



State of Connecticut
Department of Administrative Services
Request for Qualifications & Proposals
Project/Solicitation # 12PSX0153

Qualitative Criteria Information

September 14, 2012

Presented by:
Trane
716 Brook Street
Suite 130
Rocky Hill, CT 06067

TABLE OF CONTENTS

1.	Overview of Approach to Energy Savings Performance Contracting. ...	1
2.	Project History.	7
	2.1. Related Experience.	7
	2.2. Market Sector Involvement.	14
	2.3. Project List.	19
	2.4. Project References.	20
3.	Qualifications.	35
	3.1. History and Focus of Company.	35
	3.2. Financial Soundness and Stability of the Company.	42
3.3.	Connecticut licensed professional engineer.	49
	3.4. Industry accreditations.	49
	3.5. General scope of services.	54
4.	Technical Approach.	60
	4.1. Deep energy retrofits.	60
	4.2. Investment-grade energy audit (IGEA).	61
	4.3. Standards of comfort.	66
	4.4. Baseline calculation methodology.	66
	4.5. Baseline adjustment.	67
	4.6. Energy Star Portfolio Manager.	67
	4.7. Measurement and verification (M&V).	67
	4.8. Commissioning.	71
5.	Management Staffing.	74
	5.1. Project management and coordination.	74
	5.2. Personnel and staffing.	77
6.	Cost and Pricing.	80
	6.1. Provide your company’s proposed costs, markups, margins, and fees by completing ONLY SECTION I OF Exhibit D to the contract and submitting it with your proposal. Proposers must not alter the form of the charts in SECTION I of Exhibit D to the Contract, however, proposers may add additional information, such as schedules, to illustrate proposed maximum markups and fees for pre-defined categories for performing work. Markups on fees are not allowable under the ESPCP.	80
	6.2. Proposers shall commit to adhere to their Final Exhibit D throughout all project phases. When considering QESPs for a project, a Department may choose to accept the QESP’s Final	

***Exhibit D without further negotiation. Alternatively, the Department may directly negotiate with QESP for reductions as dictated by individual facility or project requirements. QESP may also propose lower IGEA costs, markups, and fees depending upon individual project considerations or their own internal business approach.*..... 80**

7. ESPCP Participation and Compliance.80

***7.1. Marketing and promotion of ESPCP.* 80**

***7.2. Compliance with ESPCP requirements.*..... 80**

8. Appendixes.82

Appendix A – Ingersoll Rand 2011 Annual Report.82

Appendix B – Ingersoll Rand 2011 SEC Form 10-K.82

Appendix C – Prequalification Letter from Licensed Surety Travelers.....82

Appendix D – Sample IGEA, Burroughs & Saden Library.82

<p>This document constitutes confidential and proprietary information of Trane. Any use, disclosure, reproduction or transmission of such information, without the express written consent of Trane Comfort Solutions Inc. is strictly prohibited</p>



1. Overview of Approach to Energy Savings Performance Contracting.

September 14, 2012

Mr. Paul Greco
DAS Contract Specialist
State of Connecticut, Department of Administrative Services
165 Capital Avenue, 5th Floor South
Hartford, CT 06106-1659

Re: Overview of Trane's Approach to Energy Savings Performance Contracting

Dear Mr. Greco:

Thank you for the opportunity to introduce our highly experienced local comprehensive energy services team for your consideration. As a wholly owned subsidiary of Ingersoll Rand, we bring the extensive resources and financial strength of our \$14 billion dollar organization to ensure optimal results for your energy-savings performance contract.

Our Connecticut area operation is headquartered in Rocky Hill, CT, where we employ over 75 professionals – all of whom work every day to bring a customized range of design, installation, energy savings, training, maintenance, commissioning, service repair and parts to over 2,000 active customers throughout CT. We serve all markets in CT including, higher education, healthcare, industrial, K-12 education, municipalities, State of CT agencies, commercial real-estate, lodging and pharmaceutical.

Trane is both a top-tier, industry leading ESCO (*Described as one of the four largest energy services providers in the world by The Clinton Climate Initiative*) and the world's leading manufacturer of high quality HVAC equipment and open protocol Building Automation Systems (Controls), which we apply to create and maintain High Performance Buildings worldwide.

Simply stated, in addition to our proven credentials as an industry leading ESCO (*independent approach, local CT experience, open transparent pricing, competitive bids, comprehensive scope such as window replacements, renewable energy technologies, high efficiency lighting, building envelope, etc.*), we also have the unique ability to provide significant cost advantages for HVAC equipment and integrated controls - which are the largest and most impactful components of most State and municipal / K-12 energy services programs. Any Trane manufactured items are passed thru directly from the factory to our client with no additional mark-up as would be applied by competing QESP's.

The type of improvements anticipated for the State of CT and its Municipalities align directly with Trane's core expertise and value proposition. Accordingly, Trane is also uniquely qualified to provide the most comprehensive, cost effective and successful program for the State of CT. We will apply our proven and competitive development process to work closely with key representatives to prioritize facilities and develop a full range of possible energy efficiency measures. Throughout the detailed audit process, all essential components of project design, pricing, installation schedule and energy savings will be shared in an open and transparent manner to facilitate development of the optimal solution.

Moreover, our local CT clients have commented enthusiastically about our proven track record of completing such complex projects on a fast track – critical path, with no interruption to ongoing operations.

"...We are seeing a 20-25% reduction in kWh as a result of the energy project. We are very pleased with the results and Trane's performance of the project. You have exceeded our expectations. Thank you all for helping to make the project a success...very much appreciated!"

– Tony Femc, Manager, Facilities Engineering, Henkel Adhesive Technologies, One Henkel Way, Rocky Hill, CT

Company Strengths

Known for innovation, Trane has manufactured reliable air conditioning equipment since 1913. Our company is the leading single-source provider of equipment, controls, installation, training, parts, and support. We offer a complete line of highly efficient, state-of-the-art heating and cooling equipment for commercial and residential use.

Trane is also a leading provider of performance contracting solutions and has multiple accreditations and pre-qualifications from premier energy organizations such as: NAESCO, ASHRAE, DOE, EPA, Clinton Climate Initiative, Sustainable Buildings Industry Council, and the U.S. Green Building Council. These accreditations and pre-qualifications are relevant and important to the work proposed in this RFP because it demonstrates our commitment and expertise to the performance contracting process and will provide the State of Connecticut a company with demonstrated competency and accepted industry practices proven to deliver successful projects.



-  *Largest HVAC, Energy & Comfort Solutions Company in the U.S.*
-  *40-50% Market Share for Commercial HVAC systems*
-  *Leading Provider of Comfort Control Systems to New Construction Markets*
-  *Approx. \$1 Billion in Annual Contracting*
-  *>\$760 Million in Guaranteed Energy Savings Performance Contracts (Last 5 years)*
-  *Annual Guarantee Portfolio >\$150 Million*
-  *Over \$300 Million in Energy Savings Generated for Customers*
-  *Leading Service Organization - > 3,000 Technicians*
-  *Trane is an accredited Energy Service Company (ESCO) through the National Association of Energy Service Companies*
-  *Core competencies in all aspects of Energy Services contracting assures Trane's standard contracting business practices meet or exceed the high quality standards established by the industry's most recognized leader in the development of quality standards.*

Areas of Expertise

From performance contracting to state of the art equipment, Trane brings together the most complete set of business solutions available today. The Comprehensive Solutions business or ESCO services arm of Trane has been involved in the Performance Contracting business for 18 years. Trane's Performance Contracting services, including total facility systems and guaranteed energy efficiency upgrades, have been performed in hundreds of buildings throughout North America. Although Trane's organization spans the globe, we maintain a strong local presence in Connecticut through our Rocky Hill location. Our Connecticut business has existed since 1947 and has hundreds of current/active customers (many of them are potential State of Connecticut performance contracting participants). Our local office has fully staffed departments dedicated to meeting our customers' needs in each of the following areas of expertise:

-  **PACT™ - Performance Agreement for Comfort from Trane – Performance Contracting**

- ✔ Trane Equipment: Energy efficient, environmentally friendly HVAC equipment for both comfort and process applications;
- ✔ Contracting Solutions: Total comprehensive system solutions including system application engineering, technical energy auditing, engineering design, installation, warranty, monitoring and verification, service and financing assistance;
- ✔ Controls: State-of-the-art Facility Management and Control Systems (FMCS) also referred to as Building Automation Systems (BAS);
- ✔ Service: Total service solutions for our existing building owners including customized maintenance programs and Extended Service Warranty Programs;
- ✔ Parts: Full line of Trane parts, non-Trane parts, maintenance supplies, safety equipment and maintenance/service tools warehoused locally;
- ✔ Training: Fully equipped local Training Center can easily accommodate up to 40 people. Self-study and customized training programs are also available.
- ✔ Environment: A local member of the USGBC with LEED certified associates in-house.

Trane's in-house project team consists of full-time employees that are available to devote up to 100% of their time as required throughout the life of the State of Connecticut projects. **Connecticut Trane has five segments in place to provide quality service: (1) Performance Contracting (2) Existing Building Services (3) New Equipment Sales (4) Building Automation & Controls (5) Parts.**

General Approach to Performance Contracting

Trane has been in the energy performance contracting business since 1994. In that time, our company has provided Performance Contracting (PC) services, including total facility systems and guaranteed energy efficiency upgrades, in hundreds of buildings throughout North America. Over the past 5 years Trane has successfully performed more than \$760M in guaranteed energy performance contracts, and approximately \$1Billion annually in successful turnkey contracting projects.



Trane's general approach to performance contracting is to perform an infrastructure assessment or Investment Grade Audit (IGA) to evaluate ways to achieve our customer's unique goals. The time spent during the assessment allows us to identify improvement opportunities to the existing facilities and systems that provide long term financial and facility benefits to the client. The recommendations that are included in the assessment

include fixed real pricing which means we can go to contract in a short amount of time. The recommendations are listed to provide evidence of Trane's capabilities, Trane's approach and our understanding of the customer's challenges and objectives. We are confident the selected recommendations will result in improved building performance and reduced operating costs for the customer

The assessment includes on-site walk-through's of all of the clients identified projects/buildings, analysis of blue prints, plans, specifications, operations and maintenance manuals, analysis of the past two to three years of utility bills, and interviews with Administration, Operations and Maintenance staff, and other personnel selected by the customer. Through the assessment Trane investigates Energy Efficiency Measures (EEMs) and develops a funding plan to implement the EEMs selected by the customer.

The Trane assessment team typically consists of project developers, and energy engineers, many of which are professionally licensed engineers. The task is to devise a scope of work that will meet the customer's expectations, many times that means upgrading identified building infra-structures to current day standards. Although LEED EB certification is not always planned as part the project, the

principles are incorporated in each solution. This makes applying for LEED EB certification available if the customer elects to pursue it.



The energy engineers also create, when applicable, *Trane Trace 700* energy analysis models for selected buildings. Each model provides an hourly analysis of energy for each building over an entire year. Where modeling is not appropriate, savings are calculated using spreadsheet methods. This approach provides several distinct advantages to the advancement and implementation of a project.

- The *Trane Trace 700* energy analysis modeling is a proven industry standard used to determine hourly energy use by a building. The results are accurate.
- Consideration for an endless number of FIOs.
- All the EEMs for a building are inter-related e.g., reducing the lighting wattage, decreases the summer air conditioning load, but increases the winter heating load for the building; changing the air conditioning system on top of the lighting would generate more savings, but not as much if the lighting were not considered. The *Trace 700* modeling provides comprehensive and accurate energy saving EEMs.
- Trane's knowledge of each facility allows the customer to move forward quickly. The sooner an IGA can be completed the sooner construction can begin and the sooner improved performance and energy savings can be realized by the customer. In some cases EEMs can be realized in a few months after the IGA is completed.

Careful consideration is always given to incorporate the client's goals and building needs. Trane's goal is to provide a project that meets and addresses each of those needs. Items not included in the overall project are clearly identified. In some cases, two or more alternatives may be considered to address each selected building need. In those cases, the project that best meets the customer's goals, whether they are capital improvement oriented, improved cash flow driven, etc., is chosen.

A comprehensive philosophy is always used during the assessment. Life cycle costs, future growth plans for the customer's facilities, increased utility usage, etc., are all taken into consideration. This approach looks at all the variables and provides the customer with options.

Once the ideas/projects are defined, specific detailed scopes are written for each project to outline the opportunity for contractor consideration and pricing. Projects presented are typically categorized as campus-wide improvements, meaning they apply to a majority of the client's buildings, or as individual improvements. Subcontractors are engaged for real pricing. This approach allows for construction pricing not budget pricing. Which means work can start almost immediately after the pricing is presented, which helps bring the project in on time and within budget.

Typical Project Phases

We have included additional detail on each of the phases Trane performs during a project

Project Development

We shall jointly establish the desired goals and outcomes of the performance based contract and the team will be responsible for defining both the technical and financial objectives for the contract. The project definition phase will typically address the following areas for development:

- Define facilities/buildings to be considered in the program
- Define total infrastructure items including existing buildings, renovations, non-building applications and water conservation, programs, renewable energy, cogeneration, geo-exchange, and biomass projects
- Collect utility cost data
- Collect facility operating cost data
- Utility analysis of existing conditions

- Energy performance benchmarking, EUI of facilities, and other software programs (typically using Trane Trace 700) while following the guidelines and protocol in the IPMVP, Vol. 1, April 2007.

Energy Auditing

The initial phase of the facilities audit involves determining the energy, water, wastewater, operational, maintenance and other cost savings potential. This preliminary audit serves to define the savings potential of a project and to estimate the costs to perform the recommended savings measures. The information developed during this phase is designed to provide the data needed to make an informed decision concerning whether an energy conservation measure has the potential to be researched further in the more advanced phases of a project audit.

Performance/Savings Guarantee

The Trane PACT™ energy savings Guarantee is clear and straightforward. If your actual energy savings are less than Trane’s guaranteed energy savings, we will pay the difference. We can make this promise because of our combined expertise in products, service, and performance contracting. Trane professionals can manage performance contracting projects of any scale. Because of our deep knowledge of building systems, our energy savings forecasts have been extremely accurate.

Subject: PACTSM Project Widefield School District, #3
 Trane Project No.: V6-03916
 Guarantee - PACTSM Reconciliation



The Trane Company is pleased to inform you that the PACT Agreement for Widefield School District, #3 saved \$188,646 during the 6th Year, period January 1, 2006 through December 31, 2006. The annual performance contract targeted savings is \$162,000.

The following table summarizes the above information.

Description	Predicted	Actual	Variance
kWh	1,932,017	2,191,817	259,800
kW	5,240	6,063	823
CCF	125,569	123,189	-2,380

Financing

Trane works with its customers to facilitate third-party performance contracting project funding, bringing a history of financial stability and success in the process. Similar to other ESCOs, Trane does not finance projects internally—but our Comprehensive Solutions team facilitates a process toward gaining funding that is transparent, seamless, timely and cost-effective. Trane has successfully used this process to assist our customers for more than a decade.

Construction

The system design team will consist of Trane local and national engineers and resources and outside registered consulting engineers—working together closely and cross-validating design parameters to ensure the successful design-development, implementation and post validation of the project. Trane employs more than 750 degreed engineers, over 500 LEED certified individuals and over 100 Certified Energy Managers (CEM) in its national network. Final construction documents will be reviewed and approved by a registered professional engineer (internally or by an independent third party engineer team) duly licensed to practice in Connecticut.



Commissioning

To validate results for your purposes and our own, Trane methodically measures and tracks building performance. This means commissioning all buildings covered under a performance contracting agreement to check that their systems are working properly. It also means regularly monitoring and adjusting building performance in order to improve facility management, reduce maintenance problems, and identify ways to improve future buildings. Trane factory-authorized service technicians use expertise and advanced technologies to ensure that your building systems deliver many years of effective, efficient performance.

Measurement and Verification

Trane complies with the International Performance Measurement & Verification Protocol (IPMVP, Vol.1, April 2007) to validate your ESPC guarantee. Our accreditation by the National Association of



Energy Service Companies (NAESCO) further shows our adherence to industry best practices. This approach offers you several advantages:

- **Confidence.** The IPMVP ensures technical rigor, so that you and we are confident in the value of information about each performance contract.
- **Accuracy.** We are secure in our projections for energy and dollar savings, which translates to lower risk for you, and more available money for energy conservation measures (ECMs).
- **Dependability.** We have the resources needed for thorough M&V, and a history of achievements that guide the Trane process. That process stands with us behind your guarantee.

Since Trane entered the performance contracting business, we have guaranteed more than \$125 million in energy savings, and have reconciled more than \$100 million of those savings.

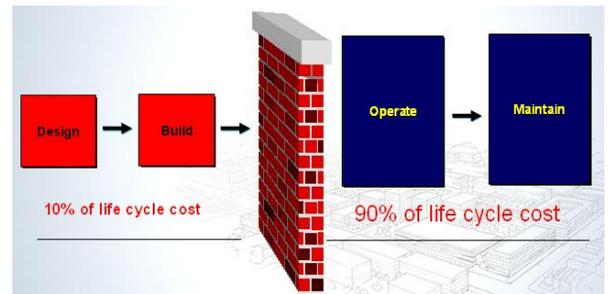
Client Staff/Occupant Training

We provide initial training for new and retrofitted systems during installation, and ongoing training customized for systems and equipment scheduled in the maintenance contract. This includes fundamental system orientation for your facility staff and setting up operating logs for critical reference during the first year of operation.

Post-construction Maintenance Support

Once project construction is complete, Trane will provide ongoing support, maintenance, monitoring, and management services, together called a Performance Management Program. This program can include any combination of the following activities and services:

- **Facility Maintenance.** Maintenance and repair services, assisting in identification and evaluation of outsourced and internal maintenance programs, and as-needed repairs and retrofits.
- **Facility Operations Consulting.** Recommendations on how to optimally operate the facilities, identifying and solving facility problems, recommendations on future facility renovations and expansions, and assisting in identifying energy-efficient options.
- **Performance Monitoring.** Utility bill analysis, monitoring of facilities via building automation, verification of building comfort levels, and identifying operational and equipment problems.
- **Performance Reporting.** Guarantee status and reconciliation reporting, and presentations of results to customer groups.



Thank you for the opportunity to introduce our highly experienced local team and unique value proposition for your consideration. We are confident in our ability to help the State of Connecticut and Municipalities develop and implement the most comprehensive, cost effective and successful energy services program. We look forward to meeting with you during the interview process to follow.

Sincerely,

David T. Ford
Comprehensive Solutions Account Executive

Kevin C. Rice
Comprehensive Solutions Account Executive

2. Project History.

2.1. **Related Experience.**

2.1.1. Design, engineering, installation, maintenance and repairs associated with energy-savings performance contracts.

In-House Services

Trane provides turnkey comfort, environmental control, construction services, facility management, service, maintenance and energy savings measures across all building types. Trane has been the building solutions provider of choice for state and municipal government facilities, highly secured Federal governmental / defense facilities, industrial facilities, pharmaceuticals, healthcare, manufacturing, education, hotels and lodging.

In Connecticut, Trane's in-house service offerings include:

- Comprehensive Solutions - Energy Performance Contracting
- Guaranteed Savings – Using IPMVP Volume, April, 2007.
- Energy efficient Heating Ventilating and Air Conditioning Systems
- Renewable technologies
- Equipment and Controls Services
- Safety/Security (Through Schlage, sister company) by Ingersoll-Rand
- HVAC Parts Support
- Advanced Building Controls
- Financing Solutions (Typically Provided By Third Party Lending Institutions)
- Equipment Rentals

2.1.2. Conversions to a different energy or fuel source, associated with a comprehensive energy efficiency retrofit.

Since the rise in oil prices over the last several years and the reduction in natural gas prices, conversion to natural gas for heating has been a very attractive energy efficiency measure. In addition to reducing energy costs, we are also offering the owner a cleaner burning fuel source for heating, which will lower the cost of maintenance over the life cycle. Another advantage of a fuel source conversion is that many of the older oil-fired boilers are over-sized for the building load. Therefore, they operate at part load, which is less efficient. By accurately calculating a building's current heat loss, we "right size" size the new boiler for the current load and further save on fuel costs.

A few examples of projects in Connecticut that we performed a fuel source conversion are as follows:

Project Name	Location	Annual Savings (\$)	Description
733 Summer Street	Stamford, CT	\$9,991	Replaced an existing 4.7 MBH oil fired boiler with two 1.5 MBH natural gas condensing boilers with up to a 94% thermal efficiency
Wesleyan Phase 4	Middletown, CT	\$184,819	We upgraded/replaced old inefficient oil fired burners and boilers with new high efficiency natural gas burners/boilers in (27) locations throughout the campus
Wesleyan Phase 5	Middletown, CT	\$100,476	We are in the process of upgrading/replacing old inefficient oil fired burners and boilers with new high efficiency natural gas burners/boilers in (19) locations throughout the campus
Archdiocese of Hartford	Hartford, CT	\$52,326	Replaced 300 HP oil fired boiler with a new high efficiency natural gas fired boiler in their central plant

2.1.3. Post-installation project monitoring, data collection and reporting of savings.

We have a dedicated M&V Energy Engineer on staff whose responsibility is for post-installation project monitoring, data collection and the reporting of actual savings related to our guaranteed performance contract projects. Additionally, as a national and global energy services provider, Trane has resources that extend beyond our local district in Connecticut and New York to further assist and provide world class service to ensure the sustainability of our performance contracts.

To illustrate our service, for our project references, Trane has used the point source method for measurement and verification. The Point Source guarantee does not rely on the presence of meters. As the name implies, energy is measured at the point, directly where it is consumed. For instance, the wattage consumption of a light bulb is measured directly at the light bulb, or branch circuit serving only lighting. This method assures absolute accuracy since the wattage measurement is that of only the light bulb, or lighting system.

2.1.4. Overall project management and qualifications.

Trane will apply its time-tested, proven project management system and process to the management of subcontracted project activities - using Trane's highly successful Performance Agreement for Comfort from Trane (PACTTM) process. The PACT process utilizes a stepwise approach to work in partnership with the customer to define and refine the customer's needs and requirements, over the course and dynamics of the performance contracting project, and to support the customer through a tailored post-implementation support program. The process begins prior to project execution with validation of customer expectations and finishes with a methodical close-out of each aspect of the project. The six sub-processes are as follows:

- **Validation:** Verification of project and contract requirements
- **Administration:** The systematic control of project documentation and communication
- **Planning:** Development of a detailed execution plan and control of project resources
- **Execution:** Installation and checkout of the proposed scope of work
- **Close-Out:** Continuous focus on customer acceptance of completed improvements
- **Change Management:** We stand behind our scope of work and have a "no change order" philosophy unless a scope of work change or addition is directed by the owner. In the event of an owner directed change order, we have a systematic process for handling of all potential changes and deviations

Trane will conduct weekly meetings / progress reviews with its subcontractors to ensure that the project is being executed in a timely, safe, quality and cost effective manner. Daily activities are logged and tracked via the "Trane Desktop" tools suite to document project activities including all key subcontracting activities, corrective actions and resolution status.

Any subcontractors hired to install non-Trane products or equipment will be expected to meet Trane construction standards & competitive process requirements. Trane assumes full responsibility for the success of the project.

Additional Best Value through Project Management

The Trane project management process is facilitated by a set of tools that we call the "Trane Desktop" suite of software. The "best-of-breed" software technology used by Trane provides an integrated end-

to-end solution to model, validate and successfully close the performance contracting project. As a result, the Trane Desktop is a comprehensive, integrated project management tool that includes: *Trane Estimator*, *PeopleSoft® Financial Spreadsheet*, and the *Microsoft® Office* suite of software including *Microsoft Project Manager*.

Trane Estimator will assist the Trane project manager in developing a detailed estimate of the various facility improvement opportunities (FIOs). When a project is accepted, *Trane Estimator* transfers the appropriate information to the project – construction scheduling tool, the control tool, and the financial system, thereby ensuring the ongoing continuity of the project. The Trane Desktop tools are shared across both local and national team resources.

The document control software facilitates systematic control and consistency of project documentation and communication. The Trane team logs all correspondence related to the client's PC project, maintaining a complete, accurate, up-to-date record of all transactions and communications (informational, financial, directive, or other) throughout the project. Such painstaking document control insures accuracy, pro-actively identifies potential "stall" points, and maximizes efficiencies when working with the subcontracting team members involved in your project. We also use the software's capabilities to monitor our own responsiveness and turnaround times. Through careful scrutiny of our own processes, and their potential effect on other contractors on the project, we can increase your satisfaction with our performance.

Your Trane project manager will use Microsoft Project Manager to schedule and plan all of the activities that we perform. These tools let us easily merge Trane activities, along with similar plans by the other contractors, into a composite plan for the project that helps to avoid scheduling conflicts. We also provide copies of the plan and schedules to the customer's representatives and to our teammates and subcontractors for their use and feedback.

Our business-and-financial-system software allows your Trane project manager to easily access the fiscal data for the project. It tracks committed and actual project costs to date, along with payable and receivable information. This information that is as critical to each member of the project team, as it is to the project manager. Attentive, systematic control of the financial aspects of the project encourages every team member and subcontractor to perform as expected, when expected.

Armed with the Trane Desktop and our six-part Project Management Process described herein, Trane can systematically and methodically implement all components of the Facility Owner's performance contracting project. Together, Trane's experience, premier tools, and a proven process methodology for fulfillment will assure that the implemented improvements are completed as specified, on time, and on budget.

2.1.5. Securing long-term financing.

Trane is not a direct lender of financing. We facilitate 3rd party lending for our customers. We have a Trane leasing division that has developed many relationships with major banking institutions and investors that lead to the lowest interest rate financing available. With a solid reputation for performance and delivering on our promises, the lenders find that working with Trane and the customer is a wise investment for them to take on the risk of a long term performance contract.

By being a 3rd party financing partner, Trane does not make any money on the financing arrangements which further helps keep interests rates low. We support the financing application by sharing our financial pro-forma for the project along with the IGEA report.

As an example, we performed a \$3.1M turnkey energy services project for Griffin Hospital in 2008-2009. Griffin Hospital's CFO, James Moylan turned to Trane to help secure financing for the project. Trane brought in one of our lending partners, Bank of America, who came to the table with Trane and

together we helped secure an arrangement that met the goals of Griffin and allowed them to move forward with the project.

2.1.6. Financial stability.

The long-term financial health of the contractor or ESCO partner is vital to the success of performance contracting. In this regard, Trane as a business of Ingersoll Rand, brings the financial strength and stability of our \$14b global organization to back our ongoing operations and guarantees, and is an excellent choice to deliver the best long-term solutions for facilities served through this contract.

As an accredited ESCO and a major provider of Performance Contracting services, Trane is poised for growth. We have the resources and knowledge required to identify, design and install new building systems and guarantee reductions in energy and operational costs. Our size, profitability and favorable financial profile allow us to facilitate third-party financing for a growing profile of ESCO-related services. And our track record is a long list of success stories.

As our corporate history and financial summaries show, Trane is very sound financially. It has the resources and expertise needed to provide and guarantee effective energy conservation projects. These qualities help demonstrate why Trane is the best choice for delivering comprehensive energy solutions for your facilities.

By working with Trane, the number-one provider of commercial comfort systems in the world, your organization will benefit from not only a robust financial partner, but by our expertise as a leading provider of building services. Our unique combination of a large operational base, expertise in Performance Contracting, and extensive knowledge of building systems, equipment and controls make Trane an excellent partner.

2.1.7. Project of similar size and scope.

Please refer to the following sections 2.3 Project list and 2.4 Project References, which list and detail projects of similar size and scope related to the intent of this RFQ.

2.1.8. In-state projects and Connecticut-based subcontractors.

As you will see from the table below, our local Trane office has performed many CT energy services contracts in the State of CT over the last 5 years. All of our subcontractors are CT based companies and we consider them partners in developing and implementing a project. With their extensive field experience, we take advantage of their knowledge and bring them into the process early during the preliminary audit phase. Our CT based subcontractors are design-build specialists who do not rely on a set of plans and specifications to be able to develop a solution. We are a team from the start and often with everyone involved from the beginning with the same goal in mind, we come up with the cost effective solution that will save the most energy.



Connecticut Energy Services Contracting History

#	Client	Project Name	Project Value	Annual Savings	Simple Payback	Contract Term	Year Signed
1	Konover	Konover - 135 South Road	\$ 269,207	\$ 50,250	5.4	1 year	2006
2	Summer High Realty	777 Summer Street	\$ 341,000	\$ 69,468	4.9	1 year	2006
3	Northwest Catholic High School	Northwest Catholic High School Energy Improvements	\$ 395,000	\$ 78,273	5.0	1 year	2007
4	Northeast Utilities	Northeast Utilities Chiller Replacement	\$ 241,000	\$ 40,000	6.0	1 year	2007
5	Monsignor Bojnowski Manor	Monsignor Bojnowski Manor	\$ 407,887	\$ 61,026	6.7	1 year	2008
6	Middlesex Hospital	Middlesex Hospital Outpatient Clinic Energy Improvements	\$ 346,274	\$ 94,698	3.7	2 year	2007
7	Hallmark Cards	Hallmark Cards	\$ 347,475	\$ 63,641	5.5	1 year	2007
8	Waveny Care Center	Waveny Care Center	\$ 197,986	\$ 21,591	9.2	1 year	2008
9	Wesleyan University	Wesleyan University - Phase 1	\$ 1,891,500	\$ 236,157	8.0	2 year	2007
10	Stamford Town Center	Stamford Town Center - Chiller	\$ 1,018,342	\$ 113,890	8.9	1 year	2007
11	Greenwich Hospital	Greenwich Hospital - Co-gen Microturbine	\$ 620,000	\$ 110,274	5.6	2 year	2007
12	CT Culinary Institute	CT Culinary Institute - Chiller Replacement	\$ 331,000	\$ 39,295	8.4	1 year	2008
13	Griffin Hospital	Griffin Hospital - ER Energy Project	\$ 3,150,000	\$ 277,709	11.3	2 year	2007
14	LAN Executive Office Building	LAN Energy Efficiency Project	\$ 592,382	\$ 56,157	10.5	1 year	2008
15	Reit Management	100 Northfield Energy Efficiency Project	\$ 638,452	\$ 100,832	6.3	1 year	2008
16	Sava Senior Care	Bride Brook Health & Rehabilitation	\$ 612,189	\$ 115,438	5.3	1 year	2008
17	Sava Senior Care	Pendleton Health & Rehabilitation	\$ 466,298	\$ 97,361	4.8	1 year	2008
18	Northwest YMCA	Northwest YMCA Energy Improvements	\$ 213,765	\$ 54,016	4.0	1 year	2008
19	Beardsley Zoo	Beardsley Zoo Energy Improvements	\$ 280,178	\$ 36,086	7.8	1 year	2008
20	Reit Management	185 Plains Road Energy Efficiency Project	\$ 1,151,090	\$ 161,415	7.1	1 year	2009
21	Wesleyan University	Wesleyan University - Phase 2	\$ 4,390,590	\$ 499,204	8.8	3 year	2009
22	CT Children's Medical Center	CT Children's Medical Center Energy Project	\$ 887,640	\$ 78,520	11.3	1 year	2010
23	Subway	Subway Headquarters Energy Improvements	\$ 349,300	\$ 38,152	9.2	1 year	2010
24	Summer High Realty	733 Summer Street	\$ 445,938	\$ 94,733	4.7	1 year	2010
25	Henkel	Henkel Energy Efficiency Project	\$ 1,117,472	\$ 205,823	5.4	1 year	2011
26	Connecticut College	Connecticut College	\$ 552,800	\$ 44,036	12.6	1 year	2010
27	Wesleyan University	Wesleyan University-Phase 3	\$ 3,081,753	\$ 376,977	8.2	2 year	2011
28	Reit Management	50 Barnes Park North	\$ 858,272	\$ 61,303	14.0	1 year	2011
29	Northwest YMCA	Winsted YMCA Energy Improvements	\$ 310,000	\$ 57,000	5.4	1 year	2011
30	Wesleyan University	Wesleyan University - Phase 4	\$ 3,425,431	\$ 405,699	8.4	2 year	2012
	Totals		\$ 28,930,221	\$ 3,739,025	7.74		

2.1.9. United States Department of Energy programs.

Trane and U.S. Department of Energy

Trane is currently a U.S. Department of Energy (DOE) qualified Energy Service Company (ESCO), and is actively engaged in proposal work in conjunction with the DOE. The company is in the performance period for Super ESPC Technology Specific contracts in locations such as Beaufort Marine Corps Air Station, Beaufort, SC; Charleston Air Force Base, Charleston, SC; Oceana Naval Air Station, Norfolk, VA; and Dam Neck Annex, Oceana Naval Air Station, Norfolk, VA.



Trane and U.S. Environmental Protection Agency

Trane is also an EPA Energy Star Ally and a manufacturer of Energy Star compliant products. Some of Trane's newest manufacturing facilities are Energy Star award facilities. The Trane experience in delivering numerous guaranteed performance project solutions, to meet aggressive energy conservation goals, using a multitude of different technologies will allow Trane to survey, develop and deliver a solution optimized to meet, or exceed, the facility owner's expectations and conservation goals.



Performance Contracting

Involvement: Trane is recognized for ESPC work in the public sector as well. As we stated we are qualified as an Energy Service Company by the U.S. Department of Energy (DOE), and actively engaged in proposals and projects in conjunction with the department. Trane DOE projects include "Super ESPC" Technology Specific contracts, which are indefinite-delivery, indefinite-quantity (IDIQ) contracts for work with federal agencies. According to DOE, these "practical, cost-effective" projects have been endorsed both by the U.S. Congress and by the President.

Awards: The U.S. Environmental Protection Agency (EPA) named Trane an Energy Star Building "Ally of the Year" in 1998. This national award for saving energy emphasizes profitable investment opportunities created by implementation of proven energy-efficiency technologies.

For our work as an ESCO, Trane earned a national energy-saving award—the EPA Energy Star Building Ally of the Year—in 1998. The program, which emphasizes the profitable investment opportunities created by implementation of proven energy-efficiency technologies, was hailed as a "remarkable example of environmental leadership." Many Trane ESPC projects developed by our Comprehensive Solutions group or with PACT™ now bear the Energy Star label. And many others are certified by the Leadership in Energy and Environmental Design (LEED) building rating system created by the U.S. Green Building Council (USGBC).

Trane received the "Commander in Chief's Special Recognition for Installation Excellence," recognizing outstanding and innovative efforts to operate and maintain U.S. military installations, in 2002. According to the Department of Defense, "Excellent installations enable better mission performance and enhance the quality of life for military men and women and their families."

In 2003, Trane won the "BTU Smackdown Award" from the Louisiana Department of Natural Resources for our project work. And in 2005, the DOE named Trane a "Premier Allied Partner" for the agency's highly successful Rebuild America program. This citation honored Trane for excellence in promoting energy-efficiency and renewable-energy technologies and practices.

Following a run of awards over the last two decades, Trane was named as a Partner in the Clinton Climate Initiative—a high-profile, global effort to reduce greenhouse gas emissions in cities. This honor was based on Trane's unique blend of building knowledge, ESCO experience, and leadership in energy-efficient HVAC equipment, controls and services that optimize building energy performance.

Energy Efficiency

Involvement: As a large, vertically integrated ESCO, Trane has enjoyed the opportunity to assume a leadership position in U.S. energy-savings efforts. Key standards and codes for energy efficiency have been developed with involvement from Trane personnel who have volunteered or been nominated to those groups.

In the public sector, Trane is actively involved with EPA and DOE through their Energy Star initiative. We are active in ESPC projects with DOE, several federal agencies, and with all branches of the U.S. military.

Trane leads the field in the engineering and manufacture of energy-efficient HVAC products, automated controls, and comfort systems. And our Trace® 700 software for the energy modeling of facilities has become an industry standard. Many ESCOs, including most of our competitors, use Trace® to verify the effectiveness of upgrade and retrofit strategies.

Awards: Trane has earned recognition for helping individuals, companies, and governments save energy—from official citations to blue ribbons in industry competitions. These prizes have come from diverse sources, including engineering groups like ASHRAE, trade associations like ARI, and end-user organizations such as BOMA. Globally, Trane was honored at the China International Real Estate & Architect Fair in 2005, earning an award for “Best Model of China Construction, Energy Saving Series.”

Frost and Sullivan honored Trane with a “Product Innovation of the Year Award” in 2006 for the Trane CDQ™, a desiccant dehumidifier. This followed a “Market Engineering Product Innovation Award” for the Integrated Comfort System, another Trane product. Customers have agreed, as shown by our “Reader’s Choice” awards from publications like Today’s Facility Manager and Buildings.

We also practice what we preach. Some of our newest manufacturing facilities have earned awards for energy efficiency. Our plants are ISO certified for compliance with best environmental practices, and meet or exceed all EPA and environmental regulations. Throughout our company culture and operations, Trane takes environmental sustainability to heart.

Sustainability

Involvement: The leading national and global organization promoting and verifying the sustainability of facilities is the U.S. Green Building Council (USGBC). Trane has supported this group and participated in its many activities and programs, both on a local and national level. We dedicate our technical expertise to the LEED New Construction Core Committee and the USGBC Technical Committee, among other council groups.



Our USGBC involvement affects every facet of Trane’s Comprehensive Solutions delivery and our PACT™ services. We have been involved in numerous building projects that have applied for or earned LEED certification. Our central and local field offices employ over 600 LEED Accredited Professionals. This designation is a new but recognized benchmark for competency and knowledge of green building techniques.



Trane products can provide points toward LEED Silver, Gold and Platinum project ratings: Our centrifugal chillers have such low refrigerant leak rates that USGBC will provide a credit toward the project LEED rating if that equipment is used.

Awards: Trane is recognized for supporting sustainability and environmentally sound practices. After earning a “Best Practice Award” from the Sustainable Buildings

Industry Council (SBIC) in 2001 for our Earth·Wise™ chiller system, we earned the SBIC “Best Sustainable Practice” award for three years running, in 2003, 2004, and 2005. These prizes reflect our efforts to create sustainable products, promote sustainable facilities design and operation, and employ environmentally sound practices in our own company operations.



Among our most prestigious honors is our recent inclusion in the Clinton Climate Initiative (CCI), which aims to reduce greenhouse-gas emissions in America’s cities. By joining this elite group as a CCI Partner, Trane was publicly recognized for our unique blend of knowledge of building systems and energy services and performance contracting.

Trane earned an “EPA Climate Protection Award” in 1998 for our leadership in engineering super-efficient chillers, which use refrigerants that deplete less ozone. Our products also effectively protect against refrigerant leaks, allowing us to offer Trane’s “Leak Tight” Guarantee. This capability was formally recognized recently when the USGBC allowed a LEED credit toward project certification based on our low leak rates.

Trane’s projects have also earned awards, including three buildings that attained “Earth Day Building Award” status from a coalition including the EPA. The World Wildlife Fund has bestowed a “Gifts to the Earth” Award to Trane, too. But while these laurels are important to us, we don’t rest on them. We work every day to advance the industry through our ESPC projects—and achieve better results for our customers.

Summary

Trane’s accreditations and pre-qualifications (e.g., NAESCO, ASHRAE, DOE, EPA, Clinton Climate Initiative, Sustainable Buildings Industry Council, and the U.S. Green Building Council) are relevant and important to the work proposed in this RFQ because it demonstrates our commitment and expertise to the performance contracting process and provides our customers with demonstrated competency and accepted industry practices proven to deliver successful projects.

2.1.10. Professional certifications.

As described in the Statement of Qualification, DAS-14, Trane has the following relevant certifications, licenses, and registrations:

- S-1, S-2
- E-1, E-2
- GC-1
- C.E.M.
- P.E. – licensed in State of CT
- LEED
- C.E.A.
- B.S.M.E.

2.2. Market Sector Involvement.

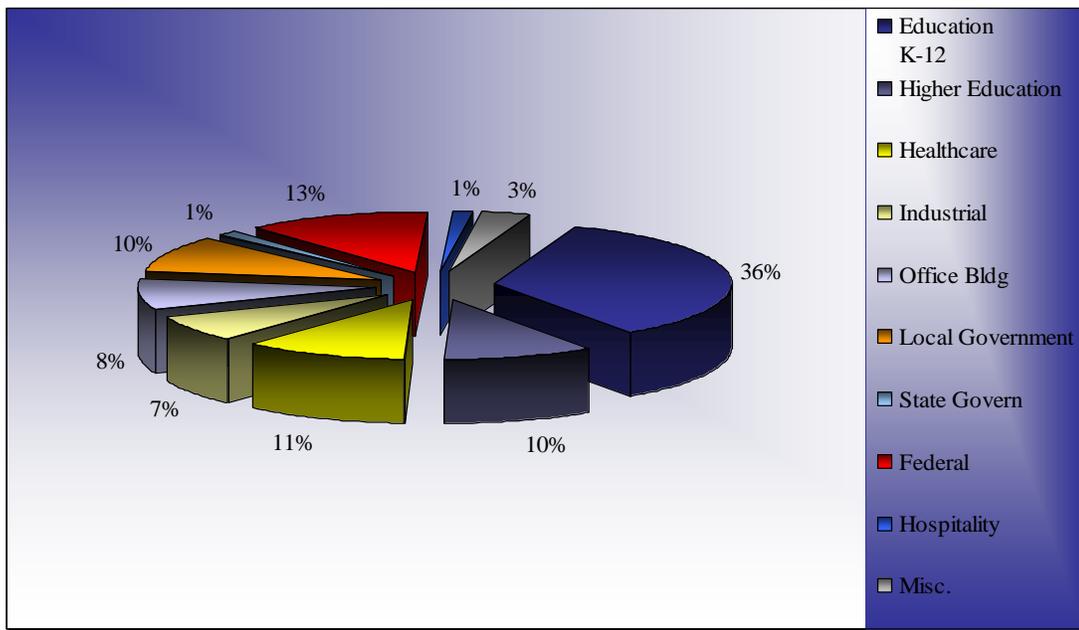
Trane has provided energy saving solutions for all of the market sectors identified in this section.

Trane’s experience includes successful implementation of lighting retrofits, application of variable frequency drive technologies, motor upgrades, peak shaving, high efficiency HVAC retrofits, water / sewer conservation, building envelope improvements, geothermal / high efficiency water source heat

pump technologies, central boiler / chiller plant upgrades / installations, building automation system – energy management control system applications and much more. In addition to the energy efficiency benefits, Trane has provided equipment and controls to improve indoor air quality (IAQ), fire / smoke evacuation safety and occupant comfort.

As shown in the table below, Trane has provided and completed Performance Contracting projects in most vertical markets. See a list of the specific projects by vertical markets in the following pages.

Performance Contract Projects by Vertical Market (%)



Vertical Market	Number of Projects	Percentage of Total
Education K-12	124	35%
Higher Education	36	10%
Healthcare	40	11%
Industrial	25	7%
Office Bldg	30	8%
Local Government	35	10%
State Govern	5	1%
Federal	44	12%
Hospitality	5	1%
Misc.	12	3%

2.2.1. State Agencies.

In addition to the State of CT agencies listed in DAS-14, Statement of Qualifications, Trane has experience in other State government agencies as listed below:

Project Name	Facility Type	City & State	Project Size (\$mm)	Project Size (sq. ft.)	Year Completed
Department of Mental Health, Mental Retardation, and Substance Abuse Services ("DMHMRSAS"), Southside Virginia Training Center (SVTC)	State Government	Petersburg, VA	\$ 14.20	2,000,000	2005
Catawba State Hospital	State Government	Catawba, VA	\$ 2.70	212,377	2006
DMS SpNS Generators	State Government	Miami, FL	\$ 22.00	480,000	2007
CDCR Corcoran State Prison	State Government	Corcoran, CA	\$ 1.00	100,000	2008
Donald C. Cook Nuclear Plant	State Government	Bridgman, MI	\$ 4.20	310,000	2008
State Government Total			\$ 44.10		

2.2.2. Boards of Education.

Our Trane office in CT has many different channels and expertise that deal with Boards of Education to help keep schools operating efficiently and without interruption. Our expertise in the different areas is HVAC service and repair, part centers, new equipment sales, controls contracting and service, and energy services contracting. All areas of our business have had many direct dealings with different Boards of Education in the State of CT.

Specifically, to list a few examples, we have worked with the following Boards:

- City of Bridgeport (energy services)
- East Haddam (turnkey contracting project)
- New Canaan (turnkey contracting project, HVAC service)
- Avon (controls contracting and HVAC service)
- North Branford (performance contract at Francis Walsh Intermediate School)

2.2.3. Higher education institutions – universities, colleges, community colleges.

For higher education institutions, Trane has a lot of experience in the sale of high efficiency HVAC equipment, service and repair, DDC Energy Management systems, and energy services contracting. Our local part centers are also vital to the operation of many of these key learning institutions. If there is a mechanical failure that disrupts heating or cooling, Trane has a part locally available to help correct the problem in a timely manner.

As an example of our experience in the local CT market, Trane has developed and implemented turnkey energy services contracts for the following higher education facilities:

- Wesleyan University, Middletown, CT
- Connecticut College, New London, CT
- Trinity College, Hartford, CT – in development phase

2.2.4. Municipalities with population between 100,000 and 150,000.

See section 2.2.5 below.

2.2.5. Municipalities with population under 100,000 population.

Similar to Boards of Education, Trane has worked with many municipalities in all areas of our business. Most municipalities in the State of CT have not pursued performance contracting because of the lack of enabling legislation. With the new State legislation, PA 11-80, this will give the municipality's direction and a map to navigate through the process without taking on the risk of creating their own process.

Once again, we offer expertise in many areas that deal with buildings owned and operated by municipalities; such as, HVAC equipment sales and service, DDC Energy Management System design and installation, part centers, energy services contracting. Please refer to Boards of Education above in 2.2.2 for specific names of municipalities.

2.2.6. Specific government building types – K-12 school buildings, correctional facilities, hospitals, laboratories, dormitories, office buildings, recreational centers, libraries, multi-family buildings.

One of our areas in expertise is the energy services work we perform in Hospitals and office buildings. Through our strong relationship with The Connecticut Hospital Association (CHA), we have been able to help our Hospital customers secure 0% interest financing for up to a 7-year term. This program is supported by the CT Energy Efficiency Fund (CEEF). For example, the local CT hospitals that we have helped with the CHA financing program are as follows:

- Middlesex Hospital - \$300k
- CT Children's Medical Center - \$500k
- Bristol Hospital - \$1MM

In order to qualify for the CHA loan, we had to develop and submit an Investment Grade Energy Audit report.

Additionally, we have performed several energy services contracting projects for local CT office buildings combined with helping the building owner secure a substantial incentive award through CEEF. The following list names a few of our projects:

- REIT Management & Research, LLC
 - 100 Northfield, Windsor, CT
 - 185 Plains Road, Milford, CT
 - 50 Barnes Road, Wallingford, CT
 - 101 Barnes Road, Wallingford, CT
 - 129 Worthington Ridge, Wallingford, CT
- V-Technologies, Cheshire, CT
- Henkel, Rocky Hill, CT
- LAN Executive Center, Enfield, CT
- Northeast Utilities, Berlin, CT

The private sector in CT has been investing in their properties to lower energy costs and reduce operating expenses with the help of incentives through CEEF. Trane has been a leader in CT helping larger business, commercial and industrial, implement energy efficiency projects.

2.2.7. Other non-buildings, including but not limited to wastewater treatment facilities, water meter projects, traffic signals, and street lights.

Trane has done many DDC Energy Management system installations at CT wastewater treatment facilities; such as:

- Hockanum, CT
- Globe Hollow, Manchester, CT
- South Windsor, CT
- Ansonia, CT,

We also have expertise in utility metering (i.e. gas, electric, steam, oil and water). For many of our energy services projects, we have installed metering for measurement and verification of utility consumption data.

Our expertise in outdoor lighting is an area of continued growth. With the surge of LED and induction high performance lighting technologies, we have been able to perform many more retrofits as part of an overall energy services contract. The financial payback is becoming more attractive as the costs of these newer technologies come down over time.

2.3. Project List.

Project Name	Facility Type	City/State	Project Size (\$)	Project Size (square feet)	Year Completed
Archdiocese of Hartford	Religious	Hartford, CT	\$2,071,705	142,451	2012
100 Northfield Road	Office	Windsor, CT	\$638,452	120,612	2008
185 Plains Road	Office	Milford, CT	\$1,151,090	143,802	2010
Capital District Energy Plant	Utility	Hartford, CT	\$777,833	60,000	2012
Connecticut College	Higher Education	New London, CT	\$552,800	133,000	2011
CT Children's Medical Center	Hospital	Hartford, CT	\$887,640	530,000	2010
Corning Credit Union	Office	Corning, NY	\$902,783	96,584	2008
FF Thompson Hospital	Healthcare	Canandaigua, NY	\$2,450,000	302,000	2008
Griffin Hospital	Hospital	Derby, CT	\$3,150,000	180,000	2009
Henkel	Office	Rocky Hill, CT	\$1,117,472	200,000	2011
Jefferson Community College	Higher Education	Watertown, NY	\$1,340,000	249,433	2012
Johnson City Central Schools	Education	Williamson, NY	\$6,124,000	468,988	2012
Middlesex Hospital	Hospital	Middlesex & Essex, CT	\$346,274	61,728	2008
Northeast Utilities Headquarters	Office	Berlin, CT	\$241,000	110,000	2008
Northwest YMCA	Association	Torrington, CT & Winsted, CT	\$521,047	103,000	2011
NY Independent System Operator (NYISO)	Utility	Rensselaer, NY	\$1,881,192	64,000	2009
SavaSenior Care	Healthcare	Niantic & Mystic, CT	\$1,078,487	132,000	2009
Stamford Town Center Chiller	Office	Stamford, CT	\$1,018,342	900,000	2008
Strong Museum	Museum	Rochester, NY	\$11,288,988	280,000	2006
US Army-Fort Drum ESPC 1 & 2	Government - Military	Fort Drum, NY	\$18,950,000	12,598,880	2011
Wesleyan University Phase 1	Higher Education	Middletown, CT	\$1,891,500	3,000,000	2008
Wesleyan University Phase 2	Higher Education	Middletown, CT	\$4,390,590	3,000,000	2011
Wesleyan University Phase 3 & 4	Higher Education	Middletown, CT	\$6,481,753	3,000,000	2012

2.4. Project References.

<p>2.4.1 Project Identification</p>	<p>Wesleyan University</p>  <p>45 Wyllys Avenue Middletown, CT Higher Education</p>
<p>2.4.2 Contact Information</p>	<p>Peter Staye Associate Director, Utilities 860-685-3773</p>
<p>2.4.3 Project Type</p>	<p>Comprehensive Turnkey Energy Retrofit/multiple phase</p>
<p>2.4.4 Project size</p>	<p>Number of buildings: 174 Total square footage: 3,000,000</p>
<p>2.4.5 Project Dollar Amount</p>	<p>Project: \$12,760,000 Capital expenditure: Internally financed</p>
<p>2.4.6 Source of Funding</p>	<p>Of the total project dollar amount, Wesleyan was awarded \$3,673,450 or 29% of the total contract amount in electric and gas incentives through the CT Energy Efficiency Fund. Trane engineered and developed the IGEA reports that calculated the energy savings and detailed the Energy Efficiency Measures for the submission of the incentive letter of award (LOA). The remainder of the funds was financed by Wesleyan through their endowment.</p>
<p>2.4.7 Project Dates</p>	<p>Audit start – end dates: For each Phase, preliminary audit was started in May and completed in July, the IGEA was started in August and completed in October Construction start – end dates: For each phase, construction started in February or March and completed in November or December</p>
<p>2.4.8 Contract terms</p>	<p>Contract was a master agreement with negotiated Terms and Conditions mutually agreed by both parties. The contract term was 1 year.</p>

<p>2.4.9 Project Personnel</p>	<p>David Ford Comprehensive Solutions Account Executive Involved in CT ESPCP projects: Yes</p> <p>Tim Stewart Senior Energy Engineer Involved in CT ESPCP projects: Yes</p> <p>Steve Young Project Developer Involved in CT ESPCP projects: Yes</p> <p>Jim DiLieto Project Manager Involved in CT ESPCP projects: Yes</p>
<p>2.4.10 Project Schedule</p>	<p>Project was completed on schedule and prior to the completion date in the CL&P incentive Letter of Agreement.</p>
<p>2.4.11 List of Improvements</p>	<ul style="list-style-type: none"> • Campus-wide computer power management of over 1,100 computers • High efficiency lighting retrofits and installation of lighting occupancy sensors • A complete renovation of the Science Center HVAC system. Conversion of a dual duct mixing box air distribution system to a VAV air distribution system. We shutoff and capped the heating duct and controlled the perimeter induction units as a source of heat for the perimeter of the building. We also added lighting occupancy sensors with an extra set of dry contacts for VAV box occupancy control of cooling in the space. • Campus chiller plant was optimized by adding variable primary pumping and chiller/cooling tower temperature controls that through feedback can constantly make changes to implement an overall lowest kWh/ton of cooling plant energy consumption • High performance lighting upgrades – LED exterior lighting • Campus-wide water conservation • Energy Management System upgrades: pneumatic to DDC conversion, re-commissioning, enhancements for energy efficiency • Campus grocery store modernization: replacement of self-contained refrigerated cases with central high efficiency cases designed to remove the compressor heat from the indoors to outdoors, which reduced cooling load by 10 tons. New cases contained LED lighting source • Campus-wide building envelope improvements: insulation of attic spaces, crawl spaces, and roofs. Sealing of cracks in doors, windows, roof to wall joints and basements • Power factor correction for Freeman Athletic Center • Laundry ozone system to reduce hot water and detergent usage • Complete swimming pool HVAC upgrade/replacement • Campus-wide oil to natural gas heating conversion. Replace or upgrade old inefficient oil fired boilers to new natural gas condensing boilers for heating and domestic hot water

	<ul style="list-style-type: none"> • Window replacement in the Cady building • Kitchen refrigeration/freezer controls
--	---

2.4.12 Project Performance for **Wesleyan University phases 1 through 4:**

Units	Projected Annual Energy Savings	Guaranteed Annual Energy Savings	Actual Energy Savings Year 1	Actual Energy Savings Year 2	Actual Energy Savings Year 3	Actual Energy Savings Year 4	Actual Energy Savings Year 5
kWh	5,672,846						
kW	555						
Therms	33,924						
Gallons - Oil	132,531						
Other - Water (CCF)	40,178						
		<i>Wesleyan decided that they did not want to pursue an energy savings performance guarantee. Our energy savings were stipulated and verified by a 3rd party Energy Engineer outsourced by CL&P for the Letter of Incentive Agreement. Wesleyan's Director of Energy Management, Peter Staye, tracks total campus-wide energy consumption and since 2006, he is reporting a peak utilities budget of \$10MM reduced to \$6.5MM in 2012 or a 35% reduction in utility spend</i>					

2.4.13 Measurement and Verification	None
2.4.14 Performance Guarantee	None
2.4.15 Additional Comments	<p>I think it is important to note that when performing a multiple phase project over many years, your team has to be reliable, honest, and trustworthy. Otherwise, an owner will not continue doing business with an ESCO who doesn't meet or exceed their commitments. We are proud of our accomplishments at Wesleyan University and we currently have a signed agreement to move forward with an IGEA for a Phase 5.</p> <p>Wesleyan and Trane were awarded "Energy Project of The Year for Region 1" by the Association of Energy Engineers in 2009.</p>

<p>2.4.1 Project Identification</p>	<p>Henkel Corporation</p>  <p>1 Henkel Way Rocky Hill, CT 06067 Manufacturing</p>
<p>2.4.2 Contact Information</p>	<p>Tony Femc Manager, Facilities Engineering 860-571-5197</p>
<p>2.4.3 Project Type</p>	<p>Comprehensive Turnkey Energy Retrofit</p>
<p>2.4.4 Project size</p>	<p>Number of buildings: one Total square footage: 200,000</p>
<p>2.4.5 Project Dollar Amount</p>	<p>Project: \$1,117,472 Capital expenditure: \$1,117,472</p>
<p>2.4.6 Source of Funding</p>	<p>Of the total project dollar amount, Henkel was awarded a \$486,416 or 44% of the total in an electric and gas incentives through the CT Energy Efficiency Fund. Trane engineered and developed the IGEA reports that calculated the energy savings and detailed the Energy Efficiency Measures for the submission of the incentive letter of award (LOA). The remainder of the project was paid by Henkel capital sources.</p>
<p>2.4.7 Project Dates</p>	<p>Audit start – end dates: May 2012 – October 2010 Construction start – end dates: March 2011 – October 2011</p>
<p>2.4.8 Contract terms</p>	<p>Henkel construction contract. Contract term was 1 year</p>
<p>2.4.9 Project Personnel</p>	<p>David Ford Comprehensive Solutions Account Executive Involved in CT ESPCP projects: Yes</p> <p>Tim Stewart Senior Energy Engineer Involved in CT ESPCP projects: Yes</p>

	<p>Steve Young Project Developer Involved in CT ESPCP projects: Yes</p> <p>Jim DiLieto Project Manager Involved in CT ESPCP projects: Yes</p>
2.4.10 Project Schedule	Project was completed on schedule and prior to the completion date in the CL&P incentive Letter of Agreement.
2.4.11 List of Improvements	<ul style="list-style-type: none"> • High efficiency lighting upgrade • Comprehensive lighting occupancy sensor design and installation • Central Station Air Handling unit optimization: convert from inlet guide vanes to VFD for VAV fan speed modulation control. DDC enhancements for optimal start/stop, night setback temperature control, fan pressure optimization • Water conservation measure for all restroom and shower facilities • Steam condensate recovery system • Reduced flow strategies for electric room and chemical waste storage

2.4.12 Project Performance for **Henkel**:

Units	Projected Annual Energy Savings	Guaranteed Annual Energy Savings	Actual Energy Savings Year 1	Actual Energy Savings Year 2	Actual Energy Savings Year 3	Actual Energy Savings Year 4	Actual Energy Savings Year 5	
kWh	1,381,281	<i>Henkel decided that they did not want to pursue an energy savings performance guarantee. Our energy savings were stipulated and verified by a 3rd party Energy Engineer outsourced by CL&P for the Letter of Incentive Agreement. Henkel's Facility Director, Tony Femc, reported a 20%-25% reduction in kWh after several months of having the improvements in place and operational.</i>						
kW	130							
Therms	19,547							
Gallons	0							
Other - Water (CCF)	1,946							

2.4.13 Measurement and Verification	None
2.4.14 Performance Guarantee	None
2.4.15 Additional Comments	None

<p>2.4.1 Project Identification</p>	<p>Connecticut Children's Medical Center</p>  <p>282 Washington Street Hartford, CT Healthcare</p>
<p>2.4.2 Contact Information</p>	<p>Bob Will Facility Director (860) 545-8501</p>
<p>2.4.3 Project Type</p>	<p>Comprehensive Turnkey Energy Retrofit</p>
<p>2.4.4 Project size</p>	<p>Number of buildings: one Total square footage: 530,000</p>
<p>2.4.5 Project Dollar Amount</p>	<p>Project: \$887,640 Capital Expenditure: Financed</p>
<p>2.4.6 Source of Funding</p>	<p>CT Hospital Association: 0% financing, 7-year term Of the total project dollar amount, CCMC was awarded a \$300,000 or 34% of the total in an electric incentive award through the CT Energy Efficiency Fund. Trane engineered and developed the IGEA reports that calculated the energy savings and detailed the Energy Efficiency Measures for the submission of the incentive letter of award (LOA). The same report was submitted to CHA for the 0% financing award.</p>
<p>2.4.7 Project Dates</p>	<p>Audit start – end dates: June 2009 – October 2009 Construction start – end dates: April 2010 – September 2010</p>
<p>2.4.8 Contract terms</p>	<p>Purchase Order, Contract Term 1 year</p>
<p>2.4.9 Project Personnel</p>	<p>David Ford Comprehensive Solutions Account Executive Involved in CT ESPCP projects: Yes</p> <p>Tim Stewart Senior Energy Engineer Involved in CT ESPCP projects: Yes</p>

	<p>Steve Young Project Developer Involved in CT ESPCP projects: Yes</p> <p>Jim DiLieto Project Manager Involved in CT ESPCP projects: Yes</p>
2.4.10 Project Schedule	Project was completed on schedule and prior to the completion date in the CL&P incentive Letter of Agreement.
2.4.11 List of Improvements	<ul style="list-style-type: none"> • Upgrade an obsolete central cooling plant and lighting systems • Improve comfort control in patient care areas • Increase operating margins through lower energy costs

2.4.12 Project Performance for CT Children’s Medical Center:

Units	Projected Annual Energy Savings	Guaranteed Annual Energy Savings	Actual Energy Savings Year 1	Actual Energy Savings Year 2	Actual Energy Savings Year 3	Actual Energy Savings Year 4	Actual Energy Savings Year 5
kWh	532,278	<i>CCMC decided that they did not want to pursue an energy savings performance guarantee. Our energy savings were stipulated and verified by a 3rd party Energy Engineer outsourced by CL&P for the Letter of Incentive Agreement.</i>					
kW	210						
Therms	0						
Gallons	0						
Other (\$)	N/A						

2.4.13 Measurement and Verification	None
2.4.14 Performance Guarantee	None
2.4.15 Additional Comments	<ul style="list-style-type: none"> • Trane and CCMC were awarded the 2010 Energy Award for Excellence in Design and Engineering by The Association of Energy Engineers in 2010 • Trane and CCMC were awarded the Northeast Energy Efficiency Council Environmental Award in 2010 

2.4.1 Project Identification	<p>Griffin Hospital 130 Division Street Derby, CT</p> <p>Healthcare</p>	
2.4.2 Contact Information	<p>Seth Shepard Vice President of Facilities & Engineering (203) 732-7343</p>	
2.4.3 Project Type	<p>Comprehensive Turnkey Energy Services</p>	
2.4.4 Project size	<p>Number of buildings: one Total square footage: 180,000</p>	
2.4.5 Project Dollar Amount	<p>Project: \$3.1 million Capital expenditure: Financed</p>	
2.4.6 Source of Funding	<p>Trane facilitated the financing arrangements with Bank of America and Griffin Hospital for a lease</p>	
2.4.7 Project Dates	<p>Audit start – end dates: June 2007 – November 2007 Construction start – end dates: April 2008 – June 2009</p>	
2.4.8 Contract terms	<p>Signed Trane Proposal</p>	
2.4.9 Project Personnel	<p>David Ford Comprehensive Solutions Account Executive Involved in CT ESPCP projects: Yes</p> <p>Tim Stewart Senior Energy Engineer Involved in CT ESPCP projects: Yes</p> <p>Jim DiLieto Project Manager Involved in CT ESPCP projects: Yes</p>	
2.4.10 Project Schedule	<p>Project was completed on schedule and prior to the completion date in the UI incentive Letter of Agreement.</p>	
2.4.11 List of Improvements	<ul style="list-style-type: none"> Precise comfort and air quality control in the ED and OR suites through the installation of five new air handling units (totaling 105,000 CFM), hot water 	

	reheat upgrades and a new energy management system <ul style="list-style-type: none"> • Energy savings through high-efficiency lighting upgrades, advanced HVAC control strategies and pumping system enhancements • Sustained savings and optimal system performance through Trane’s long-term building management support and training services
--	---

2.4.12 Project Performance for **Griffin Hospital**:

Units	Projected Annual Energy Savings	Guaranteed Annual Energy Savings	Actual Energy Savings Year 1	Actual Energy Savings Year 2	Actual Energy Savings Year 3	Actual Energy Savings Year 4	Actual Energy Savings Year 5
kWh	495,486	<i>Griffin Hospital decided that they did not want to pursue an energy savings performance guarantee. Our energy savings were stipulated and verified by a 3rd party Energy Engineer at UI for the Letter of Incentive Agreement.</i>					
kW	188						
Therms	59,193						
Gallons	0						
Other	N/A						

2.4.13 Measurement and Verification	None
2.4.14 Performance Guarantee	None
2.4.15 Additional Comments	It was imperative that Griffin Hospital could not shutdown their Emergency Department or operating rooms during construction of this project. We had the challenge of replacing the central station air handling units while keeping the operating rooms up and running. We accomplished this goal by a phased replacement approach.

<p>2.4.1 Project Identification</p>	<p>Johnson City Central School District</p>  <p>666 Reynolds Road Williamson, NY Education</p>
<p>2.4.2 Contact Information</p>	<p>John Mauro School Business Official (607) 763-1218</p>
<p>2.4.3 Project Type</p>	<p>Energy Savings Performance Contract</p>
<p>2.4.4 Project size</p>	<p>Number of buildings: five Total square footage: 468,988</p>
<p>2.4.5 Project Dollar Amount</p>	<p>Project: \$6,124,000 (for three phases) Capital expenditure: financed</p>
<p>2.4.6 Source of Funding</p>	<p>Third party</p>
<p>2.4.7 Project Dates</p>	<p>District-wide upgrades delivered by 3 phases occurring between 1999-2012</p>
<p>2.4.8 Contract terms</p>	<p>Guaranteed Savings Energy Performance Contract. 18-year term</p>
<p>2.4.9 Project Personnel</p>	<p>Tom Nicholson Comprehensive Solutions Account Executive Involved in CT ESPCP projects: No</p> <p>Matt Pinczes Energy Engineer Involved in CT ESPCP projects: Yes</p>
<p>2.4.10 Project Schedule</p>	<p>Completed on time</p>
<p>2.4.11 List of Improvements</p>	<ul style="list-style-type: none"> • Replaced central plant chiller, cooling tower, pumps, variable speed drive for tower and steam boiler system to convert from electric to hot water serving kitchen equipment • New central heating plant – high efficiency boilers • State-of-the-art DDC integrated building management system

	<ul style="list-style-type: none"> • New modular heating plant(s) in high school • State of the art boiler control upgrades at K-8 school • Control of engine block heaters for buses • New HVAC systems in renovated areas with advanced temperature and ventilation strategies • Automated pool cover • High efficiency pool heating & pumping strategies • High efficiency lighting • Vending machine occupancy control sensors • Solar powered entrance sign • On-going staff training and maintenance
--	--

2.4.12 Project Performance for **Johnson City Central School District:**

Units	Projected Annual Energy Savings	Guaranteed Annual Energy Savings	Actual Energy Savings Year 1	Actual Energy Savings Year 2	Actual Energy Savings Year 3	Actual Energy Savings Year 4	Actual Energy Savings Year 5
kWh	588,468	521,053	536,716	604,980	588,841	577,071	595,319
kW	1,636	1,423	1,435	1,690	1,690	1,690	1,690
Therms	-10,666	-9,275	-7,970	-7,804	-7,804	-7,804	-7,804
Gallons	0	0	0	0	0	0	0
Other (\$)	\$ 107,100	\$ 98,682	\$ 101,827	\$ 112,698	\$ 111,156	\$ 107,612	\$ 108,640

2.4.13 Measurement and Verification	Point Source Method: The Point Source guarantee does not rely on the presence of meters. As the name implies, energy is measured at the point, directly where it is consumed. For instance, the wattage consumption of a light bulb is measured directly at the light bulb, or branch circuit serving only lighting. This method assures absolute accuracy since the wattage measurement is that of only the light bulb, or lighting system.
2.4.14 Performance Guarantee	Trane performs annual reconciliation of energy unit savings per contracted guarantee. All savings belong to the customer with a minimum contracted value guaranteed by Trane. Contract specified utility rates are used to determine a dollar value for all units saved and reconciliation of any potential excess or shortfall. Excess or shortfalls are typically carried over from one year to the next and tracked in aggregate throughout the term of the agreement.
2.4.15 Additional Comments	None

<p>2.41 Project Identification</p>	<p>FF Thompson Health Systems</p>  <p>350 Parrish Street Canandaigua, NY Healthcare</p>
<p>2.4.2 Contact Information</p>	<p>Rick Gerger Director of Operations 585-390-6000</p>
<p>2.4.3 Project Type</p>	<p>Energy Savings Performance Contract</p>
<p>2.4.4 Project size</p>	<p>Number of buildings: one Total square footage: 302,000</p>
<p>2.4.5 Project Dollar Amount</p>	<p>Project: \$2.5 million Capital expenditure: financed</p>
<p>2.4.6 Source of Funding</p>	<p>Financed through third-party lender. Trane secured low-interest loan subsidy through NYSERDA which reduced the interest rate by 4.0%.</p>
<p>2.4.7 Project Dates</p>	<p>Audit start – end dates: June 2006 – February 2007 Construction start – end dates: March 2007 – December 2008</p>
<p>2.4.8 Contract terms</p>	<p>Guaranteed Savings Energy Performance Contract. 10-year term</p>
<p>2.4.9 Project Personnel</p>	<p>Tom Nicholson Comprehensive Solutions Account Executive Involved in CT ESPCP projects: No</p> <p>Matt Pinczes Energy Engineer Involved in CT ESPCP projects: Yes</p>
<p>2.4.10 Project Schedule</p>	<p>Completed on time</p>

2.4.11 List of Improvements	<ul style="list-style-type: none"> • New 800-ton centrifugal chiller • New chiller plant controls • New air handling equipment • New cooling towers • A long-term maintenance contract and warranty service ensures energy savings will be realized
-----------------------------	--

2.4.12 Project Performance for **FF Thompson Health Systems:**

Units	Projected Annual Energy Savings	Guaranteed Annual Energy Savings	Actual Energy Savings Year 1	Actual Energy Savings Year 2	Actual Energy Savings Year 3	Actual Energy Savings Year 4	Actual Energy Savings Year 5
kWh	-330,645	-401,614	-401,614	-426,725			
kW	0	0	0	0			
Therms	301,597	289,523	289,523	289,523			
Gallons (water)	1,803	1,443	1,443	1,443			
Other (\$)	\$ 338,169	\$ 290,825	\$ 290,825	\$ 290,825			

2.4.13 Measurement and Verification	<p>Point Source Method: The Point Source guarantee does not rely on the presence of meters. As the name implies, energy is measured at the point, directly where it is consumed. For instance, the wattage consumption of a light bulb is measured directly at the light bulb, or branch circuit serving only lighting. This method assures absolute accuracy since the wattage measurement is that of only the light bulb, or lighting system.</p>
2.4.14 Performance Guarantee	<p>Trane performs annual reconciliation of energy unit savings per contracted guarantee. All savings belong to the customer with a minimum contracted value guaranteed by Trane. Contract specified utility rates are used to determine a dollar value for all units saved and reconciliation of any potential excess or shortfall. Excess or shortfalls are typically carried over from one year to the next and tracked in aggregate throughout the term of the agreement.</p>
2.4.15 Additional Comments	None

<p>2.4.1 Project Identification</p>	<p>Jefferson County, NY Jefferson Community College</p>  <p>1220 Coffeen Street Watertown, NY Higher Education</p>
<p>2.4.2 Contact Information</p>	<p>Dan Dupee Vice President, Finance & Operations (315) 786-2401</p>
<p>2.4.3 Project Type</p>	<p>Energy Savings Performance Contract</p>
<p>2.4.4 Project size</p>	<p>Number of buildings: eight Total square footage: 249,433</p>
<p>2.4.5 Project Dollar Amount</p>	<p>Project: \$1,340,000 Capital expenditure: financed</p>
<p>2.4.6 Source of Funding</p>	<p>Third party</p>
<p>2.4.7 Project Dates</p>	<p>Multiple phases. Completed 2012</p>
<p>2.4.8 Contract terms</p>	<p>Guaranteed Savings Energy Performance Contract. 15-year term</p>
<p>2.4.9 Project Personnel</p>	<p>Tom Nicholson Comprehensive Solutions Account Executive Involved in CT ESPCP projects: No</p> <p>Matt Pinczes Energy Engineer Involved in CT ESPCP projects: Yes</p>
<p>2.4.10 Project Schedule</p>	<p>Completed on time.</p>
<p>2.4.11 List of Improvements</p>	<ul style="list-style-type: none"> • Project development, design, coordination and implementation of energy

	<p>conservation measures in all buildings throughout the entire campus</p> <ul style="list-style-type: none"> • Modernize and renovate central heating system in McVean College Center • Modernize and renovate central heating system in Dewey Library Building • Install new state-of-the-art integrated building energy management system • Campus-wide high efficiency lighting interior • Exterior street and parking lot exterior induction lighting retrofits • Vending machine occupancy control • Evaluation of solar-wind hybrid renewable energy system • On-going staff training and maintenance
--	--

2.4.12 Project Performance for **Jefferson Community College**:

Units	Projected Annual Energy Savings	Guaranteed Annual Energy Savings	Actual Energy Savings Year 1	Actual Energy Savings Year 2	Actual Energy Savings Year 3	Actual Energy Savings Year 4	Actual Energy Savings Year 5
kWh	589,400	521,010					
kW	1,315	1,180					
Therms	57,958	46,622					
Gallons							
Other (\$)	\$ 136,916	\$ 116,620					

2.4.13 Measurement and Verification	Point Source Method: The Point Source guarantee does not rely on the presence of meters. As the name implies, energy is measured at the point, directly where it is consumed. For instance, the wattage consumption of a light bulb is measured directly at the light bulb, or branch circuit serving only lighting. This method assures absolute accuracy since the wattage measurement is that of only the light bulb, or lighting system.
2.4.14 Performance Guarantee	Trane performs annual reconciliation of energy unit savings per contracted guarantee. All savings belong to the customer with a minimum contracted value guaranteed by Trane. Contract specified utility rates are used to determine a dollar value for all units saved and reconciliation of any potential excess or shortfall. Excess or shortfalls are typically carried over from one year to the next and tracked in aggregate throughout the term of the agreement.
2.4.15 Additional Comments	None