

Scaling Up Clean Energy Solutions: Emerging Technologies & Accelerated Commercialization (ETAC) Program



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*“Advancing innovative energy solutions in ways that
improve New York’s economy and environment.”*

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nyserda
Energy. Innovation. Solutions.

Scaling Up Clean Energy Solutions

Challenges:

- Energy affordability & security (grid modernization), Economic well-being, Environment (CO₂e)
- Emerging technologies and strategies provide expanded opportunities for electric and gas energy efficiency and load management but face barriers to widespread market adoption
 - Track record of performance in the sector and in the region
 - Lack of credible, accessible & independent data on energy, savings and key performance factors
 - Customers unaware of solutions & options
 - Up-front cost and financing
 - Requires change to standard practices (e.g., construction or maintenance practices, procurement channels, etc.)
 - Regulatory or permitting challenges

Why/How ETAC?

Solution:

Scale up market adoption of commercially available, yet under-used energy-saving and load-reduction technologies or strategies:

- multi-site and high visibility demonstration projects
- performance validation, including verification of energy and non-energy benefits
- outreach to showcase project findings and results
- dedicated paths to market growth

What is an ET?

What is an emerging technology or strategy?

- Commercially available energy-efficient and/or load-reducing technologies, systems, or approaches that have significant energy saving potential but are underused in New York State
- Products are tested, licensed, code-compliant, UL-listed, meet or exceed minimum standards
- ETAC-CI: For use in commercial/institutional buildings (not process or manufacturing related, transportation or biomass)

NYSERDA ETAC Program

- \$30M budget – 2012-16; delivered by sector
- Residential, Multifamily programs
 - About \$5M each
 - First rounds closed, 2nd solicitations expected early 2015
- Commercial/Institutional
 - About \$19M
 - Open enrollment program through 2016
 - Competitive solicitation issued in July; second due date January 2015

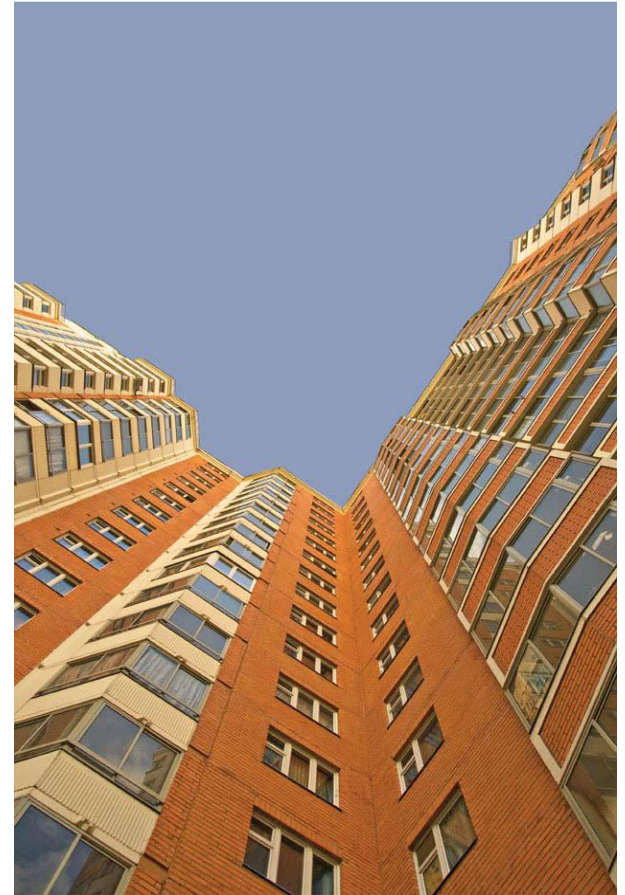
ETAC Residential

- Funds demonstrations for under-used technologies & products in the residential efficiency market.
- Engages collaborative teams of technology companies, builders, contractors, installers, design and trade professionals to conduct multi-site demonstrations.
- First-year focus on advanced solid-state lighting (20 demo sites), stakeholders help define next focus areas.



ETAC Multi-Family

- Increase energy efficiency in the multi-family sector with technologies and practices that are available but under-used
- Show multi-family building owners how implementing new technologies can offer a high return on investment
- Provide incentives for demonstrations to teams of technology companies, distributors and vendors, along with building owners and property managers
- Robust M&V and publication of success to motivate others



ETAC-Commercial/Institutional

- Energy savings &/or load management benefits
- Replicability across New York State
- Performance data from previous projects
- Applicant must identify clear path to market growth
 - Understanding of key market or regulatory obstacles & avenues to address/overcome them
 - Target market, best applications identified
 - Supply chain development planned or underway
 - Sales/marketing efforts planned or underway



ETAC Participation

- Open enrollment (PON 2689)
 - Energy Performance Validation – NYSERDA provides performance validation only (not install costs)
 - Focused Demonstrations – up to 60% of project costs, \$250,000 cap, plus performance validation
 - Must fit into targeted categories and provide independent performance data
- Competitive (PON 2844)
 - Large-scale, high-impact demonstrations
 - \$250,000 +
 - Round 2 due Jan. 28

Focused Demonstration Project

Advanced Rooftop Unit Control Retrofit



- Technology –
Transformative Wave
Technologies, Inc.
“CATALYST” unit
- Project Lead – Sure Temp
Co., Inc.
- Five sites in central NY–
30 units

Energy Performance Validation Project

Steam/Hot Water Radiator Control Retrofit



- Technology – insulated radiator enclosure with thermostatically controlled fan
- Project Lead – Radiator Labs
- Two sites, 200 units in NYC

ETAC-CI Key Benefits

Performance Validation

- Beyond M&V of energy savings to include other performance factors, non-energy considerations
- Provides independent validation of performance

Outreach

- Case studies, website, webinars, press releases, site tours and presentations provide exposure for both technology/strategy and host site
- Host sites demonstrate leadership in sustainability and have access to leading-edge energy-saving technologies

Applicant Responsibilities

- Recruit 2+ project sites as Demonstration Host Sites
- After project is approved:
 - Update/execute market analyses and paths to market growth
 - Develop and implement the project, including installation of the technology
 - Support performance validation process; provide access to relevant data, staff, and equipment
 - Provide semi-annual and final project performance reports to share findings
 - Perform outreach activities such as webinars, site tours, and case studies

ETAC-CI Website

A developing resource, see: nyserderda.ny.gov/etac-ci

- Building owner matching process
- Project briefs for ongoing projects
- Case studies at project close
- Primers on emerging topics, includes:
 - NZE Buildings
 - Advanced Thermostats
 - Energy Storage
- Links to other ET programs and resources

Stay tuned!

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