



Docket No. QO22080540

**NEW JERSEY ENERGY STORAGE INCENTIVE PROGRAM (NJSIP)
New Jersey Board of Public Utilities (BPU)**

Trane US Inc., RESPONSE TO NJ SIP STRAW RFI

Trane hereby submits this response to Board's SIP Straw Proposal Request for Information.

Trane is a global organization with a business structure that emphasizes local services to customers in every market. We have 170 commercial sales offices in major metropolitan areas throughout the U.S. and Canada.

In 1995, we broadened our traditional presence in chillers and other HVAC systems that keep building occupants comfortable to provide a full range of energy services. As a leading provider of energy services and turnkey solutions, Trane possesses multiple accreditations and certifications from premier energy organizations such as NAESCO, ASHRAE, the Sustainable Buildings Industry Council, and the U.S. Green Building Council (USGBC). Trane also is one of the qualified U.S. Department of Energy ESCOs.

Trane's extensive list of in-house services covers preliminary audits, investment grade audits, construction management, training, and measurement & verification to ensure that guaranteed energy savings are achieved. Trane's NY/NJ offices- in Pine Brook, NJ and Manhattan, NY - are staffed with industry experts and experienced professionals. Each local office can call upon a wealth of subject matter experts in fields ranging from Solar PV design, Cogeneration Systems, New Central Plants, Utility Demand Response Programs, and a comprehensive list of 21st Century engineering solutions. Our NY/NJ offices freely share resources whenever required to audit, design, implement, or monitor the results of energy efficiency improvements. Our local offices have dedicated professionals in each of the following areas:

- Energy Contracting Solutions – Total Comprehensive Solutions, including Energy Savings Performance Contracts and Large Design-Build turnkey installation projects.
- Controls – state-of-the-art building automation systems. Our local offices are complete with dedicated Controls Demonstration Centers for customer education and training.
- Service – Trane service technicians are skilled in maintaining and repairing not only Trane equipment, but HVAC systems from nearly every manufacturer in the industry.
- Training – Fully equipped training facilities, offering seminars and training on industry issues and technical information critical to your operation.



- Trane Equipment – Energy-efficient, environmentally friendly HVAC equipment for both comfort and process applications.
- Parts Supply – Full line of Trane parts, non-Trane parts, maintenance supplies, safety equipment, refrigeration, and maintenance/service tools warehoused locally.

Trane NYNJ has vast experience in Thermal Energy Storage System (TESS) design and implementation. We worked closely with ConEdison in the implementation of TESS to reduce peak demand loads for the NY city electric grid. We envision to actively participate and further NJBPU goal towards decarbonization and grid electrification through thermal energy storage systems.

TESS has been recognized widely as a proven technology that can work together with renewable energy and Battery Energy Storage Systems, with the common goal of achieving grid electrification. Our comments and response below relate to incentivizing TESS systems under the Straw Proposal so adequate attention is provided to TESS. Below, we provide our response to questions with TESS in mind:

1.1 What are the advantages and disadvantages of utility control versus non-utility control of energy storage systems?

Thermal Energy Storage systems are best controlled by the owner operator. TESS cannot respond to utility signals in the same fashion as Battery Energy Storage System (BESS). Further, owner operator has to keep the building load profile and occupant comfort and building operation in mind. Hence, it is best to have the owner operator control the TESS system, and be able to respond utility signals through the Capacity or Reserves market.

3.3 Should Fixed Incentives be assignable to an aggregator? Why or why not?

Fixed and Performance based incentives should be assignable to the Owner or Contractor. The fixed incentives would help installation of new TESS where, otherwise, due to cost considerations, they may get completely overlooked.

3.6 Is there a different methodology that can be used to determine Performance-based Incentives, such as a Peak Demand Reduction program?

TESS systems have the benefit of Permanent Demand Reduction; the Performance based incentive should indeed be based on the peak demand reduction in the ICAP market.

3.7 If a Peak Demand Reduction program were to be developed, how should it be structured? What other states have similar programs that New Jersey should use as a benchmark?

NYSEERDA offered a Peak Demand Load Reduction incentive for TESS based on \$/kW. Through Con Edison's Demand Management Program, an incentive of \$1000-2500/kW was offered for peak demand reduction during a 4-hour period when grid relief was most needed.

3.11 How should incentives be structured for thermal storage systems?



Incentives are best structured as \$/kW based on peak demand reduction. Performance based incentives can be structured through demand response as a permanent load reduction in the PJM market.