

Energy Efficiency Gas Resources

Providing Relief of Capacity Constraints on Gas-Fired Electric Generation During Polar Vortex Conditions

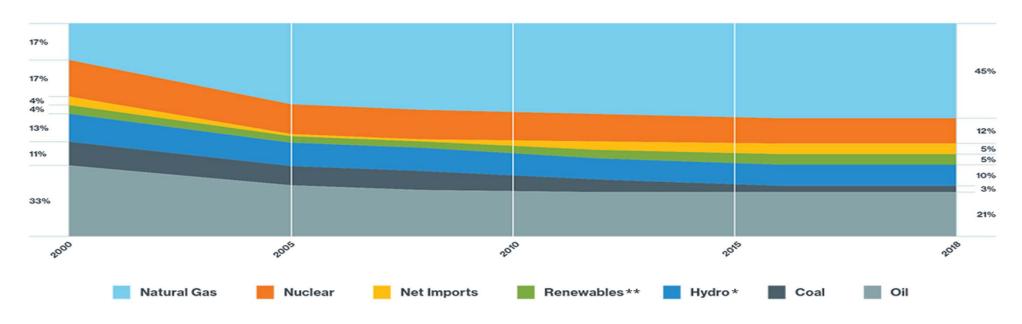
Presenter: David Dobratz PE, MBA, CEM – Eversource Energy Presented at the 2019 ACEEE National Conference on Energy Efficiency as a Resource

New England electric generation the nature of gas constraints



- The ISO-NE Generation Mix has increased its reliance on Natural Gas
 - Percent of total system capacity

Percent of Total System Capacity by Resource Type

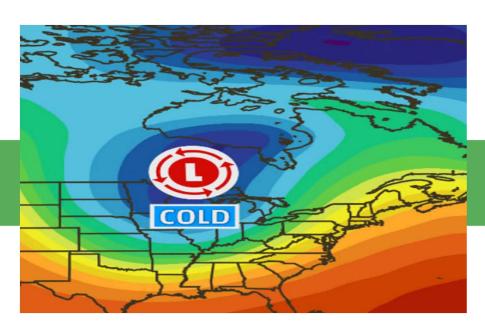


^{*}Includes pondage, run-of-river, and pumped storage.

^{**}Renewables include landfill gas, biomass, other biomass gas, wind, grid-scale solar, municipal solid waste, and miscellaneous fuels. Hydro is not included in this category primarily because the various sources that make up hydroelectric generation (i.e., conventional hydroelectric, run-of-river, pumped storage) are not universally defined as renewable in the six New England states.

Gas supply capacity constraints during extended cold weather **EVERS**URCE

- Impact of Polar Vortex dipping Southward
 - Lower than normal temperatures for extended periods
 - Firm gas supply, used for space heating, constrains generators that are typically on interruptible supply and drives gas prices higher





Market, system operator and regulators react





Capacity Augmentation – Gas Barge



ISO-NE's Winter Reliability Program



Substitute Senate Bill No. 1078

Public Act No. 15-107

An Act Concerning Affordable and Reliable Energy

Expiration of resource procurement = Increased funding & Goals



- As procurement through Act 15-107 expires, funding for traditional EE Gas Resources has increased.
 - Eversource Energy's savings goal for 2019 is 2,406,750 Annual CCF

Deeper dive into EE gas resources





- Define universe of possible gas savings measures
 - Brainstorming without regard to cost effectiveness or implementation challenges
- Narrow focus to top five categories
 - Taking into account cost effectiveness and implementation challenges
- Enhanced go to market strategy
 - Redesign of web site presence for gas efficiency offerings
 - For top 5 gas categories define/create
 - Measure descriptions
 - Listing of qualified contractors
 - Data collection forms
 - Savings calculation methodology

Top 5 gas measure categories



DCV

Heat Recovery

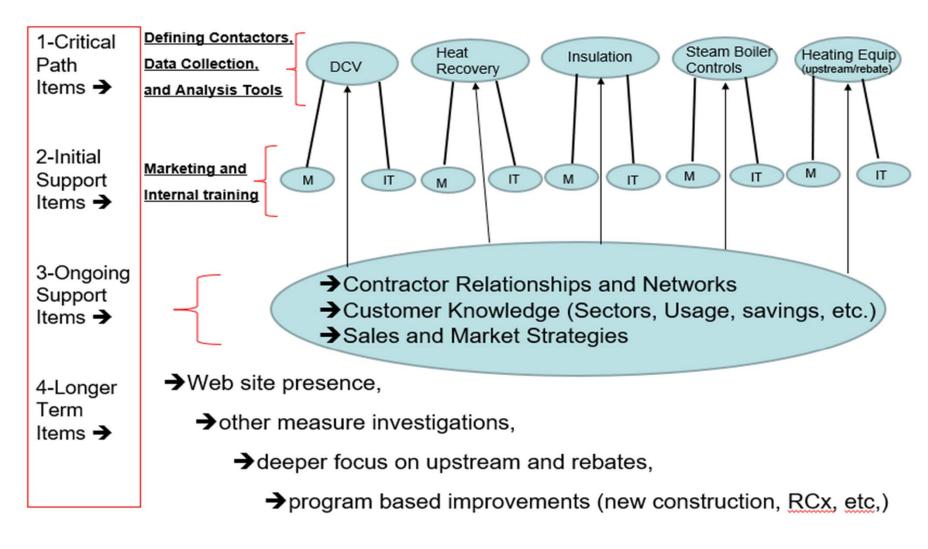
3
Insulation

Steam Boiler Controls

Heating
Equipment –
Upstream and
Rebate

Go to market strategy





Improved Outreach Through All Channels – Website as Example EVERS=URCE





Business Gas Solutions

Business Gas Solutions **□** Gas Measures Steam Heating Systems New Steam Boilers Controls on Existing Boilers O2 Trim Hydronic Systems Condensing Boilers

Energy Conscious Blueprint Energy Opportunities

Gas Energy Efficiency Offerings

Some gas savings projects are easy to define but, engaging with and Energy Efficiency Consultant, when reviewing your facility or operations, may provide insight into further options and bring to light less obvious ways to use gas Rebates more efficiently.

We have may approaches to define opportunities that are specific to your facility. In many cases our financial incentives will allow you meet more of your goals than you thought possible.

If you are ready to start saving gas and money, call 1-877- . Natural Gas Water Heating Rebate WISE-USE (877-947-3873) for more information.

Case Studies

- · Silas Dean Professional Center, Wethersfield, CT
- Two Roads Brewing Company, Stratford, CT

For simple projects or smaller projects within large

- Natural Gas Heating Equipment Rebate
- Natural Gas Infrared Heater Rebate
- Commercial Clothes Washer Rebate
- Commercial Kitchen Equipment Rebate

Upstream Option

For situations where contractors are direct installing energy efficient equipment, try our Upstream offering. Discounts are applied directly at the distributor.



Thank You!

Further questions? David.Dobratz@Eversource.com