

# Solar Thermal Solutions In Boston and the Northeast

**KeySpan - National Grid**

**Solar Boston**

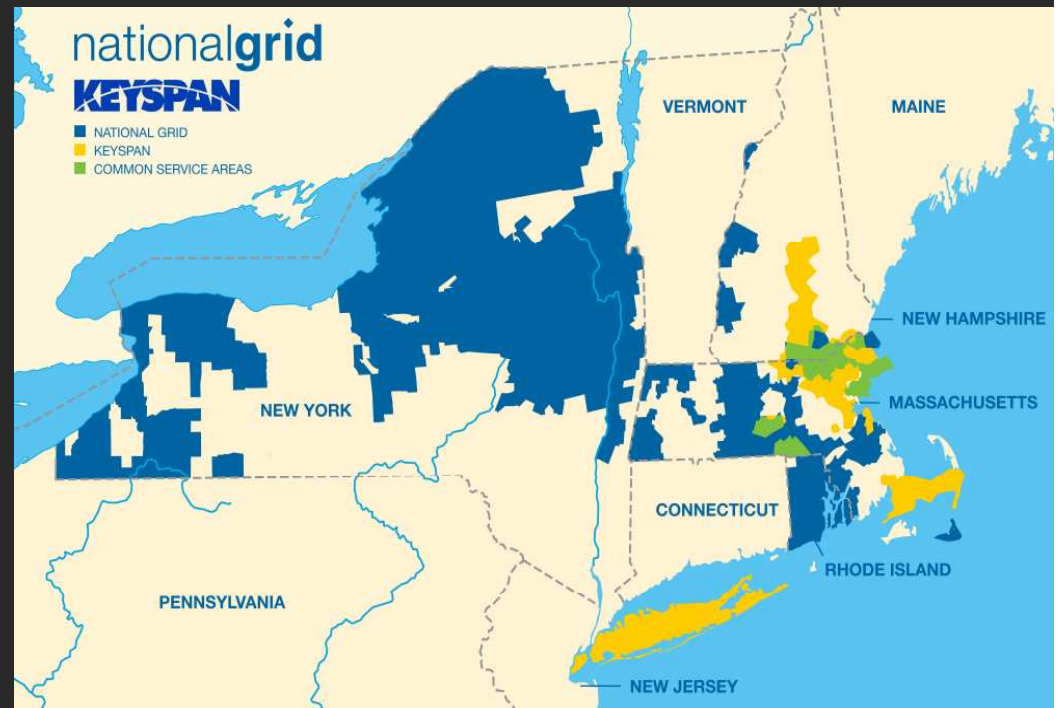
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# KeySpan – National Grid

- MA, NH, RI and NY
- 2<sup>nd</sup> largest utility in the US
- 3.4M gas customers
- 3.5M electric customers
- \$53M in gas efficiency funds
- \$75M in electric efficiency funds



# Presentation Topics

1. Why do we promote solar water heating?
2. The KeySpan – National Grid solar thermal program
3. Applications
4. Market barriers
5. Forecast

# Why Solar Water Heating?

## \* Customer Service

- Full service energy provider

## 1. Economic Value

- energy savings

## 2. Environmental Benefits

- carbon savings

## 3. Technical Applications

- variety of applications



# KeySpan Solar Thermal Program

## Residential:

Solar Domestic Hot Water – \$1500 per household account

- Pool Heating (15% of project cost up to \$1500)

Step #1 – Contact solar installer

Step #2 – Submit application and installer's quote to reserve funds



# Residential Requirements:

- **Systems (collectors) must be OG-100 certified**
- **2 year installation warranty**
- **5 year manufacturer warranty**
- **Freeze protection**



# KeySpan Solar Thermal Program

## Commercial:

Solar Thermal - \$3/therm first year savings

LIMIT 50% project cost or \$100,000

- Domestic Hot Water
- Pool Heating
- Space Heating
- Process Hot Water
- Solar Assisted Cooling
- Solar Air

Step #1 - energy audit

Engineering Grant Funds up to \$10,000



# Domestic Hot Water

- Multi Family Residences
  - affordable housing
  - condo cooperatives
  - luxury condos
- Hotels
- Restaurants
- Mixed Use
- Commercial Spaces

MA Green Affordable Housing Initiative





# Multi Family Residences

## Bowdoin Apartments – 226 units, Malden MA

WINN Management, Affordable Housing

- 100 Panels, 6 buildings
- Therm savings estimated at 8400/per year (w/HEHW boilers)
- \$55K rebate with *Economic Redevelopment funds*
- First solar monitoring project



# Solar Pool Heating

- Schools
- Community Centers

Economic Redevelopment Program offers 2-3x the rebate depending on community impact

No tax credit for schools

Massachusetts Green Schools Program



# Other Applications

## Space Heating

(radiant, pre heat, integrated CHP)

- Facilities, Labs
- Office Space

## Process Hot Water

- Industrial
- Food Processing

## Solar assisted Cooling

- Absorption Chiller

Engineering Grants available up to \$10,000

# Potential

- Every year we rebate 1000 residential high efficiency water heating installations
- Conduct more than 650 commercial audits per year (200 MF customers)
- Solar Boston will help build awareness
- Article 80 integrate green technologies in the building design process

# Forecast and Conclusion

- Complements energy efficiency and carbon saving programs
- Increased marketing, more trade ally development
- Support curricula to include SHW technology
- Integrated solar thermal applications (R&D)

More solar thermal installations, increase awareness



**Thank you**

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