Synapse
Energy Economics, Inc.

Composite Offers in the FCM

Presented to the Demand Resources Summit
2 May 2007
By Doug Hurley
Synapse Energy Economics, Inc.

Energy system modeling, analysis, expert testimony, and stakeholder representation for…

- Consumer Advocates, Public Interest Groups, PUCs, Attorneys General, and Environmental Groups in more than 25 states
- Recent reports include:
  - **LMP Electricity Markets: Market Operations, Market Power, and Value for Consumers** (APPA)
  - **Portfolio Management: Tools and Practices for Regulators** (NARUC)
  - **Climate Change and Power: Carbon Dioxide Emissions Costs and Electricity Resource Planning**

Synapse in NEPOOL

- Ongoing representation for Consumer Advocates and Demand Resource providers
- Settlement Agreement
  - From Day 1, worked with a coalition of supporters to include language including Demand Resources in the FCM
- Market Rules and Manuals
  - Developed two whitepapers on the impact of and proper treatment of energy efficiency resources in the FCM
    - ***Incorporating Energy Efficiency into the ISO New England Forward Capacity Market***
    - ***Options for State Funded Energy Efficiency Programs in the Forward Capacity Market***
  - Coordinated with a group of Demand Resource providers, consumer advocates, environmental advocates, and NECPUC
    - Demand Resources Group
    - ICR Stakeholder Process WG
    - Markets Committee
    - Participants Committee

Agenda

- Introduction
- Opportunities
- Challenges
- Possible Solutions

- Forward Capacity Market
  - Annual Market for Capacity
  - Three-year forward procurement
  - Traditional Generation and Demand Resources
  - Some demand resources are summer- or winter-only and must use Composite Offers
  - Composite Offers for resources with seasonal differences in capacity

Seasonal Resources

- Summer
  - ***Central A/C***
  - New Construction
  - Load Management and Demand Response
- Winter
  - Some lighting measures
  - Electric space heating
  - Load Management and Demand Response
  - Ski area operations
  - ***Thermal Generation***

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ISO new england

2006-2015

FORECAST REPORT OF

CAPACITY
ENERGY
LOADS AND
TRANSMISSION

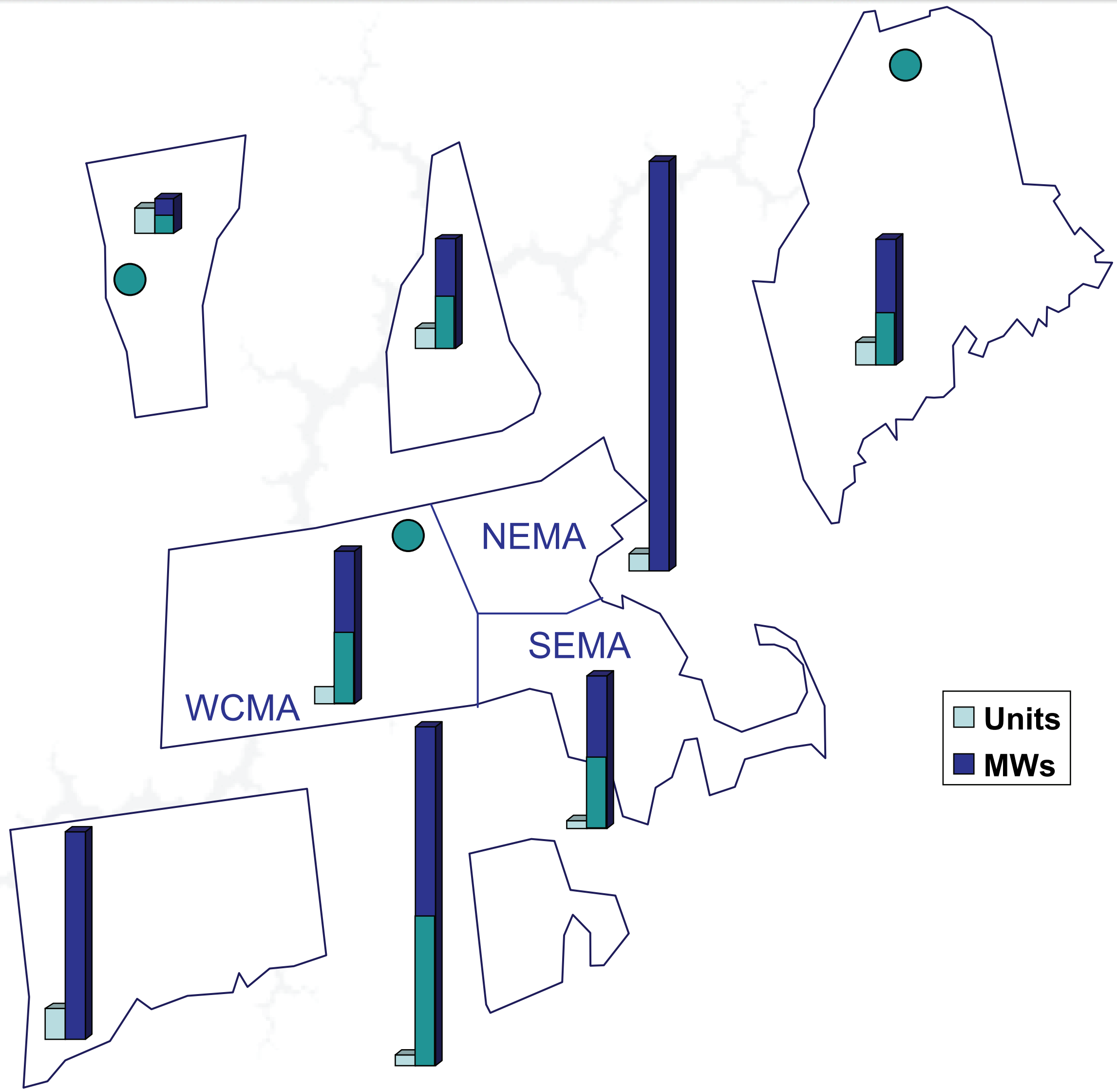
Many fossil fuel power plants have more capacity in the winter than in the summer. This excess winter capacity is an underutilized resource.

Lead Participant	ASSET ID AND STATION NAME	UNIT TYPE	NET CAPABILITY - MW SUMMER	NET CAPABILITY - MW WINTER	PRIMARY FUEL ENERGY SOURCE	PRIMARY FUEL TRANSP. METHOD
	Massachusetts Municipal Wholesale Electric Comp					
Generation Claimed for Capability						
MMWEC	583 STONY BROOK 2A	GT	67.400	87.400	DFO	TK
MMWEC	584 STONY BROOK 2B	GT	65.300	85.300	DFO	TK
MMWEC	1185 STONY BROOK GT1A	CC	104.000	119.000	DFO	TK
MMWEC	1186 STONY BROOK GT1B	CC	100.000	116.000	DFO	TK
MMWEC	1187 STONY BROOK GT1C	CC	104.000	119.000	DFO	TK

Potential of Thermal Generation

Load Zone	Units	MWs
VT	46	63
NH	36	200
ME	42	230
NEMA	31	750
SEMA	14	280
WCMA	32	280
RI	20	620
CT	57	380
Total	**278**	**2,803**

(From CELT 2006)



The Process

- Summer partner leads
- Both qualify separately
- Summer resource in auction
- Monthly bilaterals

Nuances

- All summer (June – Sept) from one resource
- Can combine more than 2 resources
- Can combine >1 demand resource, from multiple load zones, with a winter partner … as long as all are within in a single capacity zone (which will vary by auction)
- New and Existing Resources
- Multi-year commitment issues
- Bilateral contracts

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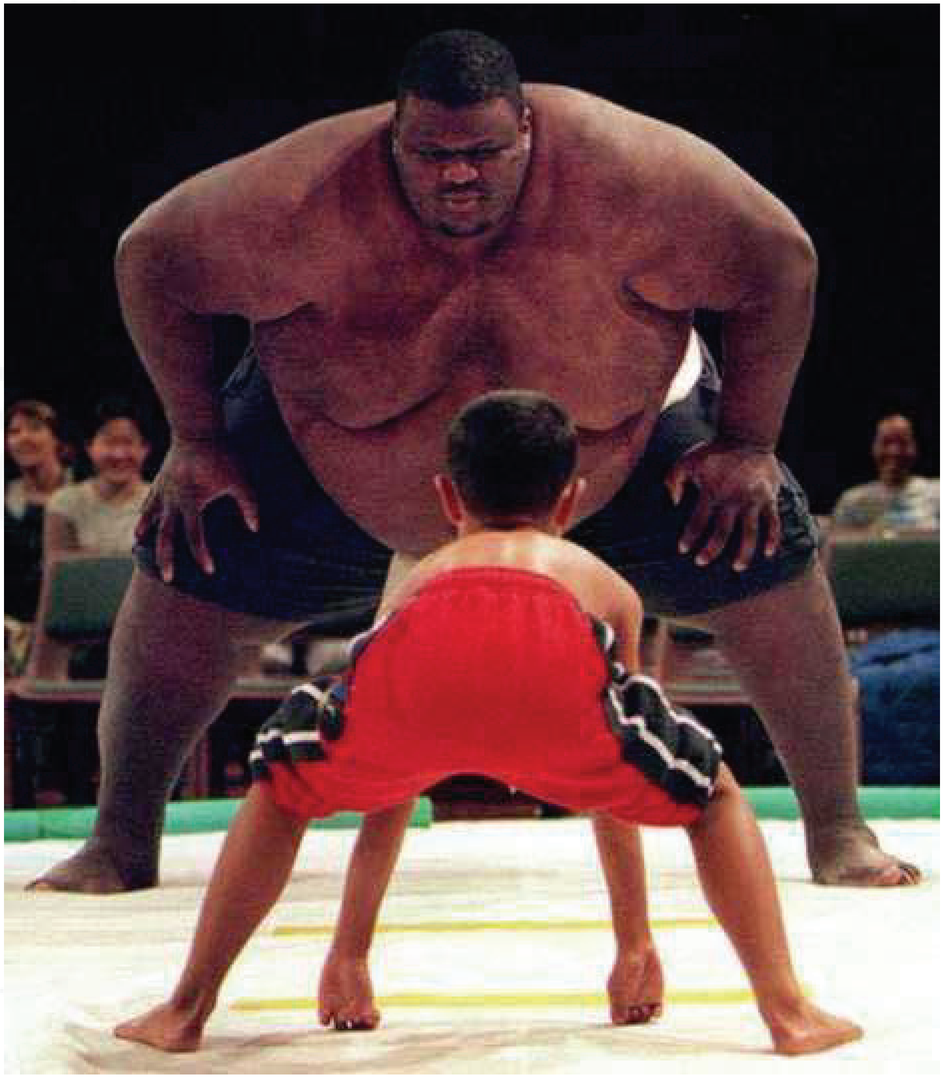
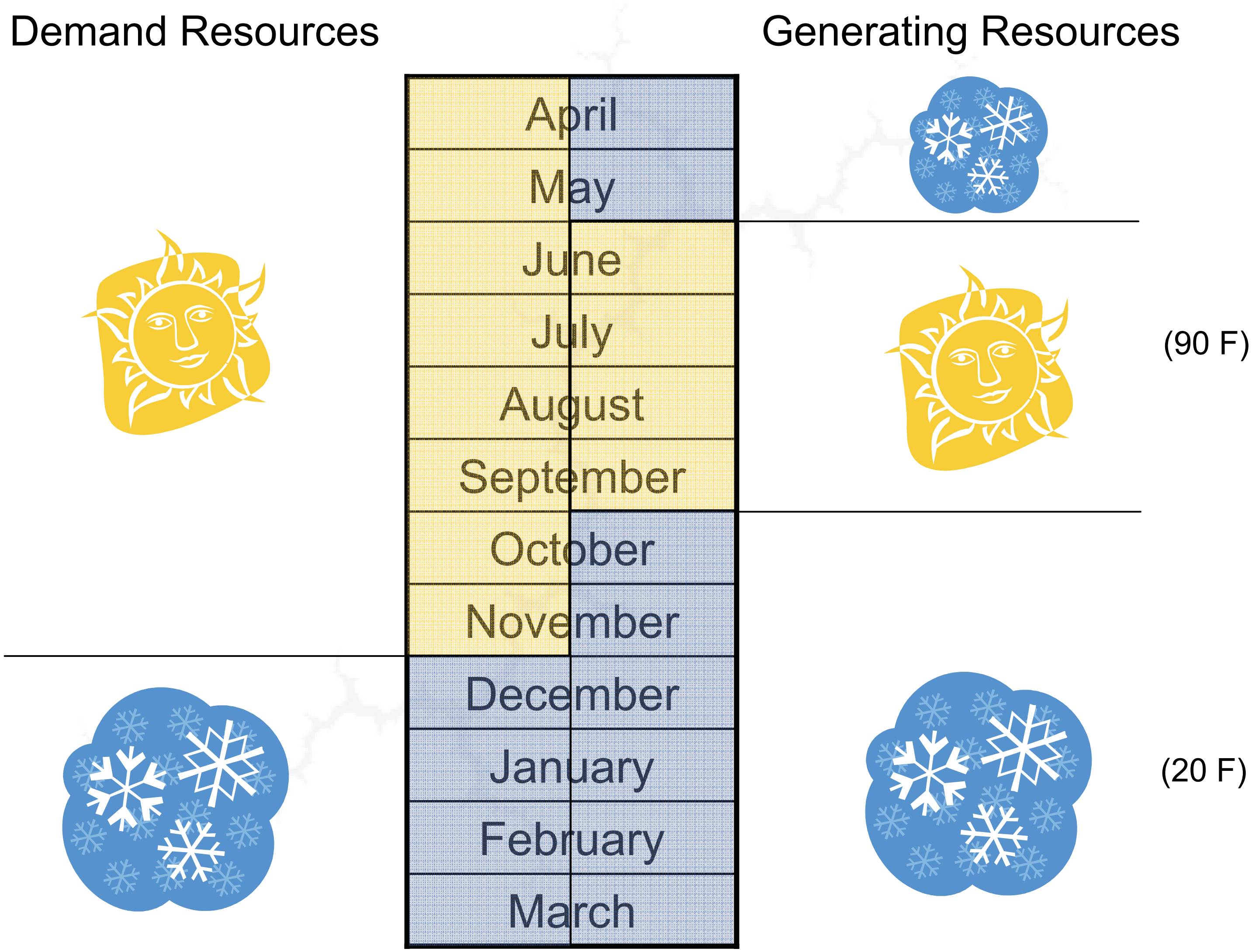
- Possible Solutions

Challenges

- Timeline
- David and Goliath
- Imbalance of power
- Large Intermittents
- Careful contracts
- You are pioneers



Challenge – Seasonal Ratings



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Possible Solutions

- Balanced Portfolio
- Pairing of Demand Resources

From a regional market perspective, both are an inefficient use of existing capacity and demand investment

- Pairing with Thermal Generation
  - Existing supplier contracts
  - Industry contacts or lots of cold calls
  - Opportunity for a new pairing service

The FERC is watching …

Further Information

- Section 11.II.D.5 of the Settlement Agreement
- Section 13.1.5 of the recently accepted Market Rule 1
- Paragraphs 149-152 of the 16 April 2007 FERC Order

Contact Information

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