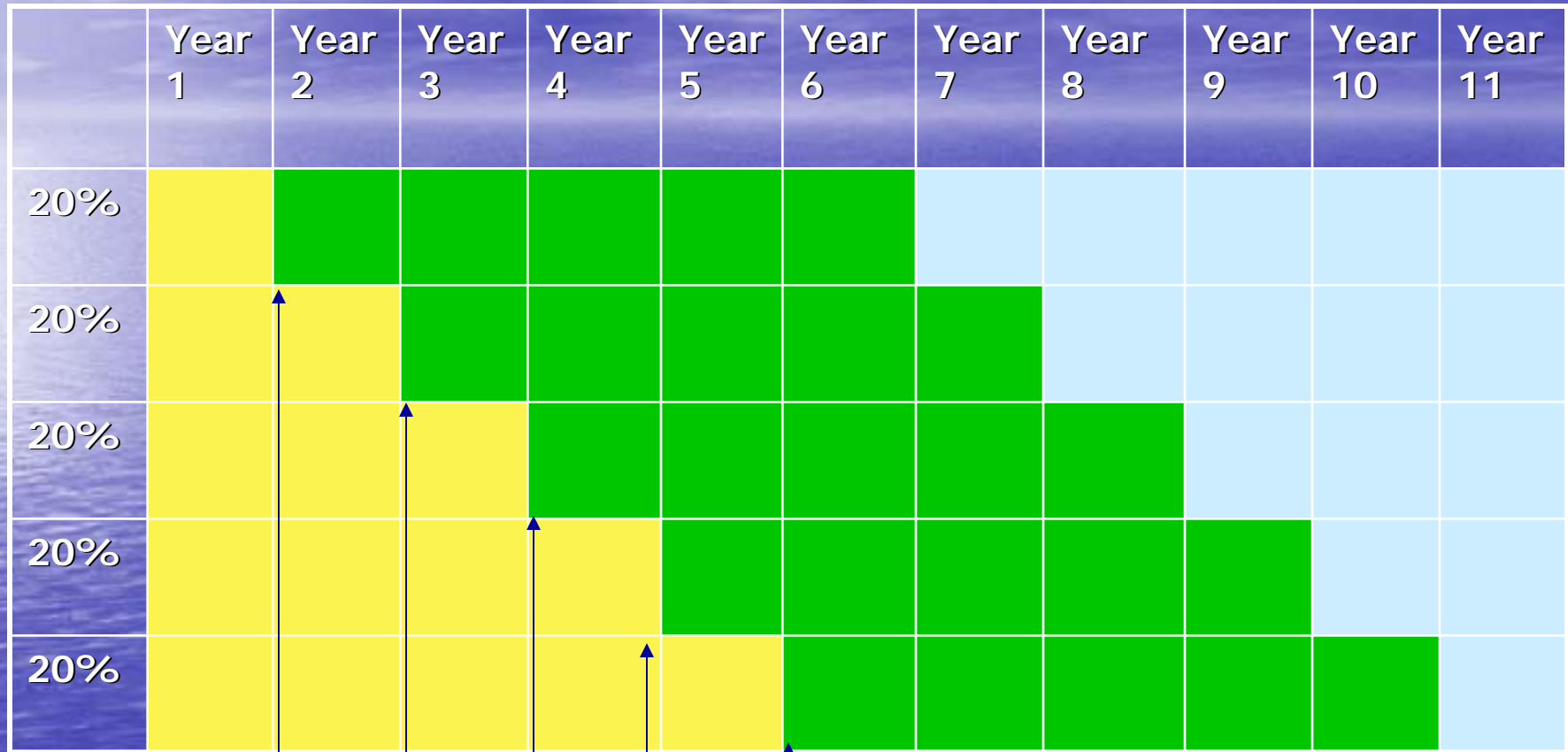
The majority of residential and small C&I customers need low-cost, reliable, basic service.

# The recommended procurement solution: Laddering

- A 3-5 segment ladder with annual maturations with some utility discretion
- An example of a simple 5-year ladder
  - Start with contracts that mature in 1, 2, 3, 4 and 5 years for segments of the ladder
  - Each subsequent year, procure additional contracts with a five year maturation date
- Utilize an RFP process.

For a 5-year ladder, every year, 20% of the ladder expires and 20% of the ladder is newly purchased.

# A 5-year Laddering Approach:



# An Alternative Laddering Approach

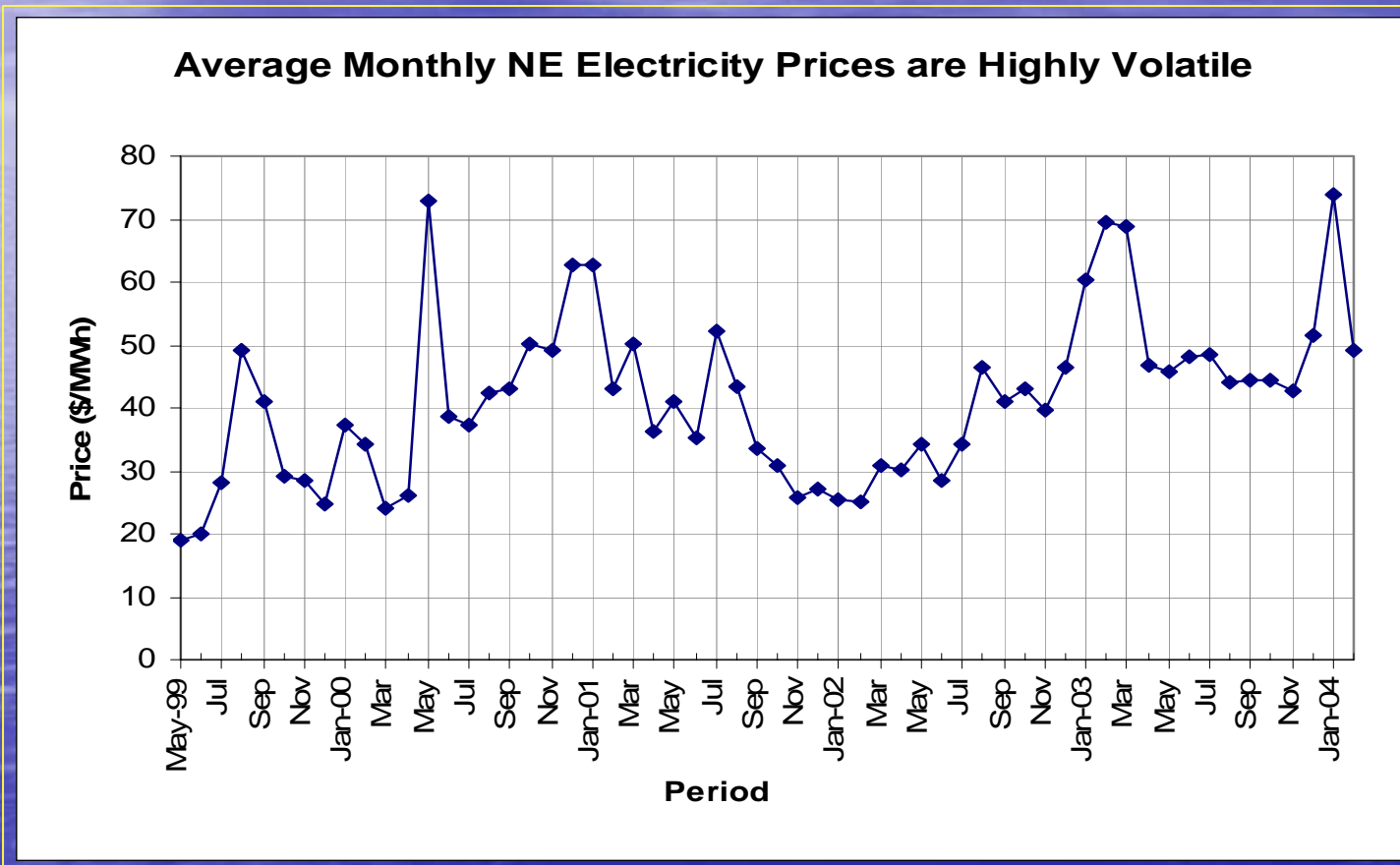
- Some small utilities may find it hard to get an RFP for only 20% of their load.
- Purchasing 25% every 3-years with an option to add 25% might work better for them.
- This approximates a 3-year ladder with a discretionary option to purchase an additional 25% in any one of the 3 years.

# Other States have chosen to Ladder Contracts.

<u>State</u>	<u>Default Term End Date</u>	<u>Procurement Rules for Default Service</u>
Connecticut	2007	Contracts procured in overlapping pattern of fixed periods. The contracts must be for terms of not less than 6 months, unless shorter terms are justified.
Maryland	Various	Utilities must attempt to obtain 1, 2, and 3 year contracts with 50% of load served through a 1-year contract.
New Jersey	2006	Single annual auction date. Each year, fixed price contracts for 36 months for 1/3 of supply are procured and fixed price contracts for 12 months for 2/3 of load.
Washington, DC	2006	Recommended to utilities that contract mix should include contracts of at least 3 years for no less than 40% of the total load



# Risks due to fluctuating wholesale market prices



Contracting a large portion of supply at one point in time increases exposure to price volatility.

# Risks due to future environmental regulations

- There is considerable uncertainty about the type and extent of environmental regulations that may be imposed in the near- to long-term future
  - Utilities and wholesale vendors of electricity already must comply with sulfur dioxide (SO<sub>2</sub>) and nitrous oxides (NO<sub>x</sub>) emission requirements.
  - Most groups recognize that some form of regulation of Hg and CO<sub>2</sub> is highly likely.
- Planning for such uncertainties and hedging against those price risks is both feasible and vital.

Through the RFP process, a mix of emission profiles can be encouraged.

# Risks due to fuel price and supply fluctuations

"Average U.S. peak electricity prices are expected to rise 48 percent in 2003 from the previous year, mostly the result of a surge in natural gas prices... We do not forecast a return to normal supply- demand balance... before 2008." (UBS 2003)

Gas price volatility and, hence, electricity price volatility is here to stay until new gas supplies are commercialized in future years.

A diverse set of fuels and technologies can be encouraged in the RFP process.

# Peak cost risks due to extreme weather

- The importance of peak load shaving is well known.
  - Photovoltaics (PV) will generate the most electricity during midday in the summer season - just when electric load and price is highest for most regions.
  - Another technology that can help with peak load reduction is wind.

Through the RFP process, renewables that are especially powerful at reducing peak prices and increasing reliability, can be encouraged.

# Risks due to the risk of market power

- Multiple, laddered, longer-term forward contracts reduce exposure to market power of large generation holders by reducing exposure to short-term manipulations and by making bidding more feasible for small and medium-size generators.
- Serving a portion of the need from efficiency and new renewables actually reduces market power of large generation holders by reducing their market share.
- Multiple, laddered, longer-term forward contracts reduce exposure to market power of large generation holders by providing a predictable, longer-term revenue stream for potential new market entrants

# System reliability and security risks

- A laddered strategy offers significant reliability benefits due to its basic diversification principles.
- Diversification can take the form of varied fuels, technologies and a mix of generation, transmission, demand-side resources, and energy efficiency.
- On average, with laddering, each resource may represent a relatively smaller proportion of the total.

Relying on many resources is inherently more stable than relying on one or a few resources subject to unique risks.

# Best practices in basic service procurement:

- Use of laddered contracts.
- Inclusion of a reasonable percentage of longer-term contracts.
- Use of demand side management programs to reduce exposure to market risks.
- Potential inclusion of long-term, fixed price contracts for renewables to reduce exposure to fossil fuel prices and environmental risks.
- Extended transition period to develop a longer planning and acquisition strategy.

# Other procurement considerations:

## Financial Hedging:

- The practice is still relatively new to the electric industry.
- Hedging should be left to the individual suppliers who respond to the RFP.



# Take aways...

The majority of residential and small C&I customers need stable-priced, reliable basic service.



Contract laddering through competitive RFPs can ensure this result.



A reasonably priced basic service is not a barrier to competitive retail supplier entry; it is a necessary benchmark or “price to beat.”