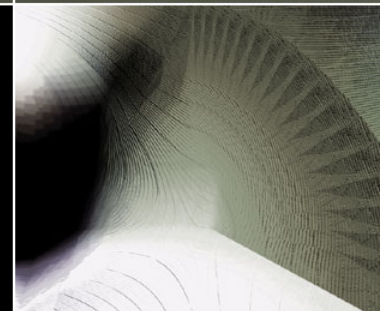


# Utility Owned Generation? (UOG)



Electric Restructuring Roundtable  
December 8, 2006

# The Energy Consortium

- Nonprofit Association of commercial, industrial, institutional and governmental large energy users
- Sponsors joint actions to promote fair cost based energy rates, diversified supplies and reliable service for its members
- Harvard, Acushnet, MIT, Tufts, Fidelity, Procter & Gamble, Wyeth, etc.

# Why would utilities in re-regulated (Competitive Supply) states install generation?

- **Relieve capacity shortages**
  - Reliability
  - Customer cost management
  - Increase revenue
  - Avoids interconnection hassles
  - Distribution issues

# Why do utilities think this is the answer?

- Traditional solution
- They have the obligation to serve; customers hold them accountable
- They know the business
- Cost recovered through rate base

# Questions?

- Is this the best solution?
- What is the environmental impact?
- Is this economically efficient?
- Does current regulation support this?
- Does UOG support the continued evolution of restructured electric markets and competitive supply?

# Not really!

- UOG fails to acknowledge new methods for supplying energy that go beyond traditional solutions
- UOG may be in competition with local merchant generation

# New Energy Solutions

## Non-traditional Proposals

### ○ ISO-NE

- Demand Resources qualify as capacity
  - Energy efficiency, load management, Distributed Generation
- Driven by issues with new capacity–
  - Siting is difficult
  - Environmental hurdles of traditional generation
  - Interconnection issues
  - Time

# Other Non-traditional Solutions

- Energy Policy Act of 2005
  - Includes funding to study the benefits of Distributed Generation
- MA Long-term Energy Plan – 2006
  - Encourages innovative energy policy including energy efficiency, conservation and on-site generation
- Conn. Legislation
  - Supports DG development
- Massachusetts Climate Action Plan - 2004

# Large Customer View

- Energy is a big ticket item -
  - Dramatic price increases during the past 2 years
  - Major cost of doing business
  - Increased management scrutiny
- Needs -
  - Reliability
  - Power Quality
  - Reasonable costs
  - Environmental concerns
  - Supportive local utilities

# Large Customer Role in New Energy Dynamics

- **Distributed Generation –**
  - A natural solution for TEC members
  - Relieves congestion on the Grid
    - Meets reliability needs
    - Lower cost than stand alone generation
    - Quickly deployed
    - Reduces losses
  - Environmental benefits
    - Significantly reduces emissions
    - Less fuel use – 80% efficient vs. 30% for stand alone gen.
  - Economic
    - Fuel efficiency
    - Electric cost savings

# 2004 USAEE/IAEE Study Results

- Tom Casten conducted study re: Optimum future Generation
  - Modeled 8 scenarios to meet EIA projected load growth through 2020 (43%)
  - Determined capital cost, performance, emissions for each technology in each year
  - Added T&D, 100% for Central generation, 10% for DG
  - Projected retail price needed to support technology in each year

# Results, CG versus DG Dollars (Dollars in Billions)

Item	All CG	All DG	Savings	% Saved
Capacity + T&D	\$831	\$504	\$326	39%
Power Cost	\$145	\$92	\$53	36%
Tons NOx	288	122	166	58%
Tons SO <sub>2</sub>	333	19	314	94%
MM Tonnes CO <sub>2</sub>	776	394	381	49%

# Does current regulation support UOG?

- Electric Restructuring Act 1997 required divestiture of fossil fueled generation by utilities.
- Is a change of the law necessary to have UOG?
  - If so, that will take time
- \$\$

# Does UOG support the continued evolution of restructured electric markets and competitive supply?

- UOG is not promoted in local, state or national plans.
- UOG - a traditional solution
- Let's push the envelope!

# Paradigm Shift

- Customers and energy providers partner to develop the most economic and environmentally efficient electric system
- Demand Resources = capacity
- Review all alternatives
  - DG
  - Energy efficiency and load management
  - Renewables
- Look for a win-win situation for all
- Review societal benefits of all possible solutions.

# Should Utilities Own Generation?

- Not if a more efficient alternative can be utilized to do the same thing
- Not until all alternatives have been exhausted