



CITY OF SAN DIEGO

PURCHASING & CONTRACTING DEPT.
1200 Third Avenue, Suite 200
San Diego, CA 92101-4195

REQUEST FOR INFORMATION (RFI) COVER SHEET PROGRAM(S) TO MEET CITY'S 100% RENEWABLE ENERGY GOALS ADDENDUM B

Subject: Solutions to Support the City of San Diego's Goal of 100% Renewable Energy

Date Issued: September 23, 2016

Response Date and Time (Closing Date): October 28, 2016 at 3:00 p.m.

Questions/Comments Due Date: October 5, 2016 at 5:00 p.m.

City Contact Name and Information: Maureen Medvedyev, Principal
Procurement Specialist, Mmedvedyev@sandiego.gov

Respondent's Information:

Respondent Name: Colin Vorse

Address: 3731 Wilshire Blvd, Suite 600, Los Angeles, CA 90010

Telephone No. and E-Mail Address: 925-771-7207 / cvorse@s1inc.com

Website: www.sourceone-energy.com

Authorized Representative Name and Title: Colin Vorse/Business Development Manager

Representative's Original Signature: *Colin Vorse*

Date Signed: 10/31/16

TO BE CONSIDERED, RESPONDENT MUST :

- 1) Provide all requested information identified in this Cover Sheet.
- 2) Submit all requested information described in the RFI.
- 3) Submit all requested information on or before the Closing Date.



Solutions to Support the City of San Diego's Goal of 100% Renewable Energy

PREPARED FOR:



October 27, 2016

PREPARED BY:

SourceOne, Inc.
3731 Wilshire Blvd, Suite 600
Los Angeles, CA 90010
www.sourceone-energy.com



October 27, 2016

Maureen Medvedyev
Principal Procurement Specialist
City of San Diego
Purchasing & Contracting Department (P&C)
1200 Third Avenue, Suite 200
San Diego, CA 92101-4195

RE: Solutions to Support the City of San Diego's Goal of 100% Renewable Energy

1 Executive Summary

Dear Ms. Medvedyev,

Thank you for the opportunity to offer our qualifications in response to the RFI, *"Solutions to Support the City of San Diego's Goal of 100% Renewable Energy."*

SourceOne is a nationally recognized energy consulting firm providing highly specialized energy management, engineering, and owner's representative services to commercial, industrial, and municipal clients. Our company was established in 1997 with the expectation that large entities such as the City of San Diego would seek expert support and guidance as they navigate the evolving energy marketplace and face on-going challenges in regard to developing and maintaining sustainable, renewable and economical energy infrastructures.

We are one of the few energy services companies well versed in all phases of energy infrastructure planning and implementation, including; scoping studies, facility benchmarking, energy master plan development, facility-level energy efficiency audits, design and implementation of energy efficiency measures, and procurement of Renewable Energy as an ESCO Owner's Representative.

SourceOne recognizes that the City of San Diego's ambitious target of 100% renewable energy by 2035 will require a strategy that includes (1) a broad energy efficiency program which significantly reduces the City of San Diego's energy demand and (2) a design, implementation and procurement program encompassing a wide set of renewable power technologies and contracting methods. SourceOne recommends the following key focus areas be considered in a comprehensive energy master plan which will support the City in achieving its 2035 renewable energy target.

- Energy Master Plan for City Assets – Identify core targets with high energy intensity for reducing energy demand within City owned infrastructure
- Renewable Energy PPAs - Aggressive development of PPAs for renewable energy – both behind City meters and elsewhere within CA ISO can be used to physically offset non-renewable energy usage by the City
- Water and Wastewater Management - Analysis and implementation of carbon neutral projects involving waste and water management (e.g. digester gas to energy)
- Commercial, Industrial and Residential Assets
 - Energy Usage Reporting - Development of tiered reporting program requiring energy usage by square footage for large facilities to drive energy efficiency projects
 - Community Solar - Community solar to target low income residents with net metering credits



- Transportation – City and market partnership to develop and implement carbon-neutral public transit and private fleet vehicles
- Energy Project Funding - Policy Development to accelerate energy efficiency projects and customer-sited renewable power projects

In the short-term, the City will need to demonstrate a “lead by example” approach with aggressive public outreach to incentivize aggressive energy reduction and funding for renewable energy projects for non-City assets.

In support of this initiative, SourceOne offers the following core organizational strengths to the City of San Diego:

Energy Engineering and Power Systems Consulting Resources

- Subject matter experts in energy modeling and operating analysis
- Expert in commercial utility structures, project finance and funding methods
- Substantial experience performing Energy Master Plans, Cogeneration, Central Utility Plant, and Microgrid Feasibility Studies, Renewables and waste to energy evaluations, and Investment Grade Audits

Business Concept Development through Implementation

- Conduct and manage the development of large, complex energy infrastructure projects
- Life cycle vision of energy projects, with a focus on owner/operator requirements
- Turnkey development capabilities including: conceptual design, design phase management, procurement, construction management, startup/commissioning, operations and maintenance

Objective Technical Expertise from an Owner’s Perspective

- Subject matter experts in On-site generation, Central Utility Plants, and District Energy
 - Veolia owns and/or operates 1,200+ CHP facilities around the world (4,900+ MW)
 - Veolia owns and operates the largest portfolio of heating, cooling and cogeneration networks in North America
- Technical expert in anaerobic digester design and operation, and waste to energy projects
 - Veolia operates approximately 200 waste water treatment facilities across NA
- Substantial experience in project development, implementation, and operations and maintenance of CHP, central utility plants, district energy and waste to energy projects
- Vendor and technology neutral; solely aligned with our clients’ needs

Thank you again for the opportunity to submit this proposal. We are certain that our team has the breadth and depth of experience necessary to meet and exceed the City of San Diego’s objectives. We look forward to the opportunity to meet with you to discuss the City’s objectives in more detail. We have attached a firm profile and sample project case studies for your consideration. Please reach out to me with any questions or comments.

Sincerely,

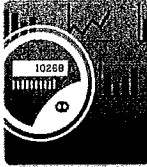
Colin Vorse, CEM (cvorse@s1inc.com)

Business Development Manager
3731 Wilshire Blvd, Suite 600
Los Angeles, CA 90010
M: 802.318.3471



2 Firm Profile

SourceOne Service Offerings:



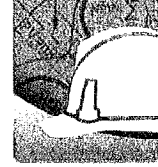
Energy Management

- Commodity Procurement and Management
- Utility Bill verification and management
- Online reporting
- Data Management
- Sub-metering and Tenant Billing



Energy Efficiency

- Energy Master Planning
- Energy Auditing
- Sustainability Planning
- Carbon Management
- Retro-commissioning/Re-commissioning
- Cogeneration
- Energy Grant Support
- LEED Certification



Engineering Services

- Feasibility Studies
- Conceptual Drawings
- Owner's Representative
- Project Management
- Testing and Commissioning
- Arc flash Studies
- Short Circuit Coordination

SourceOne Business Profile Information

Company Name	SourceOne, Inc. (DE)
Company Mission	To ensure the development and deployment of reliable, cost-effective energy infrastructures that support sustainable, reliable, and cost effective operations
Founded	1997, Incorporated in Delaware, USA
Size of Firm	100+ Personnel; Approx. \$20M annual revenue.
Federal Identification	04-3558868
Primary Office	7 Penn Plaza, 370 7 th Avenue, Suite 401 New York, NY 10001
Other Locations	Los Angeles, San Francisco, Boston, Philadelphia
Telephone Number	212.612.7600
Website	www.sourceone-energy.com
Parent Company	Veolia North America
Key Company Metrics	Veolia - manages nearly 900 district and local heating or cooling systems worldwide; owns and operates the largest U.S. district energy portfolio SourceOne - Performed site-assessments for over 300 million sqft of building space in NA SourceOne - Managed the implementation of over \$750 million of energy infrastructure capital projects



3 Selected Project Case Studies

Grand Central Terminal – New York, NY Energy Audits, ECM's, Project Design and Implementation, Construction Management Business Challenge

The iconic Grand Central Terminal building in midtown Manhattan is bordered by Lexington and Madison Avenues and E42nd and E48th Streets. As one of the nation's most historical landmarks, Grand Central Terminal is one of the busiest train stations in the country and the largest train station in the world by number of platforms. Totalling approximately 597,024 square feet, the terminal consists of 463,024 square feet of common areas and mechanical rooms and 134,000 square feet of retail and office space. Metro North Railroad (part of the Metropolitan Transportation Authority) provides services to approximately 750,000 people per day. Faced with aging building systems and rising energy costs, the facility required the assistance of energy experts to develop and implement a comprehensive energy upgrade.



SourceOne Solution

As an implementing contractor for the New York Power Authority's energy conservation programs, SourceOne was contracted to conduct energy audits, identify energy conservation measures (ECM's), provide project design, implementation, post-completion M&V and close-out services. All ECM's were identified during the feasibility study phase. A total of nine ECM's were developed:

- 1) Motor and VFD upgrades.
- 2) Lighting upgrades.
- 3) Controls upgrades.
- 4) Air handler upgrades.
- 5) Steam system modifications.
- 6) Compressed air system modifications.
- 7) Chiller plant replacement.
- 8) Cooling tower improvements.
- 9) Metering for verification / tenant sub-metering.

Results

In order to maximize efficiencies, SourceOne recommended the project to be implemented in two phases:

- Phase 1: ECM's 1, 2, 6, and 9 (ECM's 1, 6, and 9 were partially constructed for the first phase).
- Phase 2: ECM's 1, 3, 4, 5, 6, 7, 8 and 9.

With project costs totaling approximately \$23 million, the improvements will lead to significant energy savings when completed. With a simple payback of 7 years, Grand Central Terminal will save approximately \$3.3 million a year in energy costs.

Client Contact

Mr. Peter Bass, Capital Director, Metropolitan Transportation Authority – 212.878.7356



BioMed Realty

Discover here.

National Energy Procurement and Energy Management *Business Challenge*

With a portfolio comprising approximately *13.2 million rentable square feet*, BioMed Realty (BMR) is a national real estate firm for biotechnology and pharmaceutical companies, scientific research institutions, and government agencies. With nearly *100 sites* located predominantly in the major

U.S. life science markets of Massachusetts, California, New York, Maryland, Pennsylvania, Washington, New Jersey, North Carolina, Colorado, and Delaware, BMR required strategic advice for procuring energy at each of its properties to facilitate accurate budgeting. Coordinating with multiple suppliers and procuring energy across regional energy markets is complex, time-consuming and requires multi-faceted, national energy expertise. In addition, BMR also sought advanced metering, sub-tenant billing, and energy tracking and reporting via an energy management system to best leverage energy efficiencies and recover tenant costs.

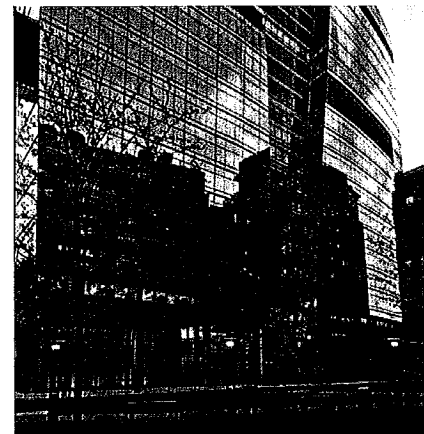
SourceOne Solution

Following a competitive bidding process, BMR selected SourceOne to provide energy consulting, energy procurement, tenant utility billing and metering, utility invoice processing, energy tracking and reporting, and budgeting support for BMR's entire U.S. portfolio. The contract also incorporates the use of EMSys, SourceOne's web-based energy management software used for tracking and reporting energy use, utility invoice processing, sub-tenant billing, and to facilitate budgeting. This national contract links SourceOne's integrated service offerings across energy management and has yielded efficiencies and budget stability across the BMR portfolio. Despite growing energy volatility in the marketplace, differences in regional energy infrastructure, and varied market constraints, SourceOne has helped negotiate a number of successful electricity and natural gas supply contracts for BMR in diverse energy markets.



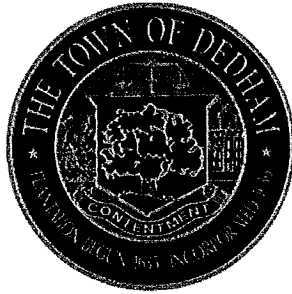
Results

SourceOne's market knowledge and comprehensive procurement strategy across multiple energy markets, combined with the transparency provided by EMSys, has enabled greater visibility for cost effective management of utility expenses. By streamlining all energy management activities through SourceOne, BioMed Realty will achieve synergies across its portfolio to capitalize on energy efficiencies, streamlined cost recovery, and improved budgeting.



Client Contact

Mr. Kevin Slein, VP Facilities – 858.663.5848



Town of Dedham, MA – Energy Audits & ESCO Owner's Representative

Business Challenge

The Town of Dedham sought energy consulting advisory services in 2009 to assess the energy efficiency of several school and town buildings, reduce energy costs, and lessen the Town's carbon footprint.

SourceOne Solution

SourceOne was initially contracted by the Town of Dedham to prepare an energy assessment report for several school and municipal buildings, including the high school, several elementary schools, the town hall, the main fire and police stations, two libraries, the recreation center, and the Endicott Estate. The assessment included a site facility assessment, interviews with building management, collection of building energy consumption data, and assessing the mechanical and electrical systems and building envelope. Based on this analysis, SourceOne identified potential energy conservation measures (ECMs) for each facility, recommended improvements, estimated capital and operating expenditures for implementation, and the expected return on investment for each measure. Significant opportunities were identified to improve energy management, including upgrades or replacements for windows, HVAC, electrical distribution system, hot water heating conversion, lighting fixtures and controls, roofing, and a new Building Management System (BMS).



Results

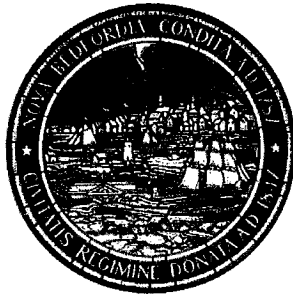
SourceOne is now providing comprehensive Owner's Representative consulting services for a ***\$10 million Performance Contract***. As the Town's representative, SourceOne has completed a discrete set of strategic services including:

- ESCO bidding/contract coordination (RFP development/coordination, conducting interviews with short-listed firms, etc.)
- Verification of the investment grade audit
- Negotiation of Energy Service Agreement
- Energy benchmarking
- Construction oversight
- Commissioning support
- Ongoing M&V support services

The engagement has led to ***14 buildings under improvement for projected savings of \$2,000,000.***

Client Contact

William Keegan, Town Administrator – 781.751.9100



City of New Bedford, MA – ESCO Owner's Representative *Business Challenge*

The City of New Bedford sought support from an Energy Services Company (ESCO) to help reduce the carbon footprint and operating costs associated with its facilities and infrastructure. While contracting with an ESCO can be an excellent way to reduce energy costs with minimal upfront capital investment, negotiating an Energy Master Service Agreement (EMSA) can be challenging. An EMSA is a performance-based contract that governs how savings resulting from the implementation of energy conservation measures (ECMs) are shared between the ESCO and the counterparty. The EMSA includes terms regarding measurement and verification of savings as well as penalties for failure to perform. The City needed an expert representative to protect its interests.

SourceOne Solution & Results

New Bedford hired SourceOne to serve as its Owner's Representative throughout the process of engaging an ESCO. SourceOne assisted with the development and evaluation of the Request for Qualifications (RFQ), final ESCO selection, and provided oversight during the ESCO's preliminary energy audits. SourceOne provided high-level assessments of 38 municipal facilities to develop a list of potential Energy Conservation Measures (ECMs) that should be considered as part of the EMSA.

The ESCO performed Investment Grade Audits (IGA) on selected ECMs. These IGAs incorporate design, project costs and a savings guarantee that is used to procure project financing. SourceOne objectively evaluated the IGAs to ensure that each ECM is technically feasible and financially viable. SourceOne's review served as the basis for the development of the EMSA contract, which included **over 60 municipal facilities**, including; schools, city water/waste water facilities, police and fire stations, pump stations and street light upgrades.

The ESCO is currently implementing the ECMs under SourceOne's oversight. During this phase of the project, SourceOne is acting as the city's **Quality Assurance/Quality Control Agent**. As the ECMs are implemented, SourceOne's role transitions to **measurement and verification**. This includes verifying proper commissioning of equipment and the accuracy of the ESCO's M&V analysis to ensure the city is achieving the guaranteed savings levels. When completed, the efficiency projects will make the city more habitable and improve its infrastructure while reducing operating and maintenance costs.

Specific projects planned within in the EMSA include: Conversion of 15+ buildings heated with oil to natural gas; upgrades of 8,000 streetlights to LED technology; Assessment of 30+ pump stations; Exploration of biomass heating for two buildings; Exploration of a Combined Heat and Power (CHP) plant installation at two facilities; Installation of emergency generation microgrids at various campus settings.

Client Contact / Reference

Scott Durkee, Director of the Energy Office – 508.991.6188



RELATED

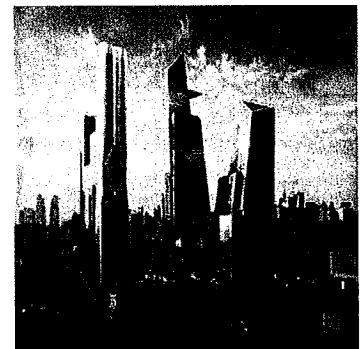
Owner's Representative - Design, Procurement, Pre-Construction, Construction, Startup and Commissioning

Business Challenge

SourceOne has provided engineering services to Related Management in its efforts to establish an effective long term strategy to secure a cost effective and sustainable energy source for the *Hudson Yards Eastern Rail Yard Development* in Manhattan – *the largest real estate development in New York City*. Related requested SourceOne's services to develop their combined heat and power (CHP) plant in the most economical manner while maintaining a high level of service to the Hudson Yards development team.

SourceOne Solution and Results

As the energy consultant, SourceOne developed the design for a *13MW reciprocating gas engine CHP plant* will be installed on the 10th floor of the Retail Podium and provide electricity to three buildings and thermal energy (hot and chilled water) to five buildings. With *(4) 3,300 kW reciprocating natural gas engines, (4) 650-ton absorption heater-chillers* and *(2) 1,250-ton electric centrifugal chillers*, the plant will distribute *electricity, hot and chilled water to 7 million square feet* of mixed-use space. The plant will be capable of operating both in parallel with the local utility or in *island mode* as a viable independent energy source in the event of a grid outage.



Through SourceOne's CHP expertise, the plant was designed to maximize the sustainability of energy services, reduce overall utility expenses and allow increased budget control and predictability.

As the project manager and owner's engineer, SourceOne is supporting this project from initial conception through startup and commissioning. SourceOne's responsibilities include:

- Project Management and Construction Oversight of Central Utility Plant
- Economic Cash-Flow Projections and Sustainability Evaluation
- Project Schedule Development and Management
- Utility and Regulatory Coordination
- Major Equipment and Trade Contractor Procurement Support
- Central Utility Plant Startup and Commissioning

The result will be a sustainable, long-term energy supply solution for the Hudson Yards, the largest real estate development in New York City.

Client Contact / Reference

Nicholas Lanzillotto, VP MEP Development – 212.492.5244