Request of Qualifications – RFQ #946-11316

Engineering Services – Energy Performance Contracting

February 27, 2014 at 2:00 pm EST

Submitted to

Fort Lauderdale City Hall
Procurement Services Division
100 N. Andrews Avenue, #619
Fort Lauderdale, FL 33301

Submitted by

Chevron Energy Solutions Company
A Division of Chevron U.S.A. Inc.
800 Corporate Drive, #706
Fort Lauderdale, FL 33334

Tracie Lampton
Southeast Regional Sales Manager

This proposal, in whole or in part, is to be used only for evaluation purposes. If the proposal is accepted and a contract entered into then, to the extent, federal or state law requires disclosure, advance notice to Chevron Energy Solutions Company is requested with a right to oppose or seek to narrow the disclosure. The data subject to this restriction is contained in all sheets marked, “Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal or quotation.”

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To ensure compliance with requirements imposed by the IRS under Circular 230, we inform you that any U.S. federal tax advice contained in this communication (including any attachments), unless otherwise specifically stated, was not intended or written to be used, and cannot be used, for the purpose of (1) avoiding penalties under the Internal Revenue Code or (2) promoting, marketing or recommending to another party any matters addressed herein. The information contained herein is general in nature and based on authorities that are subject to change. Chevron Energy Solutions recommends that you consult your tax adviser to understand its applicability to specific situations.

Chevron Energy Solutions

Table of Contents

Per the requirements of the RFQ we have been practical and have printed double-sided for the fifty page count

2. Proposal Letter / Letter of Interest / Proposal Signature Page

Provide a Letter on Interest indicating the project for which the firm is applying, and your firm's commitment to the project. Provide firm's legal name, points of contact information (names, telephone, FAX numbers and E-Mail addresses). Complete and add Proposal Signature Form.

Our Letter of Interest and the completed/signed Proposal Signature Page are provided in this Section.

Tracie Lampton
Southeast Regional Sales Manager

Chevron Energy Solutions Company
A Division of Chevron U.S.A. Inc.
800 Corporate Drive, Suite 706
Fort Lauderdale, FL 33334
Phone 954 229 3601
Fax 954 229 3632
tlmpn@chevron.com

February 27, 2014

Fort Lauderdale City Hall
Procurement Services Division
100 N. Andrews Avenue, #619
Fort Lauderdale, FL 33301

Re: REQUEST FOR QUALIFICATIONS – RFQ #946-11316
ENGINEERING SERVICES – ENERGY PERFORMANCE CONTRACTING

Dear City of Fort Lauderdale Selection Committee:

The City of Fort Lauderdale (City) has clearly demonstrated its commitment to reducing the City's carbon footprint, modernizing your facility infrastructure and expanding your sustainability efforts with the issuance on this RFQ. Taking advantage of the State of Florida's performance contracting program is smart and will provide a substantial financial boost to the City's master plan.

We are pleased to be considered as the Energy Services Provider for this performance contract and know there are great benefits available to City of Fort Lauderdale through this program. We strive daily to the be the energy company most admired for its people, partnership and performance and are confident a partnership with us will ensure the City's sustainability goals can be realized. We applaud the City's astute decision to utilize a city-wide comprehensive guaranteed savings program to improve the City's infrastructure with a fully comprehensive program that will make an immediate impact to reducing carbon emissions.

We want to help the City formulate a unique program that goes beyond just energy savings to a fully comprehensive transformation strategy that aligns to the City's *"Fast Forward Fort Lauderdale: Our Vision 2035"*. The results of the partnership will be that the City will save money and leverage those savings to pays for much needed improvements and reduce emissions. But our commitment to the City is bigger than simply a guaranteed energy savings program.

Our commitment includes education and outreach, enhance public safety, stimulate the local economy, employ quality principles and best-in-class training and application of energy technologies for the city, working hand in hand with local minority businesses to advance their skills and knowledge of energy efficiency and green tech, significantly impact GHG reduction and further the commitment of the Southeast Florida Regional Climate Change Compact, and create lasting change for our community.

As a premier engineering-based ESCO with offices throughout the U.S, we have 39 years of experience working with public institutions to deliver energy-related facility and utility infrastructure improvement projects. **From the inception of your project to the on-going monitoring of your guaranteed energy savings our local office in Fort Lauderdale will be able to provide you service where we have been located for over 15 years.**

We have been Silver Sponsors of the Southeast Florida Regional Climate Change Compact and Broward P3 Eco Challenge, and Sponsored Florida's Serve to Preserve Global Climate Change Summits under Governor Crist – so we share the same vision for our community as the City of Fort Lauderdale. We have the highest accreditation with NAESCO and have been an approved ESCO on the Florida State Term Contract since its inception.

Through the implementation of an energy savings performance contracting program, the City will gain access to Chevron best practices, world-class management processes and technology applications to help them achieve their mission critical goals. We will work with the City to deploy a strategy that will help position the City as a leader among cities in the region. This approach will address the City's need for environmental and facility improvements, survey water and wastewater savings opportunities and map out a communications plan that will let the stakeholders understand each step of the program and communicate the success. This process will assist the City in their vision as defined in *"Fast Forward Fort Lauderdale"*

Chevron ES has designed and implemented innovative transformative programs for cities and municipals that have reduced costs, increased revenue, and improved organizational performance. Renewable energy, energy savings and water conservation serve as the foundation of our programs, helping cities take tangible steps toward sustainability goals while creating new savings streams that can redirected into the local economy.

Here are a just a few examples:

- At Broward County Florida's Water and Wastewater plant we are implementing an innovative Waste to Green Renewable project that will provide over 1.6 megawatts of power from a waste source of methane gas and restaurant grease traps. We are implementing the installation of a new fats, oil and grease (FOG) receiving station and a new biogas cogeneration system that will produce over $1M in savings for the county, as well as reducing emissions. Instead of excess methane being flared and old restaurant grease in the waste stream – both will be utilized to generate electricity for the plant. In addition, we are implementing a nature green path incorporating information regarding the project as well as to showcase drought tolerant plantings and the benefits of reuse water that will serve as an education and outreach for the community.

- Our AMR projects have significantly helped municipals improve revenue and reduce operational costs. For example, we implemented a $13M comprehensive performance contract at the City of Lawton, Oklahoma that included retrofitting over 29,000 water meters. Results of the City's meter accuracy in Year One, was **99.5%** and increased water revenue was measured at $841,319. The City's Year 2 meter accuracy was **99.6%** with increased water revenue measured at $793,528. That is a significant revenue increase for the City. In addition we have helped implement education programs to ensure water customers are informed and understand the benefits the program has for them – which are critical components for any AMR program.

- The City of Livermore, California will be incorporating solar installations to generate clean, renewable power for the City's Civic Center, main library, airport, and other municipal facilities. Combined with a range of energy efficiency measures aimed at slashing utility and maintenance costs, the City anticipates savings that can be reinvested into municipal services. The central component of the energy efficiency program, the retrofit of 7,000 streetlights to LED technology, is expected to deliver millions in savings to the City, due to lower utility and maintenance costs. In addition we implemented a community outreach program call The Capacity Project. City Mayor John Marchand stated: *"We focus on quality workmanship, best materials for the application and how the installation will provide savings promised. This is the key difference to normal construction projects and we are monitoring all construction efforts to meet these goals. In addition, at the end of the project activities of commissioning and measurement & verification will confirm the installation is working properly and producing the energy savings. "*

- At Alameda County's Santa Rita Jail we implemented solar and a fuel cell, as well as one of the country's largest microgrids. This is a first-of-a-kind project involving multiple technologies and partners, including Chevron, the U.S. Department of Energy (DOE), the California Energy Commission and the California Public Utilities Commission. This provides the facility with a self-sustaining grid that integrates all of the jail's onsite generation with energy storage for uninterrupted power—a critical factor in such an environment. In the event of a disturbance to the utility grid, the jail can automatically disconnect from the grid and operate under its own power until reliable power from the local utility is restored.

We view sustainability as a means to increase a city's capacity to achieve key goals around economic development, workforce preparedness and community engagement, and our team has developed a series of strategies that link these priorities into a cohesive plan for city leaders to put into action. The City will see by our response that we are an engineering-based ESCO with a successful track record, significant experience in city/county facility energy projects, and a deep bench of engineering talent dedicated to the region and the State of Florida. We have the same dedication of purpose to providing you with a successful ESPC project.

We understand that this is **YOUR** program and we will work in concert with you to realize your expectations for what this program can achieve. From our viewpoint of evaluating some of your buildings – we believe the following are the key areas for the City of Fort Lauderdale to maximize energy and water savings beginning with potable and wastewater processes including water meters and the utilization of AMR. Water and wastewater processing is some of the most intensive energy usage for a municipality. Chevron employs a center of excellence comprised of water and wastewater process engineers with over 20 years of experience in that specialized discipline.

We also have on our team: Hazen and Sawyer who are working with us on our project for Broward County and have implemented projects for the City as well as other local municipals water and wastewater divisions. Renewable technology including solar is an emerging trend across the country for reducing electrical usage. We are the country's largest integrated solar installer and will work with you to evaluate solar where it's economically feasible under FPL's rate structure.

Upgrading street lights utilizing LED technology: We have implemented numerous street light and traffic light projects. At the City of Jacksonville we replaced over 30,000 traffic lights to LED generating significant savings. We have partnered with a local contractor for LED street lighting technology that has installed for the City a demonstration project.

Other strategies are replacing aged and inefficient equipment within your facility infrastructure such as indoor and outdoor lighting, heating and cooling equipment, kitchen equipment, water closets, faucets and showers, irrigation control, utilize better operational controls strategies and implement our community outreach program, The Capacity Project.

We have partnered with the Broward Minority Business Council who will help us seek qualified local small business enterprises to ensure we meet and exceed your minority participation requirements as well as ensure we are stimulating the local economy by staffing our project with local qualified contractors. We have assembled a comprehensive team that is ready to go and hit the ground running.

We are an ESCO that has the capabilities and track record in all of those disciplines and we employ a vendor and fuel/utility neutral approach. We are not a utility nor affiliated with a utility or manufacturer of equipment – and therefore can dig deep and implement a program that will give you the **maximum savings** and also provide technology that is **most current, cost effective and efficient** for the City. The more savings we can generate at the best value the more the City wins.

We are excited about the opportunity to achieve for the City a comprehensive transformation strategy that will:

1- Impact the Local Economy
2- Generate Operational Savings
3- Modernize City Infrastructure
4- Support Public Safety
5- Reduce GHG Emissions and align with "*Fast Forward Fort Lauderdale*" Initiatives
6- Create Lasting Change

We are confident the City will receive significant ROI for this project and you can count on Chevron ES, a trusted partner to work diligently to ensure we achieve a successful project for the City.

Shown below is the primary point of contact for this RFQ and future correspondence:

Tracie Lampton
Southeast Regional Director
Tel: 954 229 3601
Fax: 954 229 3632
Email: tlmp@chevron.com

On behalf of Chevron ES we want to express our appreciation for allowing us to provide this proposal and we would feel privileged to be chosen as your ESCO partner in this important endeavor.

Sincerely,

Tracie Lampton

Tracie Lampton
Southeast Regional Director

Attachment: Executed Proposal Signature Page

BID/PROPOSAL SIGNATURE PAGE

How to submit bids/proposals: Proposals must be submitted by hard copy only. It will be the sole responsibility of the Bidder to ensure that the bid reaches the City of Fort Lauderdale, City Hall, Procurement Services Division, Suite 619, 100 N. Andrews Avenue, Fort Lauderdale, FL 33301, prior to the bid opening date and time listed. Bids/proposals submitted by fax or email will NOT be accepted.

The below signed hereby agrees to furnish the following article(s) or services at the price(s) and terms stated subject to all instructions, conditions, specifications addenda, legal advertisement, and conditions contained in the bid. I have read all attachments including the specifications and fully understand what is required. By submitting this signed proposal I will accept a contract if approved by the CITY and such acceptance covers all terms, conditions, and specifications of this bid/proposal.

Please Note: All fields below **must** be completed. If the field does not apply to you, please note N/A in that field.

Submitted by: _____ 2/25/14
(signature) (date)

Name (printed) Laura Thompson, P.E. Title: East Area General Manager

Company: (Legal Registration) Chevron Energy Solutions Company, a division of Chevron U.S.A., Inc.

CONTRACTOR, IF FOREIGN CORPORATION, MAY BE REQUIRED TO OBTAIN A CERTIFICATE OF AUTHORITY FROM THE DEPARTMENT OF STATE, IN ACCORDANCE WITH FLORIDA STATUTE §607.1501 (visit http://www.dos.state.fl.us/).

Address: 800 Corporate Drive, Suite 706

City Fort Lauderdale State: FL Zip 33334

Telephone No. 954 229 3601 FAX No. 954 229 3632 Email: tlmp@chevron.com

Delivery: Calendar days after receipt of Purchase Order (section 1.02 of General Conditions): _____

Payment Terms (section 1.04): _____ Total Bid Discount (section 1.05): _____

Does your firm qualify for MBE or WBE status (section 1.09): MBE _____ WBE _____

ADDENDUM ACKNOWLEDGEMENT - Proposer acknowledges that the following addenda have been received and are included in the proposal:

Addendum No.	Date Issued
1	February 17, 2014
2	February 25, 2014

VARIANCES: State any variations to specifications, terms and conditions in the space provided below or reference in the space provided below all variances contained on other pages of bid, attachments or bid pages. No variations or exceptions by the Proposer will be deemed to be part of the bid submitted unless such variation or exception is listed and contained within the bid documents and referenced in the space provided below. If no statement is contained in the below space, it is hereby implied that your bid/proposal complies with the full scope of this solicitation. HAVE YOU STATED ANY VARIANCES OR EXCEPTIONS BELOW? BIDDER MUST CLICK THE EXCEPTION LINK IF ANY VARIATION OR EXCEPTION IS TAKEN TO THE SPECIFICATIONS, TERMS AND CONDITIONS. If this section does not apply to your bid, simply mark N/A in the section below.

Variances:

See attached sheet

revised 11-29-11

VARIANCES:

1. The draft "Agreement f" appears to be a general "Consultant" contract under the CCNA statute and contains no references to energy performance contracting *fs*489.145 (which incorporates the CCNA statute *fs*287.055). The City has responded to this question by stating that the City desires a comprehensive performance contract including engineering, investment grade audit of facilities, implementation of energy conservation measures with an energy guarantee and ongoing measurement and verification by a qualified ESCO. This variance is just to restate our exception to the draft contract provided.

2. In responding to Item 9 of Section IV – Submittal Requirements, Chevron is self-insured through its Self-Administered Claims Program: the customer is issued a SACP letter (in lieu of a Certificate of Insurance) in which Chevron self-assumes the insurance requirements of the City's contract.

3. **Creditworthiness** - If, at any time, Customer's credit rating falls below investment grade as defined by Moody's Investors Services (or other nationally-recognized independent rating agency), Customer agrees to provide Chevron ES with current information regarding its creditworthiness upon the request of Chevron ES. At its sole option, Chevron ES may then require Customer to provide security satisfactory to Chevron ES, and the Work may be withheld until such security is received. If Customer deposits the contract amount into a third-party escrow account with an escrow agent and agreement acceptable to Chevron ES, then the terms of this paragraph are not applicable.

4. **Warranty** - Chevron ES warrants its workmanship provided hereunder, including its subcontractors' workmanship, shall be free of material defects for a period of one (1) year from the date of Substantial Completion as indicated on the executed Certificate of Substantial Completion, or the date of Beneficial Use as indicated on the executed Certificate of Beneficial Use ("Chevron ES Warranty"). All warranties hereunder, including without limitation those for defects, whether latent or patent, in design, engineering, or construction, shall terminate one (1) year from the date of Substantial Completion or Beneficial Use; and thereafter, Chevron ES will have no liability for breach of any warranty or for any latent or patent defect of any kind. Equipment and material warranties that exceed the one (1) year warranty period shall be provided directly by the equipment and/or material manufacturers and such warranties shall be assigned directly to the Customer, after the one (1) year period. During the one (1) year Chevron ES warranty period, Chevron ES shall be the Customer's agent in working with the equipment and material manufacturers in resolving any equipment or material warranty issues. Other than for lamps and ballasts, any material defects that are discovered within the one (1) year Chevron ES warranty period, Chevron ES, or Chevron ES' subcontractors, will correct its defects, and/or Chevron ES will work with the equipment or material manufacturer as the Customer's agent to facilitate the manufacturer's correction of the equipment or material defect. For typical industry standard lamp and ballast failures during the one (1) year Chevron ES warranty period, the Customer will replace such failed lamps/ballasts with replacement stock provided by Chevron ES, provided, however, Customer shall return the failed lamps/ballasts to the manufacturer in order to ensure that sufficient quantities of replacement stock are available during the one year warranty period. Such warranty services shall be performed in a timely manner and at the reasonable convenience of the Customer. This warranty expressly excludes any remedy for damage or

defect caused by improper use, improper or inadequate maintenance, operations of the installed equipment by users other than Chevron ES or its subcontractors, corrosion, erosion, deterioration, abuse, modifications or repairs not performed by an authorized Chevron ES subcontractor, improper operation, or normal wear and tear under normal usage. If a warranty issue arises on any equipment or material installed after the one (1) year Chevron ES warranty period, and the equipment or material has a warranty period that exceeds one (1) year, the Customer shall contact the manufacturer directly to resolve such warranty issues and Customer acknowledges that the manufacturer shall have sole responsibility for such issues. Under no circumstances will either Party be liable to the other Party for any special, indirect, incidental, consequential or punitive damages, however caused and on any theory of liability.

5. **Performance and Payment Bonds** - Prior to commencing Work under this Contract, Chevron ES shall furnish a Performance Bond in an amount equal to one hundred percent (100%) of the Contract Amount, and a Payment Bond to guarantee payment of all claims for labor and materials furnished, in an amount equal to one hundred percent (100%) of the Contract Amount (collectively "Contract Bonds"). The Contract Bonds shall be maintained in full force and effect until Final Completion; provided that upon the achievement of Substantial Completion, the value of the Contract Bonds shall be reduced to the value of the Retainage being withheld by Customer. The bonds are not being furnished to cover the performance of any energy guaranty or guaranteed savings under this Contract. Customer agrees that upon Final Completion, the Performance and Payment Bonds shall be released and all obligations arising thereunder shall be terminated.

Submitted by:

Chevron Energy Solutions Company, a division of Chevron U.S.A., Inc.

3. Qualifications of the Firm

Respondents must submit a complete Standard Form 330 and provide any other documentation that demonstrates their ability to satisfy all of the minimum qualification requirements. Indicate the firm's number of years of experience in providing the professional services as it relates specifically to the project. Indicate the firm's initiatives towards its own sustainable business practices that demonstrate a commitment to conservation. Indicate business structure, IE: Corp., Partnership, LLC. Firm should be registered as a legal entity in the State of Florida; Minority or Woman owned Business (if applicable); Company address, phone number, fax number, E-Mail address, web site, contact person(s), etc. Relative size of the firm, including management, technical and support staff; licenses and any other pertinent information shall be submitted. Submittals that do not contain such documentation may be deemed as non-responsive.

Chevron: Social Responsibility and Sustainability

There's a growing public concern about climate change and our planet. We share this concern.

At Chevron, we are taking significant steps to reduce greenhouse gases (GHGs) without undermining the growth of the global economy. The use of fossil fuels to meet the world's energy needs contributes to an increase in GHGs—mainly carbon dioxide and methane—in Earth's atmosphere. We made a long-term commitment to improve energy efficiency in our day-to-day activities, which will help us manage our carbon emissions. We conduct inventories of our emissions and use innovative technologies to continually improve the efficiency of energy use in our operations. We also assess GHG emissions in our capital projects.

Chevron consistently ranks among the best in the industry with regard to disclosing information about our carbon emissions. In the 2012 report from the CDP (formerly known as the Carbon Disclosure Project), we ranked in the top tier of the energy sector. Our score of 88 was two points higher than the previous year's score, showing that we are on track in managing and reducing emissions.

A state-of-the-art Web-based application known as the Chevron GHG and Energy Reporting System helps us manage our greenhouse gas footprint across the entire enterprise. We continue to improve this system by adding reporting mechanisms for electronic reporting to the U.S. Environmental Protection Agency. Recognizing the importance of independent review and verification of our emissions inventory process and results, we engaged Ernst & Young to conduct a third-party verification of our operated assets' GHG emissions for 2007 through 2009. We have begun a new independent review of our emissions inventory process and results from 2010 through 2012.

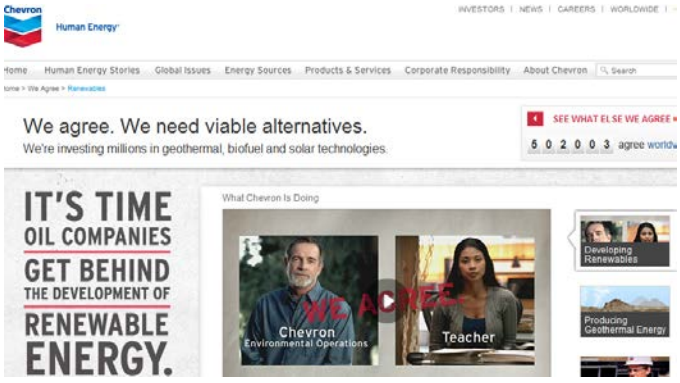
- Reductions in Flaring - As a member of the World Bank-led Global Gas Flaring Reduction Partnership, Chevron has helped develop country-specific plans to minimize gas flaring. We seek feasible opportunities to reduce flaring and venting in our global operations. Since 2003, we reduced the volumes of gas we flare and vent in Chevron's upstream operations, as defined by Chevron Upstream's Flaring & Venting Environmental Performance Standard, by approximately 41 percent. For the same period of time, we reduced the greenhouse gas emissions from flaring and venting by approximately 20 percent based on equity share of all Chevron's interests globally.
- Carbon Sequestration - Chevron Australia Pty Ltd continues construction of the Gorgon Liquefied Natural Gas Project on Barrow Island, off the northwest coast of Australia. Gorgon includes one of the largest carbon dioxide capture and storage projects in the world. The carbon dioxide present in the natural gas will be injected into a sandstone reservoir more than 1.5 miles (2.4 km) below Barrow Island. This carbon dioxide is extracted from the natural gas as a part of normal gas-processing operations and would otherwise have been vented to the atmosphere. Over the life of the project, approximately 120 million tons of carbon dioxide is expected to be safely injected.

- Efficiency Gains Through Cogeneration - Worldwide, Chevron operates cogeneration units at refineries, production facilities and other sites, with a combined electrical generating capacity of about 3,500 megawatts. By simultaneously generating electricity and heat from a single fuel source, cogeneration units are about twice as efficient as the average local utility company.
- Energy Efficiency - We believe energy is precious. That's why we strive to use it as efficiently as possible in our own operations. We're also committed to helping other institutions, including many schools, improve their energy efficiency. Of all the ways to meet the world's expanding energy needs, efficiency and conservation are the cheapest and most beneficial to the environment. Using energy more efficiently helps reduce carbon emissions, lower energy costs and preserve our finite natural resources.
- Generating Electricity More Efficiently - At refineries, production facilities and other sites around the world, we have built cogeneration units that use a fuel-efficient, environmentally friendly process to produce steam and electric power simultaneously. The cogeneration process is capable of producing electricity twice as efficiently as the processes used by local utility companies.
- Public Awareness for Conservation and Social Responsibility - Chevron launched a public awareness campaign to educate communities on the benefits of conservation and social responsibility. Please view our website and tell us if "You agree" http://www.chevron.com/weagree/

To learn more about Chevron's sustainability program and view videos of our efforts, please go to our website, http://www.chevron.com/corporateresponsibility/environment/climatechange/

To learn more about Chevron's corporate responsibility practices please go to our website to view our report http://www.chevron.com/documents/pdf/corporateresponsibility/Chevron_CR_Report_2012.pdf

To view our annual report, please go to http://investor.chevron.com/phoenix.zhtml?c=130102&p=irol-irhome



Standard Form 330 is provided at this Tab completed with all the information required for this item in the RFQ.

4. Qualifications of the Project Team

List the members of the project team. Provide a list of the personnel to be used on each project and their qualifications. A brief resume including education, experience, licenses and any other pertinent information shall be included for each team member, for each project, including subconsultants to be assigned to each project. Provide any other documentation that demonstrates their ability to satisfy all of the minimum qualification requirements. Submittals that do not contain such documentation may be deemed non-responsive. ***This information must be included in the Standard Form 330 submittal.***

Standard Form 330 is provided at this Tab completed with all the information required for both of these items in the RFQ.

ARCHITECT - ENGINEER QUALIFICATIONS

PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*

Engineering Services-Energy Performance Contracting Fort Lauderdale, FL 33301

2. PUBLIC NOTICE DATE	3. SOLICITATION OR PROJECT NUMBER
02/10/2014	RFQ #946-11316

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

Tracie Lampton Southeast Regional Sales Manager

5. NAME OF FIRM

Chevron Energy Solutions Company, a division of Chevron U.S.A., Inc.

6. TELEPHONE NUMBER	7. FAX NUMBER	8. E-MAIL ADDRESS
954 229 3601	954 229 3632	tlmp@chevron.com

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors.)

	(Check) PRIME	(Check) J-V PARTNER	(Check) SUBCONTRACTOR	9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
a.	✘			Chevron Energy Solutions Company, a division of Chevron U.S.A., Inc. ☒ CHECK IF BRANCH OFFICE	800 Corporate Drive Suite 706 Fort Lauderdale, FL 33334	Energy Services Company (ESCO)
b.			✘	Lighting Dynamics, Inc. ☒ CHECK IF BRANCH OFFICE	7835 West commercial Boulevard Tamarac, FL 33351	Lighting installation
c.			✘	Enviro Energy Partners LLC ☒ CHECK IF BRANCH OFFICE	2195 N Powerline Road Suite #1 Pompano Beach, FL 33069	Lighting installation
d.			✘	Hazen & Sawyer ☒ CHECK IF BRANCH OFFICE	4000 Hollywood Boulevard, Suite 750N Hollywood, FL, 33021	Wastewater engineering
e.			✘	Hill York ☒ CHECK IF BRANCH OFFICE	2125 S. Andrews Avenue Fort Lauderdale, FL 33316	Mechanical & Controls
f.			✘	I-Star Energy Solutions ☒ CHECK IF BRANCH OFFICE	5445 Murrell Road Suite 102 Viera, FL 32955	Building Envelope / Construction

D. ORGANIZATIONAL CHART OF PROPOSED TEAM ☒ *(Attached)*

ARCHITECT - ENGINEER QUALIFICATIONS

PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*

Engineering Services-Energy Performance Contracting Fort Lauderdale, FL 33301

2. PUBLIC NOTICE DATE	3. SOLICITATION OR PROJECT NUMBER
02/10/2014	RFQ #946-11316

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

Tracie Lampton Southeast Regional Sales Manager

5. NAME OF FIRM

Chevron Energy Solutions Company, a division of Chevron U.S.A., Inc.

6. TELEPHONE NUMBER	7. FAX NUMBER	8. E-MAIL ADDRESS
954 229 3601	954 229 3632	tlmp@chevron.com

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors.)

	(Check) PRIME	(Check) J-V PARTNER	(Check) SUBCONTRACTOR	9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
g.			X	Broward County Minority Builders Coalition, Inc. ☒ CHECK IF BRANCH OFFICE	665 SW 27 Avenue Suite 16 Fort Lauderdale, FL 33312	Building Envelope / Construction
b.				☐ CHECK IF BRANCH OFFICE		
c.				☐ CHECK IF BRANCH OFFICE		
d.				☐ CHECK IF BRANCH OFFICE		
e.				☐ CHECK IF BRANCH OFFICE		
f.				☐ CHECK IF BRANCH OFFICE		

D. ORGANIZATIONAL CHART OF PROPOSED TEAM ☒ *(Attached)*

City of Fort Lauderdale

RFQ #946-11316

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Tracie Lampton	Coordinator of Transformation Strategy Team	20	13

15. FIRM NAME AND LOCATION *(City and State)*

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
University of Alabama at Birmingham B.A. Communications, Minor Political Science	N/A

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Member: American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) and ESCO Coalition Member -Georgia, Florida

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Broward County Water and Wastewater Florida	2010	2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Size: 424,665 S.F. ECMs: new FOG receiving facility; digester improvements; gas cleanup & handling; new biogas cogeneration system; heat loop; electrical and control integration; green path/kiosk. Project Value:$18.1 million Role:Management

b.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
North Carolina Central University	Durham, North Carolina	2011	2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Size: 11 bldgs ECMs:Boilers, chillers, pumps, primary systems, water conservation, lighting, HVAC, controls, piping/steam distribution Project Cost: $6.3MM Role: Management

c.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Miami-Dade County	Miami, Florida	2002	2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Size: 2 buildings ECMs: demolition,removal and disposal of existing chiller, controls, condenser water piping and cooling tower; installation of high efficiency air-cooled chiller and auxiliary equipment and installation of 600 ton high efficiency chiller with variable frequency drive. Project Cost: $1.6MM Role:Management.

d.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Alabama Department of Agriculture & Industries	Montgomery, Alabama	2008	2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Size: 4 bldgs ECMs: HVAC, controls, lighting, EMS, power factor correction, parking lot/outside lighting, water conservation. Project Cost: $1,819,520 Role: Management

e.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
State of Florida Department of Corrections, Region II	Tallahassee, Florida	1996	2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Size: 2 buildings ECMs: demolition,removal and disposal of existing chiller, controls, condenser water piping and cooling tower; installation of high efficiency air-cooled chiller and auxiliary equipment and installation of 600 ton high efficiency chiller with variable frequency drive. Project Cost: $1.6MM Role: Management

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Jay Pakarinen	Senior Project Manager	24	9

15. FIRM NAME AND LOCATION *(City and State)*

Chevron Energy Solutions — Fort Lauderdale, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Florida Atlantic University - BSME Palm Beach State College - AS Drafting & Design	Registered Professional Engineer: California, Florida

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Mechanical Contractor: Florida Safety: OSHA 10 hour, NFPA70e
Member: American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE); Member: Leadership in Energy and Environmental Design - LEED GA

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Broward County Water and Wastewater Fort Lauderdale Florida	2010	2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 424,665 S.F. ECMs: new FOG receiving facility; digester improvements; gas cleanup & handling; new biogas cogeneration system; heat loop; electrical and control integration; green path/kiosk. Project Value:$18.1 million Role: Project Manager

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
North Carolina Central University Durham, North Carolina	2011	2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 11 bldgs ECMs:Boilers, chillers, pumps, primary systems, water conservation, lighting, HVAC, controls, piping/steam distribution Project Cost: $6.3MM Role: Project Manager

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Miami-Dade County Miami, Florida	2002	2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 2 buildings ECMs: demolition,removal and disposal of existing chiller, controls, condenser water piping and cooling tower; installation of high efficiency air-cooled chiller and auxiliary equipment and installation of 600 ton high efficiency chiller with variable frequency drive. Project Cost: $1.6MM Role: Project Manager

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Limestone County Athens, Alabama	2009	2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 13 buildings ECMs: ECMs included air-source heat pumps, furnaces/heaters; boilers; piping/steam distribution, pumps and primary systems, EMS, controls, lighting, equipment scheduling controls, and water conservation. Project Cost: $1,981,455 Role: Project Manager

e.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
School Board of Broward County Fort Lauderdale, Florida	2004	2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 11 sites ECMs: The School Board implemented 2 phases with Chevron ES with EMS, Energy Efficient Lighting; Water Conservation; Time-of-Day Control for AHUs, Boilers, and EFs; Variable Flow Chilled Water Loop; Trash Compaction Project Cost: $3,974,297 Role: Project Manager

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Bill Davis	Project Engineer	30	15

15. FIRM NAME AND LOCATION *(City and State)*

Chevron Energy Solutions — Fort Lauderdale, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S., Mechanical Engineering, University of Missouri, Kansas City, MO A.S., Mathematics, Louisiana Tech University, Ruston, LA	N/A

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Military Education: Advanced Digital Techniques, Solid State Devices, Analog Navigation/Tactics, Training Devices Specialist Member: American Society of Mechanical Engineers (ASME)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: North Carolina Central University — Durham, North Carolina

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2011 | CONSTRUCTION *(If applicable)* 2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 11 bldgs ECMs:Boilers, chillers, pumps, primary systems, water conservation, lighting, HVAC, controls, piping/steam distribution Project Cost: $6.3MM Role: Project Engineer

b.

(1) TITLE AND LOCATION *(City and State)*: Limestone County — Athens, Alabama

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2009 | CONSTRUCTION *(If applicable)* 2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 13 buildings ECMs: ECMs included air-source heat pumps, furnaces/heaters; boilers; piping/steam distribution, pumps and primary systems, EMS, controls, lighting, equipment scheduling controls, and water conservation. Project Cost: $1,981,455 Role: Project Manager

c.

(1) TITLE AND LOCATION *(City and State)*: Alabama Department of Agriculture — Montgomery, Alabama

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2008 | CONSTRUCTION *(If applicable)* 2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 4 bldgs. ECMs: New / replacement split DX system; New fan coil unit 2-pipe system; Variable flow pumping; Demand Controlled Ventilation; EMS; Controls / motion sensors; Lighting retrofit; Day-lighting; Parking lot / outdoor lighting; Power factor correction; water retrofit. Project Cost: $1,819,520 Role: Project Manager

d.

(1) TITLE AND LOCATION *(City and State)*: Cullman County Schools — Cullman, Alabama

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2007 | CONSTRUCTION *(If applicable)* 2009

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 26 sites ECMs: Lighting retrofit; classroom HVAC Units; district-wide Energy Management System; implement hot water and condenser water reset; implement demand control ventilation; install new HW boiler; replace heat pump units; water conservation; install miser on vending machines. Project Cost: $14,401,686 Role: Project Manager

e.

(1) TITLE AND LOCATION *(City and State)*: Tuscaloosa Housing Authority, Phase II — Tusscaloosa, Alabama

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2010 | CONSTRUCTION *(If applicable)* 2011

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 729,747 sf ECMs: Mechanical, Controls, water conservation, appliances,insulation Project Cost:$3,353,988 Role: Project Manager

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Rae Celestine-Honore	Project Engineer	12	6

15. FIRM NAME AND LOCATION *(City and State)*

Chevron Energy Solutions — Fort Lauderdale, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S., Mechanical Engineering, Howard University, Washington, D.C.	Registered Professional Engineer: Florida

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Leadership in Energy and Environmental Design (LEED) Green Associate
Member: United States Green Building Council

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Broward County Water and Wastewater — Fort Lauderdale, Florida

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: 2010 | CONSTRUCTION *(If applicable)*: 2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 424,665 S.F. ECMs: new FOG receiving facility; digester improvements; gas cleanup & handling; new biogas cogeneration system; heat loop; electrical and control integration; green path/kiosk. Project Value:$18.1 million Role: Project Engineer

b.

(1) TITLE AND LOCATION *(City and State)*: North Carolina Central University — Durham, North Carolina

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: 2011 | CONSTRUCTION *(If applicable)*: 2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 11 bldgs ECMs:Boilers, chillers, pumps, primary systems, water conservation, lighting, HVAC, controls, piping/steam distribution Project Cost: $6.3MM Role: Project Engineer

c.

(1) TITLE AND LOCATION *(City and State)*: Miami-Dade County — Miami, Florida

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: 2002 | CONSTRUCTION *(If applicable)*: 2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 2 buildings ECMs: demolition,removal and disposal of existing chiller, controls, condenser water piping and cooling tower; installation of high efficiency air-cooled chiller and auxiliary equipment and installation of 600 ton high efficiency chiller with variable frequency drive. Project Cost: $1.6MM Role: Project Engineer

d.

(1) TITLE AND LOCATION *(City and State)*: Dade County Government

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: 2009 | CONSTRUCTION *(If applicable)*: 2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 11 buildings ECMs:Lighting upgrades, water fixture upgrades, HVAC system and controls upgrades Project Cost: $737,380 Role: Project Engineer

e.

(1) TITLE AND LOCATION *(City and State)*: City of Prattville — Prattville, Alabama

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: 2009 | CONSTRUCTION *(If applicable)*: 2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: ECMs: New / replacement boilers; New / replacement chillers; Air-cooled condensers; Air handling units; Pumps & primary systems;EMS; Thermostats; Controls / motion sensors; Lighting retrofit; Parking lot / outdoor lighting

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Lisa Stickler	AMR Specialist	22	11

15. FIRM NAME AND LOCATION *(City and State)*

Chevron Energy Solutions — Overland Park, Kansas

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
M.S., Mechanical Engineering, University of Missouri, Columbia, Missouri B.S., Mechanical Engineering, University of Missouri, Columbia, Missouri	Registered Professional Engineer - Kansas, Alabama, Georgia, Louisiana Louisiana-General Contractor's License

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

LEED Accredited Professional (AP), Certified Energy Manager (CEM) - Association of Energy Engineers, Certified Green Building Engineer, Member:ASHRAE, ASME, NSPE

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Broward County Water and Wastewater	Fort Lauderdale, Florida	2010	2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Size: 424,665 S.F. ECMs: new FOG receiving facility; digester improvements; gas cleanup & handling; new biogas cogeneration system; heat loop; electrical and control integration; green path/kiosk. Project Value:$18.1 million Role: Project Manager

b.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
City of Livermore	Livermore, California	2009	2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Project Size: 13 bldgs. ECMs: air-source heat pumps, furnaces/heaters; boilers; piping/steam distribution, pumps and primary systems, EMS, controls, lighting, equipment scheduling controls, and water conservation. Project Cost: $1,981,455 Role: Project Engineer

c.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
City of Lawton	Lawton, Oklahoma	2007	2011

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Size: 23 bldg ECMs: change-out of water meters (over 29,000) enabled with automated meter reading (AMR) capabilities, LED traffic signals, WWTP SRT control and aeration (Influent, nitrification aeration basin control, and replace fine bubble diffusers), EMS, and air cooled condensers. Project Cost:$13,827,774 Project Role: AMR Specialist

d.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
State of Florida Department of Corrections, Region II	Tallahassee, Florida	1996	2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Size: 16 bldgs ECMs:windows, building envelope improvements, laundry/kitchen equipment replacements, mechanical/HVAC upgrades, electrical and lighting upgrades, water, conversion of LP gas fired equipment to NG natural gas fired equipment, decentralization of a large central steam plant Project Cost: $20MM Role: Project Engineer

e.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Miami-Dade County	Miami, Florida	2002	2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Size: 2 buildings ECMs: demolition,removal and disposal of existing chiller, controls, condenser water piping and cooling tower; installation of high efficiency air-cooled chiller and auxiliary equipment and installation of 600 ton high efficiency chiller with variable frequency drive. Project Cost: $1.6MM Role: Project Engineer

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Richard Grubbs	WWTP Specialist	22	6

15. FIRM NAME AND LOCATION *(City and State)*

Chevron Energy Solutions — Overland Park, Kansas

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
M.S., Environmental Health Engineering, University of Kansas, Lawrence, KS B.S., Civil Engineering, University of Kansas, Lawrence, KS	Registered Professional Engineer: Kansas, Missouri Licensed Class 4 Wastewater Treatment Plant Operator- Water Environment Federation

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Several publications such as: Biological Nutrient Removal Short Course, Kansas Water Environment Association Annual Conference, 2002
Design for Chemically Enhanced Primary Treatment, Great Plains Annual Conference, 2002

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Broward County Water and Wastewater — Fort Lauderdale, Florida

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2010 | CONSTRUCTION *(If applicable)* 2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 424,665 S.F. ECMs: new FOG receiving facility; digester improvements; gas cleanup & handling; new biogas cogeneration system; heat loop; electrical and control integration; green path/kiosk. Project Value:$18.1 million Role: WWTP Specialist

b.

(1) TITLE AND LOCATION *(City and State)*: City of Austin — Austin, Texas

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2007 | CONSTRUCTION *(If applicable)* 2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size:1200 acre ECMs: Heat exchangers, Piping / steam distribution, Pumps & primary systems, co-generation, landfill gas generators, single engine generator system,improved mixing and heat maintenance Project Cost:$3,166,035 Role: WWTP Specialist

c.

(1) TITLE AND LOCATION *(City and State)*: City of Lawton — Lawton, Oklahoma

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2007 | CONSTRUCTION *(If applicable)* 2011

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 23 bldg ECMs: change-out of water meters (over 29,000) enabled with automated meter reading (AMR) capabilities, LED traffic signals, WWTP SRT control and aeration (Influent, nitrification aeration basin control, and replace fine bubble diffusers), EMS, and air cooled condensers. Project Cost:$13,827,774 Project Role: WWTP Specialist

d.

(1) TITLE AND LOCATION *(City and State)*

(2) YEAR COMPLETED: PROFESSIONAL SERVICES | CONSTRUCTION *(If applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

e.

(1) TITLE AND LOCATION *(City and State)*

(2) YEAR COMPLETED: PROFESSIONAL SERVICES | CONSTRUCTION *(If applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Adam Bogusch	WWTP Specialist	13	5

15. FIRM NAME AND LOCATION *(City and State)*

Chevron Energy Solutions — Overland Park, Kansas

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
M.S., Environmental Health, University of Texas, Austin, Texas B.S., Civil Engineering, Iowa State University, Ames, Iowa	Registered Professional Engineer: Texas, Kansas, Missouri, Iowa, Oklahoma Board Certified Environmental Engineer (BCEE) - American Academy of Environmental

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Publications such as:Saving Energy at Wastewater Treatment Plants, American Public Works Association, California Chapter, 2011 ; Austin Water Utility's Hornsby Bend Biogas-to-Energy Combined Heat and Power Project, Water Environment Association of Texas 2011

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Broward County Water and Wastewater — Fort Lauderdale, Florida

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: 2010 | CONSTRUCTION *(If applicable)*: 2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[x] Check if project performed with current firm

Size: 424,665 S.F. ECMs: new FOG receiving facility; digester improvements; gas cleanup & handling; new biogas cogeneration system; heat loop; electrical and control integration; green path/kiosk. Project Value:$18.1 million Role: WWTP Specialist

b.

(1) TITLE AND LOCATION *(City and State)*: City of Austin — Austin, Texas

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: 2007 | CONSTRUCTION *(If applicable)*: 2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[x] Check if project performed with current firm

Size:1200 acre ECMs: Heat exchangers, Piping / steam distribution, Pumps & primary systems, co-generation, landfill gas generators, single engine generator system,improved mixing and heat maintenance Project Cost:$3,166,035 Role: WWTP Specialist

c.

(1) TITLE AND LOCATION *(City and State)*: City of Lawton — Lawton, Oklahoma

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: 2007 | CONSTRUCTION *(If applicable)*: 2011

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[x] Check if project performed with current firm

Size:1200 acre ECMs: Heat exchangers, Piping / steam distribution, Pumps & primary systems, co-generation, landfill gas generators, single engine generator system,improved mixing and heat maintenance Project Cost:$3,166,035 Role: WWTP Specialist

d.

(1) TITLE AND LOCATION *(City and State)*:

(2) YEAR COMPLETED: PROFESSIONAL SERVICES | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[x] Check if project performed with current firm

e.

(1) TITLE AND LOCATION *(City and State)*:

(2) YEAR COMPLETED: PROFESSIONAL SERVICES | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[ ] Check if project performed with current firm

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Sonny Ha	Lighting Specialist	24	14

15. FIRM NAME AND LOCATION *(City and State)*

Chevron Energy Solutions — Overland Park, Kansas

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
University of Missouri - Columbia, Missouri-BSEE	N/A

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Certified Energy Manager (CEM)
Certified Business Energy Professional (BEP)
Certified Sustainable Development Professional (CSDP)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: City of Livermore — Livermore, California

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2009 | CONSTRUCTION *(If applicable)* 2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Project Size: 13 bldgs. ECMs: air-source heat pumps, furnaces/heaters; boilers; piping/steam distribution, pumps and primary systems, EMS, controls, lighting, equipment scheduling controls, and water conservation. Project Cost: $1,981,455 Role: Lighting Specialist

b.

(1) TITLE AND LOCATION *(City and State)*: North Carolina Central University — Durham, North Carolina

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2011 | CONSTRUCTION *(If applicable)* 2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 11 bldgs ECMs:Boilers, chillers, pumps, primary systems, water conservation, lighting, HVAC, controls, piping/steam distribution Project Cost: $6.3MM Role: Lighting Specialist

c.

(1) TITLE AND LOCATION *(City and State)*: Arapahoe County — Littleton, Colorado

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2005 | CONSTRUCTION *(If applicable)* 2007

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 15 bldgs ECMs: Replacement of 5 boiler plants and a cooling plant; HVAC, controls, water, lighting, EMS Project Cost: $10,093,933 Role: Lighting Specialist

d.

(1) TITLE AND LOCATION *(City and State)*: Colorado State Capitol Complex — Denver, Colorado

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2005 | CONSTRUCTION *(If applicable)* 2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 20 bldgs. ECMs: Chilled Water system, lighting, EMS, water, HVAC, controls Project Cost:$13,564,460 Role: Lighting Specialist

e.

(1) TITLE AND LOCATION *(City and State)*: Miami-Dade County — Miami, Florida

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2002 | CONSTRUCTION *(If applicable)* 2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 2 buildings ECMs: demolition,removal and disposal of existing chiller, controls, condenser water piping and cooling tower; installation of high efficiency air-cooled chiller and auxiliary equipment and installation of 600 ton high efficiency chiller with variable frequency drive. Project Cost: $1.6MM Role: Lighting Specialist

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Tim Smith	Construction Manager	20	9

15. FIRM NAME AND LOCATION *(City and State)*

Chevron Energy Solutions — Fort Lauderdale, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Center College - Charleston, WV - Engineering Drawing/Construction Standards	N/A

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

General Construction OSHA
Safety Training
Member: ASHRAE

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Broward County Water and Wastewater — Fort Lauderdale, Florida

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2010 | CONSTRUCTION *(If applicable)* 2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 424,665 S.F. ECMs: new FOG receiving facility; digester improvements; gas cleanup & handling; new biogas cogeneration system; heat loop; electrical and control integration; green path/kiosk. Project Value:$18.1 million Role: Construction Manager

b.

(1) TITLE AND LOCATION *(City and State)*: North Carolina Central University — Durham, North Carolina

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2011 | CONSTRUCTION *(If applicable)* 2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 11 bldgs ECMs:Boilers, chillers, pumps, primary systems, water conservation, lighting, HVAC, controls, piping/steam distribution Project Cost: $6.3MM Role: Construction Manager

c.

(1) TITLE AND LOCATION *(City and State)*: Miami-Dade County — Miami, Florida

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2002 | CONSTRUCTION *(If applicable)* 2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 2 buildings ECMs: demolition,removal and disposal of existing chiller, controls, condenser water piping and cooling tower; installation of high efficiency air-cooled chiller and auxiliary equipment and installation of 600 ton high efficiency chiller with variable frequency drive. Project Cost: $1.6MM Role: Construction Manager

d.

(1) TITLE AND LOCATION *(City and State)*: Limestone County — Athens, Alabama

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2009 | CONSTRUCTION *(If applicable)* 2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 13 buildings ECMs: ECMs included air-source heat pumps, furnaces/heaters; boilers; piping/steam distribution, pumps and primary systems, EMS, controls, lighting, equipment scheduling controls, and water conservation. Project Cost: $1,981,455 Role: Construction Manager

e.

(1) TITLE AND LOCATION *(City and State)*: School Board of Broward County — Fort Lauderdale, Florida

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2004 | CONSTRUCTION *(If applicable)* 2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Size: 11 sites ECMs: The School Board implemented 2 phases with Chevron ES with EMS, Energy Efficient Lighting; Water Conservation; Time-of-Day Control for AHUs, Boilers, and EFs; Variable Flow Chilled Water Loop; Trash Compaction Project Cost: $3,974,297 Role: Construction Manager

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Steve Schulte	M&V Management	25	19

15. FIRM NAME AND LOCATION *(City and State)*

Chevron Energy Solutions — Overland Park, Kansas

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.A., Business Administration, Marketing, and Management, Park University, Parkville, Missouri A.A., Business Management, Maple Woods Community College, Kansas City, Missouri	N/A

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Certified Energy Manager (CEM)
Certified Measurement and Verification Professional (CMVP)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Broward County Water and Wastewater	Fort Lauderdale, Florida	2010	2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Size: 424,665 S.F. ECMs: new FOG receiving facility; digester improvements; gas cleanup & handling; new biogas cogeneration system; heat loop; electrical and control integration; green path/kiosk. Project Value:$18.1 million Role:M&V

b.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
North Carolina Central University	Durham, North Carolina	2011	2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Size: 11 bldgs ECMs:Boilers, chillers, pumps, primary systems, water conservation, lighting, HVAC, controls, piping/steam distribution Project Cost: $6.3MM Role: M&V

c.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Miami-Dade County	Miami, Florida	2002	2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Size: 2 buildings ECMs: demolition,removal and disposal of existing chiller, controls, condenser water piping and cooling tower; installation of high efficiency air-cooled chiller and auxiliary equipment and installation of 600 ton high efficiency chiller with variable frequency drive. Project Cost: $1.6MM Role:M&V

d.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
City of Austin	Austin, Texas	2007	2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Size:1200 acre ECMs: Heat exchangers, Piping / steam distribution, Pumps & primary systems, co-generation, landfill gas generators, single engine generator system,improved mixing and heat maintenance Project Cost:$3,166,035 Role: M&V

e.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
State of Florida Department of Corrections, Region II	Tallahassee, Florida	1996	2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Size: 2 buildings ECMs: demolition,removal and disposal of existing chiller, controls, condenser water piping and cooling tower; installation of high efficiency air-cooled chiller and auxiliary equipment and installation of 600 ton high efficiency chiller with variable frequency drive. Project Cost: $1.6MM Role: M&V

Hazen and Sawyer

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Gary W. Bors, P.E. **Vice President**	**Engineering Design Support**	**38**	**37**

15. FIRM NAME AND LOCATION *(City and State)*

HAZEN AND SAWYER, P.C., HOLLYWOOD, FLORIDA

HAZEN AND SAWYER
Environmental Engineers & Scientists

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Civil Engineering MS, Water Resource Engineering	PE / FL – Civil Engineering PE / NY – Civil Engineering PE / NC – Civil Engineering

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

American Society of Civil Engineers, American Water Works Association, Water Environment Federation, National Society of Professional Engineers, Instrument Society of America, American Water Resources Association, Technical Association of the Pulp & Paper Industry, Industrial Computing Society

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: **Upgrade of G.T. Lohmeyer Regional Wastewater Treatment Facilities Fort Lauderdale, Florida**

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2008; CONSTRUCTION (If applicable) 2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The City of Fort Lauderdale is the lead agency in the Broward County Central Wastewater Region. The City's George T. Lohmeyer Wastewater Treatment Plant is designated as the regional facility to treat all wastewater generated in the Central Region. Smaller existing plants were to be abandoned, and treatment consolidated at one location, to reduce operating and maintenance costs and eliminate wastewater discharge to inland canals and waterways. The original 22 mgd Lohmeyer WWTP was a two-stage pure oxygen activated sludge plant, designed to satisfy carbonaceous and nitrogenous BOD removal requirements. The highly treated effluent was discharged through an outfall into the Intercoastal Waterway. **Cost:** $49 million (construction) **Specific Role:** Project Manager

b.

(1) TITLE AND LOCATION *(City and State)*: **General Wastewater and Water Engineering Services Broward County, FL**

(2) YEAR COMPLETED: PROFESSIONAL SERVICES; PROFESSIONAL SERVICES

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Hazen and Sawyer provided general professional consulting services to Broward County Water and Wastewater Services under the 2002-2008 Agreement in the following areas: water and wastewater treatment plants, water collection and wastewater distribution, hydraulic modeling, pumping stations, water wells and effluent disposal wells, water reclamation, ocean science and marine engineering, financial studies and regulatory assistance. Hazen and Sawyer completed over one hundred separate projects under that Agreement. **Status:** Contract expired in 2008 but Hazen and Sawyer is currently providing services on over 30 active water and wastewater projects (under two separate general consulting contracts). **Cost:** $12 million (fees, est. total). **Specific Role:** QA/QC

c.

(1) TITLE AND LOCATION *(City and State)*: **Wastewater Consulting Engineering Services SCRWT&DB, Delray Beach, FL**

(2) YEAR COMPLETED: PROFESSIONAL SERVICES; PROFESSIONAL SERVICES

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Hazen Since 1994, Hazen and Sawyer has provided wastewater consulting engineering services to the South Central Regional Wastewater Treatment and Disposal Board (SCRWT&DB). Some of the projects that Hazen and Sawyer has completed or is currently working on are: Sludge Dewatering Facilities; Contractor at Risk; Administration Building Interior Improvements; 2 mgd Reclaimed Water Storage Tank; 6 mgd Reclaimed Water System Expansion; Deep Injection Well System; RAS, Sludge and Headworks Upgrade; Reclaimed Water Expansion to 24 mgd; Improvements to Sludge Management Facility; Headworks and Stormwater System Improvements and Secondary Clarifiers and Stormwater System Rehabilitation. **Status:** This contract is ongoing. **Cost:** $40 million (to date) **Specific Role:** QA/QC

d.

(1) TITLE AND LOCATION *(City and State)*: **Wastewater Consulting Palm Beach County, FL**

(2) YEAR COMPLETED: PROFESSIONAL SERVICES 2005; PROFESSIONAL SERVICES 2005

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Hazen and Sawyer provided study, design, permitting and construction administration (CA) and/or management (CM) services on numerous wastewater projects. Elements of select projects are: SRWRF Phase I; Regional Pump Stations 9S and 5; Sludge Management Plan; Indirect Water Reuse Feasibility Study; Telemetry Information Management System Phase I and Phase II; SRWRF Phase II; SRWRF Reclaimed Water System Expansion; SRWRF 16-mgd Reclaimed Water Filter Expansion; System 9N Regional Pump Station; Master Wastewater Pump Station 5229 Upgrade; Winsberg Farm Wetlands Restoration (a.k.a. Green Cay Wetlands); Central Region Operations Center; SRWRF 5-mgd Capacity Upgrade and Century Village North Reclaimed Water Production Facility. **Cost:** $137 million (construction) **Specific Role:** QA/QC

e.

(1) TITLE AND LOCATION *(City and State)*: **Water, Wastewater and Reclaimed Water Continuing Engineering Services, City of Boca Raton, Florida**

(2) YEAR COMPLETED: PROFESSIONAL SERVICES; PROFESSIONAL SERVICES

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Hazen and Sawyer has assisted the City of Boca Raton with planning, design, and construction projects from 1995 until today. Various City projects completed by Hazen and Sawyer have included: Wastewater Pump Station Improvement Program; Transmission System Master Plan; Solids Processing Facility Improvements; pH and DO Outfall Mixing Zone Evaluation Report; WWTP/Water Reclamation Facility Capacity Analysis Report; WWTP Operation and Maintenance Performance Report; Primary Clarifier Restoration Project; Final Clarifier Refurbishment Project; Sodium Hypochlorite Storage Tank & Piping Project; Primary Digester No. 1 & No. 2 Rehabilitation Projects; Pressure Pipe Repair and Installation Technical Specification Project; Water & Wastewater Telemetry Reliability Improvements Plan; WWTP & WTP Sodium Hypochlorite OSG Rehabilitation and Digester Building and Gas Piping Rehabilitation. **Status:** This contract is ongoing. **Cost:** $45 million (construction, to date) **Specific Role:** QA/QC

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Patrick A. Davis, P.E. **Vice President**		34	32

15. FIRM NAME AND LOCATION *(City and State)*

HAZEN AND SAWYER, P.C., HOLLYWOOD, FLORIDA

HAZEN AND SAWYER
Environmental Engineers & Scientists

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*	
BS, Civil Engineering	PE / FL – Civil Engineering	PE / MA – Civil Engineering
	PE / NY – Civil Engineering	PE / VA – Civil Engineering
	PE / NC – Civil Engineering	

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

American Water Works Association, Water Environment Federation, American Society of Civil Engineers, Underground Injection Practices Control, ASHRAE, NSPE, TAPPI, National AWWA Dual Distribution Committee, Chairman - Florida AWWA Water Reuse Committee

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: **Energy Conservation Projects at Utility Facilities Design-Build Project, Broward County, Florida**

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: | CONSTRUCTION (If applicable):

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Hazen and Sawyer, in association with Chevron Energy Solutions (CES), was selected to provide Design-Build Services for the evaluation and implementation of Energy Conservation Methods (ECMs) at the Broward County North Regional Wastewater Treatment Plant (NRWWTP). Under this contract, Hazen and Sawyer, in tandem with CES, provide engineering analyses of various ECMs and established construction costs and estimated payback (self-funding) periods, based on corresponding energy savings to be realized from the improvements. Target payback periods must not exceed 20 years. **Status:** The project is ongoing. **Cost:** Not specified to date. **Specific Role:** Project Director

b.

(1) TITLE AND LOCATION *(City and State)*: **Fiveash Water Treatment Plant Upgrades - Phase I Fort Lauderdale, Florida**

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: 2008 | CONSTRUCTION (If applicable): 2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Hazen and Sawyer evaluated the condition of the 70-mgd Fiveash Water Treatment Plant. The study evaluated the raw water supply, wellfield and raw water transmission system improvements, control system, lime solids disposal alternatives for the existing lime softening facilities, and additional improvements to maintain the reliability of the existing lime softening facilities. Hazen and Sawyer then designed and provided assistance during the construction of upgrades at the Fiveash WTP. The upgrades consisted of a number of project elements that are critical to maintaining the reliability of the existing lime softening process. **Cost:** $12.5 million. **Specific Role:** Project Director

c.

(1) TITLE AND LOCATION *(City and State)*: **City of Fort Lauderdale Peele-Dixie 12-mgd Membrane Plant Fort Lauderdale, Florida**

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: 2008 | CONSTRUCTION (If applicable): 2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Hazen and Sawyer was selected to provide engineering services for the conversion of the Peele-Dixie lime softening plant to a membrane facility. The Peele-Dixie Membrane Plant project included the testing, predesign, design, and construction oversight services for a 15 mgd raw water wellfield, a 12 mgd finished water membrane plant, and a +5.8 mgd deep injection well for concentrate disposal. **Cost:** Total costs for the facility were approximately $41.3 million and were inclusive of the membrane plant, wellfield and transmission pipe-line and concentrate disposal well. **Specific Role:** Project Director

d.

(1) TITLE AND LOCATION *(City and State)*: **Upgrade of G.T. Lohmeyer Regional Wastewater Treatment Facilities Fort Lauderdale, Florida**

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: 2008 | CONSTRUCTION (If applicable): 2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The City of Fort Lauderdale is the lead agency in the Broward County Central Wastewater Region. The City's George T. Lohmeyer Wastewater Treatment Plant is designated as the regional facility to treat all wastewater generated in the Central Region. Smaller existing plants were to be abandoned, and treatment consolidated at one location, to reduce operating and maintenance costs and eliminate wastewater discharge to inland canals and waterways. The original 22 mgd Lohmeyer WWTP was a two-stage pure oxygen activated sludge plant, designed to satisfy carbonaceous and nitrogenous BOD removal requirements. The highly treated effluent was discharged through an outfall into the Intercoastal Waterway. **Cost:** $49 million (construction) **Specific Role:** Project Director

e.

(1) TITLE AND LOCATION *(City and State)*: **Dixie Wellfield Improvements Fort Lauderdale, Florida**

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: 2007 | CONSTRUCTION (If applicable): 2007

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The City of Fort Lauderdale replaced their existing lime softening facilities at the Peele-Dixie WTP with a 12 mgd finished water capacity nanofiltration water treatment plant. The City retained the services of Hazen and Sawyer to evaluate, permit, and design wellfield improvements for the Dixie Wellfield. **Cost:** $9,213,000 (construction), $785,031 (design fee), $720,446 (construction management fee) **Specific Role:** Project Director

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
George A. Brown, P.E. **Senior Associate**	**Engineering Design Support**	**17**	**18**

15. FIRM NAME AND LOCATION *(City and State)*
HAZEN AND SAWYER, P.C., HOLLYWOOD, FLORIDA

HAZEN AND SAWYER
Environmental Engineers & Scientists

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Environmental Engineering	PE / FL – Environmental Engineering

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
American Water Works Association, Florida Section Risk Management / Safety Committee

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Fiveash Water Treatment Plant Upgrades - Phase I
Fort Lauderdale, Florida

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	PROFESSIONAL SERVICES
2008	2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Hazen and Sawyer evaluated the condition of the 70-mgd Fiveash Water Treatment Plant. The study evaluated the raw water supply, wellfield and raw water transmission system improvements, control system, lime solids disposal alternatives for the existing lime softening facilities, and additional improvements to maintain the reliability of the existing lime softening facilities. Hazen and Sawyer then designed and provided assistance during the construction of upgrades at the Fiveash WTP. The upgrades consisted of a number of project elements that are critical to maintaining the reliability of the existing lime softening process. **Cost:** $12.5 million. **Specific Role:** Project Manager; Project Engineer

b.

(1) TITLE AND LOCATION *(City and State)*
Dixie Wellfield Improvements
Fort Lauderdale, Florida

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	PROFESSIONAL SERVICES
2007	2007

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

The City of Fort Lauderdale replaced their existing lime softening facilities at the Peele-Dixie WTP with a 12 mgd finished water capacity nanofiltration water treatment plant. The City retained the services of Hazen and Sawyer to evaluate, permit, and design wellfield improvements for the Dixie Wellfield. **Cost:** $9,213,000 (construction), $785,031 (design fee), $720,446 (construction management fee) **Specific Role:** Project Director

c.

(1) TITLE AND LOCATION *(City and State)*
City of Fort Lauderdale Prospect Wellfield Expansion
Fort Lauderdale, Florida

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	PROFESSIONAL SERVICES
2004	2004

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

The City of Fort Lauderdale retained the services of Hazen and Sawyer to design, permit and provide construction management services for the plugging and abandonment of five wells near the Fort Lauderdale Executive Airport and the construction of five new 24-inch diameter water supply wells located on the Prospect Wellfield site. The project consists of two design and construction phases. Phase 1 consisted of design, permitting and construction services for the plugging and abandonment of the existing wells and the construction of new wells. Phase 2 consisted of the design, permitting, and construction management services for the construction of new pumps and transmission piping to convey the raw water from the wells constructed in Phase 1 to the existing transmission pipeline. **Cost:** $331,370 **Specific Role:** Project Manager

d.

(1) TITLE AND LOCATION *(City and State)*
Dixie Alternative Water Supply Program
City of Fort Lauderdale, Florida

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	PROFESSIONAL SERVICES
2008	2007

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Hazen and Sawyer evaluated, permitted, and designed construction services for the first phase of the City's Dixie Alternative Water Supply program. Services included design, permitting, monitoring, and construction and testing of two 24-inch Floridan Aquifer test wells (2-mgd each). The work included test well design and construction, wellfield modeling program, wellfield conceptual plan, and Reverse Osmosis Basis of Design. **Cost:** $3,035,000 **Specific Role:** Project Manager

e.

(1) TITLE AND LOCATION *(City and State)*
Water Master Plan 2006 Update
Fort Lauderdale, Florida

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
2007	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Hazen and Sawyer was retained by the City of Fort Lauderdale to provide water master planning services. The project included an analysis and capital improvement recommendations which address issues such as infrastructure firm capacity, reliability, redundancy, water quality and other operations and maintenance issues. Water demand forecasting was completed utilizing integrated databases including billing records, traffic analysis zone, graphical information system (GIS) and a water hydraulic model. **Cost:** $441,000 (fee) **Specific Role:** Project Manager

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Geoffrey K. Hart, P.E. **Senior Associate**	**Engineering Design Support**	**39**	**8**

15. FIRM NAME AND LOCATION *(City and State)*
HAZEN AND SAWYER, P.C., HOLLYWOOD, FLORIDA

HAZEN AND SAWYER
Environmental Engineers & Scientists

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Mechanical Engineering	PE / Florida - Mechanical

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Southeast Desalting Association; **Select Publications:** "City of Pompano Beach – New Water/New Treatment", AWWA Water Resources Conference, Orlando, Florida, November 2003. *Section 8, Reverse Osmosis*, IN: Handbook for Membrane Plant Operator Training, SEDA, August 1999. "Membrane Concentrate Reuse by Controlled Blending with Reclaimed Water for Irrigation", AWWA Florida Water Resources Conference, Ft. Lauderdale, Florida, 1998.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Energy Conservation Projects at Utility Facilities
Design-Build Project, Broward County, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Hazen and Sawyer, in association with Chevron Energy Solutions (CES), was selected to provide Design-Build Services for the evaluation and implementation of Energy Conservation Methods (ECMs) at the Broward County North Regional Wastewater Treatment Plant (NRWWTP). Under this contract, Hazen and Sawyer, in tandem with CES, provide engineering analyses of various ECMs and established construction costs and estimated payback (self-funding) periods, based on corresponding energy savings to be realized from the improvements. Target payback periods must not exceed 20 years. **Status:** The project is ongoing. **Cost:** Not specified to date. **Specific Role:** Water Facilities

b.

(1) TITLE AND LOCATION *(City and State)*
Fiveash Water Treatment Plant Upgrades - Phase I
Fort Lauderdale, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2008	2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Hazen and Sawyer evaluated the condition of the 70-mgd Fiveash Water Treatment Plant. The study evaluated the raw water supply, wellfield and raw water transmission system improvements, control system, lime solids disposal alternatives for the existing lime soften-ing facilities, and additional improvements to maintain the reliability of the existing lime softening facilities. Hazen and Sawyer then de-signed and provided assistance during the construction of upgrades at the Fiveash WTP. The upgrades consisted of a number of pro-ject elements that are critical to maintaining the reliability of the existing lime softening process. **Cost:** $12.5 million. **Specific Role:** Project Engineer

c.

(1) TITLE AND LOCATION *(City and State)*
City of Fort Lauderdale Peele-Dixie 12-mgd Membrane Plant
Fort Lauderdale, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2008	2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Hazen and Sawyer was selected to provide engineering services for the conversion of the Peele-Dixie lime softening plant to a mem-brane facility. The Peele-Dixie Membrane Plant project included the testing, predesign, design, and construction oversight services for a 15 mgd raw water wellfield, a 12 mgd finished water membrane plant, and a +5.8 mgd deep injection well for concentrate disposal. **Cost:** $9,213,000 (construction), $785,031 (design fee), $720,446 (construction management fee) **Specific Role:** Water Treatment

d.

(1) TITLE AND LOCATION *(City and State)*
Dixie Wellfield Improvements
Fort Lauderdale, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2007	2007

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

The City of Fort Lauderdale replaced their existing lime softening facilities at the Peele-Dixie WTP with a 12 mgd finished water capacity nanofiltration water treatment plant. The City retained the services of Hazen and Sawyer to evaluate, permit, and design wellfield improvements for the Dixie Wellfield. **Cost:** $9,213,000 (construction), $785,031 (design fee), $720,446 (construction management fee) **Specific Role:** QA/QC

e.

(1) TITLE AND LOCATION *(City and State)*
Poinciana Park Water Pumping Station and Ground Storage Tank
Fort Lauderdale, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2007	2007

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Hazen and Sawyer was retained to provide preliminary and detailed design, permitting, bidding and construction phase services for the demolition of an existing 2.1 million gallon steel water tank (standpipe) and pumping station and replacement with an aesthetically pleasing 2 million gallon prestressed concrete ground storage tank and 3.5 million gpd pumping station. **Cost:** $3,031,212 **Specific Role:** Water Treatment

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Luis P. Amaral, P.E. **Associate**	**Engineering Design Support**	**24**	**18**

15. FIRM NAME AND LOCATION *(City and State)*

HAZEN AND SAWYER, P.C., HOLLYWOOD, FLORIDA

HAZEN AND SAWYER
Environmental Engineers & Scientists

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Electrical Engineering BS, Mechanical Engineering	PE / FL – Control System Engineering

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Instrument Society of America, Institute of Electrical and Electronics Engineers, Control Systems Society, National Society of Professional Engineers, Florida Engineering Society

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Dixie Wellfield Improvements **Fort Lauderdale, Florida**	2007	2007

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

The City of Fort Lauderdale replaced their existing lime softening facilities at the Peele-Dixie WTP with a 12 mgd finished water capacity nanofiltration water treatment plant. The City retained the services of Hazen and Sawyer to evaluate, permit, and design wellfield improvements for the Dixie Wellfield. **Cost:** $9,213,000 (construction), $785,031 (design fee), $720,446 (construction management fee) **Specific Role:** Instrumentation and Controls

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
City of Hollywood Southern Regional Wastewater Treatment Plant 2002 Upgrade, Hollywood, Florida	2009	2009

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

The City of Hollywood is the lead agency for the Broward County Southern Region. Hazen and Sawyer is worked on a field demonstration test/paper uprate to about 49 mgd. Hazen and Sawyer also worked on the 2002 Upgrade. Primarily, Oxygenation and clarification facilities were upgraded and expanded. These upgrades were intended to improve reliability and to allow capacity uprating to somewhere between 50 mgd and 55 mgd (depending upon results of the ongoing paper uprate of the Oxygenation Trains). Hazen and Sawyer provided design, permitting and bidding assistance, and engineering services during construction for the improvements. **Cost:** $4 million (fee), $24 million (construction) **Specific Role:** Instrumentation and Controls

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Broward County North Regional Wastewater Treatment Plant Updating, Broward County, Florida	2007	2007

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Hazen and Sawyer provided pre-design, design, and construction management services for the Broward County NRWWTP updating. The plant capacity was expanded from 80 to 100 mgd. The project was divided into phases to allow thorough planning to most cost effectively meet build-out needs as well as to fast track the design and construction of interim improvements needed to meet short term needs. **Cost:** $65 million **Specific Role:** Instrumentation and Controls

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
General Consulting Services **Coral Gables, Florida**		

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Since 1992 Hazen and Sawyer has been reselected and continues to provide day-to-day general consulting services to the City of Coral Gables. Recently completed projects include Pump Station Evaluation, Sewer Rate Study, Telemetry System (Phase II), I/I Flow Reduction Assistance and Pipeline/Pump Station Designs. **Cost:** $1,200,000 (Engineering fees, last four years) **Status:** Ongoing. **Specific Role:** Electrical / Instrumentation & Controls

e.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
North Gables Flood Mitigation Project **Coral Gables, Florida**	2002	2002

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

The City of Coral Gables (City) was founded in the 1920's. At that time, development practices did not provide for the raising of roadway and property elevations above current design storm levels. In the year 2000, the City experiences substantial flooding in its northwest quadrant which led to an effort to mitigate the flooding. Thus, the Hazen and Sawyer was chose to provide detailed design, permitting, and construction management services for the Stormwater Pumping Station and Effluent Discharge Works. **Cost:** $1,377,000 **Specific Role:** Instrumentation and Controls

Hill York

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Rob Pulsifer	Program Manager	15	5

15. FIRM NAME AND LOCATION *(City and State)*

Hill-York Air Conditioning Services and Energy Soluti Fort Lauderdale, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Western New England College, Springfield, MA Bachelors of Science, Mechanical Engineering	FL Engineering Intern #1100013356

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Certified Energy Manager (CEM)
Leadership in Energy and Environmental Design (LEED) AP

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
City of Port St. Lucie Performance Contract	Port St. Lucie, Florida		2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Included converting the municipal complex cooling systems from an inefficient direct expansion system to a premium efficiency water cooled chiller system. The project was installed as a design build solution with a Central Energy Plant (CEP) being constructed. $2.1 MM Role: conceptual design, equipment selection and modeling

b.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
City of Clearwater Phase 2 Performance Contract	Clearwater, Florida		2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Numerous energy conservation measures including conversion of an antiquated dual duct system to a variable air volume system, high efficiency chillers and air conditioning systems and a pool pumping optimization measure for the Long Center. $761K Role: conceptual design, equipment selection and modeling.

c.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
City of Clearwater Phase 1 Performance Contract	Clearwater, Florida		2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Designed a natatorium dehumidification system that decreased natural gas loads and evaporation rated by maintaining a strict indoor environment. designed to improve overall indoor air quality and reduce operating expenses. $1.45 MM Role: Performance contracting engineer.

d.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Broward Center for the Performing Arts Performance Contract	Fort Lauderdale, Florida		2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Utility analysis that led to a utility rate change energy conservation measure (ECM), a full high efficiency chiller plant retrofit including variable speed chillers, controls ECMs including demand control ventilation, a demand limiting ECM and lighting retrofits. Role: performance contracting engineer $1.2 MM.

e.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [ ] Check if project performed with current firm

Minority Builders Coalition, Inc.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Brian C. Johnson	Project Management Consultant	43	43

15. FIRM NAME AND LOCATION *(City and State)*

Minority Builders Coalition, Inc. Fort Lauderdale, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Doctorate of Education (Organizational Leadership/Human Services administration - dissertation pending), MBA, B.A.	

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Forefront of facilitating increased participation of W/MBE business owners and workers into the local construction industry. We regularly engage in vendor diversity advocacy, procurement assistance, & capacity building activities that enable W/MBE to compete.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Gatlin Development Walmart Centers — Fort Lauderdale and Davie, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[x] Check if project performed with current firm

Ongoing project. Providing local business participation coordination, compliance and monitoring, community outreach and project administration consulting.

b.

(1) TITLE AND LOCATION *(City and State)*: Broward Center for the Performing Arts - Phases I and II — Fort Lauderdale, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2013 | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[x] Check if project performed with current firm

Providing local business participation coordination, compliance and monitoring, community outreach and support to minority construction management partner (Messam Construction).

c.

(1) TITLE AND LOCATION *(City and State)*: Florida Panthers Arena/SSE - Club Red — Fort Lauderdale, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2013 | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[x] Check if project performed with current firm

Providing local business participation coordination, compliance and monitoring, community outreach and support to minority construction management partner (Messam Construction).

d.

(1) TITLE AND LOCATION *(City and State)*:

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[x] Check if project performed with current firm

e.

(1) TITLE AND LOCATION *(City and State)*:

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[x] Check if project performed with current firm

Enviro Energy Partners LLC

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Roy Ratner	Project Manager	5	5

15. FIRM NAME AND LOCATION *(City and State)*

Enviro Energy Partners LLC Pompano Beach, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS BA Marketing, business administration	N/A

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

20 years in the electrical distribution industry including solar energy
Cofounder of the Florida alliance for renewable energy FARE

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Miami Children's Museum	Miami, Florida		2011

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Provided photometric layouts and design, Replaced fluorescent and metal halide lighting fixtures with more efficient LED technology, complete facility retrofit with solid-state lighting, all classrooms, hallways and auditoriums with LED lighting $280,000 plus

b.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Veterans Administration Hospital	West Palm Beach, Florida		2010

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Provided photometric layouts and design Replaced 630 175 W metal halide parking garage fixtures with 630 80. And 90 W LED garage fixtures $340,000 in equipment

c.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Cornerstone Apartment Group	Statewide Florida		2012

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Provided photometric layouts and design Supplied LED Area Street lighting and cement poles for 3 new apartment complexes and are scheduled for 12 more including all the roadway and common area lighting $60,000 per complex average

d.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
State of Florida Department of Transportation	Florida		2013

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Provided photometric layouts and design Supplied LED lighting for district 1 Bartow Florida, FM OC, Fort Myers Florida, DOT West Palm Beach and, DOT Fort Pierce
Supply area lighting for parking lots and facility roadways around $250,000 so far

e.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
State of Florida Army Corps of Engineers	Florida		2011

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Designed, provided photometric layouts and Retrofitted all existing Army Corps canal system locks and location facilities throughout Florida with solid-state lighting $250,000

I-Star Energy Solutions

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Andrew Martin	Lead Construction Manager	17	3

15. FIRM NAME AND LOCATION *(City and State)*

I-Star Energy Solutions Viera, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
	N/A

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Certified Insulation Energy Appraiser (CIEA), Certified Infrared Thermographer (CIT), Building Performance Institute, Envelope Professional & Building Analyst Professional (BPI) Certified Airborne Ultrasound Technician (AUT)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Bedford County	Bedford, Virginia		

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mechanical Insulation/Building Envelope $283k

b.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Ann Arbor Public Schools	Ann Arbor, Michigan		

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mechanical Insulation $634k

c.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
New Paltz High/Middle School	New Paltz, New York		

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mechanical Insulation $105K

d.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Lindenhurst Central School District	Lindenhurst, New York		

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mechanical Insulation $141K

e.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Floral Park-Bellerose UFSD	Floral Park, New York		

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Mechanical Insulation/Building Envelope $115K

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Ron DeRose	Auditor	20	1

15. FIRM NAME AND LOCATION *(City and State)*

I-Star Energy Solutions Viera, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

N/A

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Certified Insulation Energy Appraiser (CIEA), Certified Infrared Thermographer (CIT), Building Performance Institute, Envelope Professional & Building Analyst Professional (BPI) Certified Airborne Ultrasound Technician (AUT)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Bedford County Bedford, Virginia

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation/Building Envelope $283k

[X] Check if project performed with current firm

b.

(1) TITLE AND LOCATION *(City and State)*: Ann Arbor Public Schools Ann Arbor, Michigan

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation $634k

[X] Check if project performed with current firm

c.

(1) TITLE AND LOCATION *(City and State)*: New Paltz High/Middle School New Paltz, New York

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation $105K

[X] Check if project performed with current firm

d.

(1) TITLE AND LOCATION *(City and State)*: Lindenhurst Central School District Lindenhurst, New York

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation $141K

[X] Check if project performed with current firm

e.

(1) TITLE AND LOCATION *(City and State)*: Floral Park-Bellerose UFSD Floral Park, New York

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation/Building Envelope $115K

[X] Check if project performed with current firm

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Mike Gantz	Auditor	19	3

15. FIRM NAME AND LOCATION *(City and State)*

I-Star Energy Solutions Viera, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

N/A

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Certified Insulation Energy Appraiser (CIEA), Certified Infrared Thermographer (CIT), Building Performance Institute, Envelope Professional & Building Analyst Professional (BPI) Certified Airborne Ultrasound Technician (AUT)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Bedford County Bedford, Virginia

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation/Building Envelope $283k

[X] Check if project performed with current firm

b.

(1) TITLE AND LOCATION *(City and State)*: Ann Arbor Public Schools Ann Arbor, Michigan

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation $634k

[X] Check if project performed with current firm

c.

(1) TITLE AND LOCATION *(City and State)*: New Paltz High/Middle School New Paltz, New York

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation $105K

[X] Check if project performed with current firm

d.

(1) TITLE AND LOCATION *(City and State)*: Lindenhurst Central School District Lindenhurst, New York

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation $141K

[X] Check if project performed with current firm

e.

(1) TITLE AND LOCATION *(City and State)*: Floral Park-Bellerose UFSD Floral Park, New York

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation/Building Envelope $115K

[X] Check if project performed with current firm

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Jim Park	Assessment Analyst/Project Manager	40	3

15. FIRM NAME AND LOCATION *(City and State)*

I-Star Energy Solutions Viera, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

N/A

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Certified Insulation Energy Appraiser (CIEA), Certified Infrared Thermographer (CIT), Building Performance Institute, Envelope Professional & Building Analyst Professional (BPI) Certified Airborne Ultrasound Technician (AUT)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Bedford County Bedford, Virginia

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation/Building Envelope $283k

[X] Check if project performed with current firm

b.

(1) TITLE AND LOCATION *(City and State)*: Ann Arbor Public Schools Ann Arbor, Michigan

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation $634k

[X] Check if project performed with current firm

c.

(1) TITLE AND LOCATION *(City and State)*: New Paltz High/Middle School New Paltz, New York

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation $105K

[X] Check if project performed with current firm

d.

(1) TITLE AND LOCATION *(City and State)*: Lindenhurst Central School District Lindenhurst, New York

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation $141K

[X] Check if project performed with current firm

e.

(1) TITLE AND LOCATION *(City and State)*: Floral Park-Bellerose UFSD Floral Park, New York

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

Mechanical Insulation/Building Envelope $115K

[X] Check if project performed with current firm

Dickey Consulting Services

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Sheryl A. Dickey	Lead Engineer/Project Manager	30	19

15. FIRM NAME AND LOCATION *(City and State)*

Dickey Consulting Services, Inc. Fort Lauderdale, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Ohio State University - BSSW	N/A

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Certification - Charrette Planner and Public Meeting Facilitator - Virginia Tech
Serves on the Broward County Small Business Development Advisory Board
Extensive experience with Disadvantaged Business Enterprise (DBE) Programs

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Boca Raton Airport Authority DBE Liaison	Boca Raton, Florida		

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

On-going project since 2008. Conducts monthly Pay Application reviews and subsequently products a Review report with our findings.Complete the DBE goal setting for the construction phase of this project. Produce a bid document review report, attend pre-construction meetings and compile statistical and empirical

b.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Fort Lauderdale Executive Airport DBE Liaison	Fort Lauderdale, Florida		

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

On-going project since 2011. Reviews all payments made to Prime and Sub-consultants, obtained from the City and Prime Consultant. Review airport's prior years' DBE goals and utilization.Provide DBE Monitoring & Reporting Services during construction

c.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
North County Neighborhood Improvement Project	North Broward County, Florida		

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

On-going project since 2002. Public awareness program - prepare project collateral brochures,dissemination of brochures,prepare a database of homeowners, residents and businesses, attend meetings with established neighborhood association

d.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
City of Ft. Lauderdale Water & Wastewater	Fort Lauderdale, Florida	2011	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Provided Professional Consulting Services in support of the planning and implementation of Public Communication and Public Outreach activities.Developed and implemented media communication plans to create positive public perception and support for the program.

e.

(1) TITLE AND LOCATION *(City and State)*		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Everglades Holiday Park Master Plan	Broward County, Florida	2008	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Assisted in determining user needs and priorities for the redevelopment of Everglades Holiday Park: Public Involvement Notices, Interviews with Stakeholders & Focus Groups, Public Workshop, and Facilitated Consensus.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Justina Hicklyn	Public Relations Coordinator	4	3

15. FIRM NAME AND LOCATION *(City and State)*

Dickey Consulting Services, Inc. Fort Lauderdale, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S. - Communications	N/A

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

N/A

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Boca Raton Airport Authority DBE Liaison — Boca Raton, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

On-going project since 2008. Conducts monthly Pay Application reviews and subsequently products a Review report with our findings.Complete the DBE goal setting for the construction phase of this project. Produce a bid document review report, attend pre-construction meetings and compile statistical and empirical

b.

(1) TITLE AND LOCATION *(City and State)*: Fort Lauderdale Executive Airport DBE Liaison — Fort Lauderdale, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

On-going project since 2011. Reviews all payments made to Prime and Sub-consultants, obtained from the City and Prime Consultant. Review airport's prior years' DBE goals and utilization.Provide DBE Monitoring & Reporting Services during construction

c.

(1) TITLE AND LOCATION *(City and State)*: North County Neighborhood Improvement Project — North Broward County, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

On-going project since 2002. Public awareness program - prepare project collateral brochures,dissemination of brochures,prepare a database of homeowners, residents and businesses, attend meetings with established neighborhood association

d.

(1) TITLE AND LOCATION *(City and State)*: City of Ft. Lauderdale Water & Wastewater — Fort Lauderdale, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2011 | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Provided Professional Consulting Services in support of the planning and implementation of Public Communication and Public Outreach activities.Developed and implemented media communication plans to create positive public perception and support for the program.

e.

(1) TITLE AND LOCATION *(City and State)*: Everglades Holiday Park Master Plan — Broward County, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2008 | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [x] Check if project performed with current firm

Assisted in determining user needs and priorities for the redevelopment of Everglades Holiday Park: Public Involvement Notices, Interviews with Stakeholders & Focus Groups, Public Workshop, and Facilitated Consensus.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Sheree Uhler	Project Coordinator	20	1

15. FIRM NAME AND LOCATION *(City and State)*

Dickey Consulting Services, Inc. Fort Lauderdale, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Bachelor of Arts	Notary Public

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Office Management, Quick Books

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Boca Raton Airport Authority DBE Liaison — Boca Raton, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

[x] Check if project performed with current firm

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

On-going project since 2008. Conducts monthly Pay Application reviews and subsequently products a Review report with our findings.Complete the DBE goal setting for the construction phase of this project. Produce a bid document review report, attend pre-construction meetings and compile statistical and empirical

b.

(1) TITLE AND LOCATION *(City and State)*: Fort Lauderdale Executive Airport DBE Liaison — Fort Lauderdale, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

[x] Check if project performed with current firm

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

On-going project since 2011. Reviews all payments made to Prime and Sub-consultants, obtained from the City and Prime Consultant. Review airport's prior years' DBE goals and utilization.Provide DBE Monitoring & Reporting Services during construction

c.

(1) TITLE AND LOCATION *(City and State)*: North County Neighborhood Improvement Project — North Broward County, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

[x] Check if project performed with current firm

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

On-going project since 2002. Public awareness program - prepare project collateral brochures,dissemination of brochures,prepare a database of homeowners, residents and businesses, attend meetings with established neighborhood association

d.

(1) TITLE AND LOCATION *(City and State)*:

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

[ ] Check if project performed with current firm

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

e.

(1) TITLE AND LOCATION *(City and State)*:

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

[ ] Check if project performed with current firm

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: 1

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Broward County Water and Wastewater	2012	2014

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Broward County	Vin Morello, P.E.	954 831 0908

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Scope of Work:
Broward County owns and operates the North Regional WWTP, a facility composed of five individual secondary treatment modules using activated sludge technology and rated at 95 million gallons per day.

Teaming up with Broward County officials and Hazen and Sawyer, Chevron ES designed and built a biogas-to-energy system that will capture and utilize the digester biogas, the majority of which is currently being flared. The biogas will fuel a 1.6 MW combined heat and power (CHP) genset whose electrical output will offset purchased electricity at the plant. And biogas isn't the only byproduct being put to work under the new system. Waste heat from the genset will also be recaptured to heat the digester. Overall, the new system will cut the North Regional Wastewater Treatment Plant's carbon footprint by 30 percent with total annual energy savings over $1MM a year and the total program savings over the term is over $25MM.

Implementation of 1.6 MW Average Combined Heat & Power Digester Biogas Cogeneration System including gas cleanup system and waste-heat recovery system for digester heating, new FOG Receiving Station to increase and enhance digester biogas production by sustainably redirecting this resourceful waste-to-energy, and miscellaneous improvements at the North Regional WWTP digester complex.

Project Cost: $18.1MM

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Chevron Energy Solutions	Fort Lauderdale, Florida	ESCO Contractor
b.	Hazen & Sawyer	Hollywood, Florida	Wastewater Engineering
c.			
d.			
e.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER 2

21. TITLE AND LOCATION *(City and State)*		22. YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
City of Livermore	Livermore, California	2011	2013

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Livermore	Marc Roberts	925 960 4051

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Scope of Work:
Livermore and Chevron ES engaged in a unique partnership in the Fall of 2011 to find a way to implement the City's climate action plan, but more importantly, leverage and help its local businesses to share in the success. The Capacity Project is an integral component of the City of Livermore's aggressive sustainability program in partnership with Chevron ES, which launched last year. The program is expected to generate over $10 million is energy savings over its life. In addition to installing new solar panels at five sites throughout Livermore, the City also worked with a local company, Bridgelux, to retrofit over 7,000 streetlights with LED technology, helping to reduce energy usage and improve safety and visibility while also helping to fuel its local green economy.

As part of a larger comprehensive project that the City is undertaking, including 1.22MW of solar energy generation at these sites, energy efficiency retrofits, and electric vehicle charging stations, the City will retrofit 7,000 streetlights. The combined project yields more than $200,000 in savings per year. Importantly, the energy program is the catalyst that drives Livermore's innovative workforce development program that will prepare students for 21st century STEM careers.

The Capacity Project will help residents and business owners in partner cities identify free and low-cost ways to reduce energy usage and generate between an anticipated 9 to 20 percent savings on their utility bills. These savings will create more disposable income for households and lower expenses for businesses, both of which will increase spending and business expansion, helping to stimulate the local economy.

Project Cost: $12,500,000

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Chevron Energy Solutions	Overland Park, Kansas	ESCO Contractor
b.			
c.			
d.			
e.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*		20. EXAMPLE PROJECT KEY NUMBER
		3

21. TITLE AND LOCATION *(City and State)*		22. YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
North Carolina Central University (NCCU)	Durham, North Carolina	2010	2013

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
NCCU	Eric Frazier	919 530 6696

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Scope of Work:

In addition to Energy Saving ECMs, Chevron ES was able to address nearly $900K in deferred maintenance upgrades (i.e. supply fan replacements, pump replacements, electrical upgrades, steam coils, insulation repair, fume hood repairs, heat exchanger replacements, underground piping, etc.). Implementation also included installation of solar thermal system.

This project also provided North Carolina Central University with new premium efficiency steam boilers with stack economizers. These new steam boilers were sized and staged to efficiently meet the varying steam demands throughout the year with a guaranteed minimum fuel-to-steam efficiency in excess of 86%.

Size: 11 buildings (385,950 sf)

Project Value: $6,328,706

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Chevron Energy Solutions	Fort Lauderdale, Florida	ESCO Contractor
b.			
c.			
d.			
e.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER
	4

21. TITLE AND LOCATION *(City and State)*		22. YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Miami-Dade County	Miami, Florida	2002	2004

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Miami-Dade County	Ray Abrahante	305 375 5242

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Scope of Work: Chevron ES worked with Miami-Dade County to implement energy savings performance contract at the Metro Dade GSA Metro Annex and the Police Department Headquarters.

Phase 1 ECMs: demolition,removal and disposal of existing chiller, controls, condenser water piping and cooling tower; installation of high efficiency air-cooled chiller and auxiliary equipment.

Phase 2 ECMs: efficiency motors and variable frequency drives for cooling towers; variable frequency drives for air handling units; and installation of 600 ton high efficiency chiller with variable frequency drive.

Phase 3: Turner Guilford Knight Facility - we implemented design smoke management system and retrofit with upgrades to HVAC controls, OA control, motors and bi-fuel generator system.

Phase 4: Turner Guilford Knight Facility - companion retrofit project to repair the original smoke evacuation chases.

Project Value: Over $20MMM with different phases

Also, Chevron ES was able to implement a $1.6MM project at the Miami-Dade County libraries (10 sites). ECMs included lighting, air conditioning replacement, programmable thermostats, motor replacement, variable fan drive, meter cooling tower, chiller installation and DDC.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Chevron Energy Solutions	Fort Lauderdale, Florida	ESCO Contractor
b.			
c.			
d.			
e.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER
	5

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
City of Austin Austin, Texas Hornsby Bend Biosolids Management Plant	2007	2013

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Austin	Dennis Lilley	512 482 5319

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

The City of Austin has long been a leader in resource conservation and environmental protection. Subsequent to the initial inception of this project, the City implemented its Austin Climate Protection Plan, which seeks to eliminate impacts from municipal operations on global warming. A key goal of the Plan is to power all City facilities with 100% green power by 2012.

Scope of Work:
The purpose of performance contracting is to fund needed facility upgrades and improvements through energy and operational savings. Funding through this mechanism can allow municipalities to avoid using general budgets or capital improvements on projects that provide self-funding options. This frees up the use of the capital funding or excess savings to be used for projects that do not have self-funding characteristics

ECMs installed consisted of Heat exchangers, Piping / steam distribution, Pumps & primary systems, co-generation, landfill gas generators, single engine generator system,improved mixing and heat maintenance

Austin Energy (AE) and Austin Water Utility (AWU) have collaborated to develop the net metering approach for the biogas to energy project. Historically, the Hornsby Bend facility uses on average 4.38 Million kWh annually to process biosolids. The first 4.38 million kWh generated will offset the annual consumption. Electricity generated in excess of the facility offset will be sold to Austin Energy (AE). Deductions have been made for parasitic loads, operations and maintenance costs and the calculated down time required for these activities. The net positive available for debt service for the first year is $180,000 after the deductions are subtracted. Austin Energy (AE) applied for and received a USDOE ARRA grant for $1.25 Million for the project.

Project Size: 1200 acre facility

Project Value:$3,166,035

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Chevron Energy Solutions	Overland Park, Kansas	ESCO Contractor
b.			
c.			
d.			
e.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: 6

21. TITLE AND LOCATION *(City and State)*		22. YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Limestone County	Athens, Alabama	2009	2010

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Limestone County	Pam Ball	256 233 6400, Ext 3415

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Scope of Work: Limestone County elected to implement an energy savings performance contract in buildings throughout the County such as the Board of Education, County Commission, Courthouse, and Sheriff/Detention Center.

ECMs included:

Air-source heat pumps
Furnaces / heaters
New / replacement boilers
Air-cooled condensers
Economizers (air side)
Air handling units
Piping / steam distribution
Pumps & primary systems
Airflow control
Dampers / blowers
Energy management systems
Thermostats
Controls / motion sensors
Lighting retrofit
Lighting retrofits
Lamps and ballasts
Exit signs
Reflectors
Solar water heaters
Variable speed drives
New / replacement motors
Vending machines
Commissioning
Equipment scheduling controls
Metering / billing systems
Staff training
Low-flow showers / faucets
Low-flow toilets / urinals

Project Size: 13 Buildings (180,621 sf)

Project Value: $1,981,455

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Chevron Energy Solutions	Fort Lauderdale, Florida	ESCO Contractor
b.			
c.			
d.			
e.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER 7

21. TITLE AND LOCATION *(City and State)*		22. YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
City of Jacksonville	Jacksonville, Florida	2002	2004

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Jacksonville		

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Scope of Work: Our project encompassed a land mass of over 840 square miles and included the retrofit of over 1,013 traffic signal intersections with over 30,000 lamps using LED technology.

At the same time the traffic signal retrofit was being implemented, an additional $4 Million of additional energy retrofit work was being performed across 19 buildings in the City. ECMs included energy management systems, extensive HVAC upgrades, modification of kitchen exhaust system, 4.8 kW solar, solar domestic hot water and heating, and avoided thermal load of 57,000 Btu daily.

The astonishing aspect of this facet of the project was the timetable for completion. The retrofit was completed in a five month period from start of construction. All were successfully completed on time and within budget.

Project Size: 19 buildings (1,459,389 sf)

Project Value: $7,276,854

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Chevron Energy Solutions	Fort Lauderdale, Florida	ESCO Contractor
b.			
c.			
d.			
e.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: 8

21. TITLE AND LOCATION *(City and State)*		22. YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
State of Florida Department of Corrections, Region II	Tallahassee, Florida	1996	2006

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
State of Florida	Eric Bindley	904 368 2665

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

The Florida Department of Corrections (FDOC) Region II selected Chevron Energy Solutions to implement infrastructure improvements throughout 16 buildings (5MM sf) that totaled over $20 million in projects that included five (5) phases of construction.

Scope of Work

The EMCs included replacement of windows, building envelope improvements, laundry and kitchen equipment replacements, mechanical and HVAC upgrades, electrical and lighting upgrades, water conservation improvements, conversion of LP gas fired equipment to NG natural gas fired equipment, and decentralization of a large central steam plant.

The Florida Department of Corrections has enjoyed the enormous benefits associated with implementing the improvements using a self-funded GESPC that generates savings of $2,899,000 annually. The Florida Department of Corrections was so pleased with Chevron ES' performance on the first phase of this project that they chose to implement 4 additional phases with Chevron ES for a total of 5 phases over a several years.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Chevron Energy Solutions	Fort Lauderdale, FL	ESCO Contractor
b.			
c.			
d.			
e.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: 9

21. TITLE AND LOCATION *(City and State)*		22. YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
School Board of Broward County	Fort Lauderdale, Florida	2004	2006

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
School Board of Broward County	Robert H. Jindracek	754 321 4756

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Scope of Work: The School Board implemented phases with Chevron ES.

Phase 1 included these ECMs:

- Energy Efficient Lighting
- Water Conservation
- Time-of-Day Control for AHUs, Boilers, and EFs
- Variable Flow Chilled Water Loop
- Trash Compaction

Phase 2 included these ECMs:

- Ducts / fittings
- Energy management systems
- Thermostats
- Lighting retrofit
- Exit signs
- Metering / billing systems

Project Size: 11 sites (1,092,799 sf)

Project Cost: $4.2MM

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Chevron Energy Solutions	Fort Lauderdale, Florida	ESCO Contractor
b.			
c.			
d.			
e.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*			20. EXAMPLE PROJECT KEY NUMBER 10
21. TITLE AND LOCATION *(City and State)* City of Lawton	Lawton, Oklahoma	22. YEAR COMPLETED PROFESSIONAL SERVICES 2007	CONSTRUCTION *(If applicable)* 2011

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Lawton	Rick Endicott	580 581 3328

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Scope of Work:
A key feature of this project is the change-out of old water meters to new meters (over 29,000) enabled with automated meter reading (AMR) capabilities. The new meters are directly tied in to a fixed based communication system that saves the City significant costs and provides a greater level of accuracy that will in turn enhance billing and collection efforts.

Benefits of the new system include more accurate readings, reduced costs on insurance, redirection of manpower from meter reading to other core mission objectives, and the transfer of real-time information that will improve leak detection and other service capabilities.

Other ECMs implemented were:

Air cooled condensers
Energy management systems
Thermostats
Lighting retrofit (ballasts, exit signs, lamps)
LED traffic lights
Wastewater treatment plant SRT control and aeration
- Influent
- Nitrification aeration basin control
- Replace fine bubble diffusers

Project Size: 23 buildings (302,829 sf)

Project Cost: $13,827,774

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Chevron Energy Solutions	Overland Park, Kansas	ESCO Contractor
b.			
c.			
d.			
e.			
f.			

Hazen and Sawyer

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER **5**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Dixie Wellfield Improvements **Fort Lauderdale, Florida**	**2007**	**2007**

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Fort Lauderdale **Public Services Department**	**Miguel Arroyo** **Water and Wastewater Operations**	**(954) 828-7806**

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Size
The City replaced their existing lime softening facilities at the Peele-Dixie WTP with a 12 mgd finished water capacity nanofiltration water treatment plant.

Cost
$8,000,000 (est.)

Description
The City of Fort Lauderdale (City) provides potable water to approximately 245,000 customers. The City replaced their existing lime softening facilities at the Peele-Dixie WTP with a 12 mgd finished water capacity nanofiltration water treatment plant. The facility will go into full time service in mid 2008. The wellfield associated with the lime softening facility is capable of providing about eight million gallons per day (mgd). Due to limitations and the age of the existing wells, the City decided to construct a new 15 mgd capacity wellfield to replace the existing wellfield. The new wellfield went into full time service in mid-2007.

The City of Fort Lauderdale retained the services of Hazen and Sawyer to evaluate, permit, and design wellfield improvements for the Dixie Wellfield. The City elected to proceed with the Dixie Wellfield Improvements in a phased approach.

The following briefly summarizes the scope of work Hazen and Sawyer provided.

Phase 1 – Assessment and Test Well Construction
Phase 1 work included the engineering associated with the rehabilitation of two existing 12-inch diameter steel cased production wells at the Dixie Wellfield. Additionally, two new 24-inch diameter PVC cased production wells were designed and constructed. The rehabilitated wells and the new wells were tested to collect aquifer performance data needed for Phase 2.

Phase 2 - Modeling and Evaluation
Under Phase 2, the aquifer performance data obtained during Phase 1 was used to update the groundwater model of the City's wellfield. The updated groundwater model was then used to evaluate the ability of alternate wellfield configurations to provide a safe yield that did not induce the movement of the saltwater front. Alternative wellfield configurations included all new wells, all rehabilitated existing wells and combinations using new and rehabilitated existing wells.

The modeling results showed that all wellfield configurations considered were able to provide a safe yield of 15 mgd from the Dixie Wellfield.

Phase 3 - Wellfield Basis of Design
The purpose of Phase 3 was to evaluate the construction costs of the alternative wellfield configurations identified under Phase 2. Additionally, enhancements to the raw water transmission system, wellfield primary and backup power systems, and wellfield control system, were identified and evaluated.

Based on budgetary capital construction costs, present worth analyses, and other non-cost factors, Hazen and Sawyer recommended the final wellfield configuration and raw water transmission system improvements for design under Phase 4.

Phase 4 - Wellfield Design and Construction Services
Under Phase 4, Hazen and Sawyer provided engineering services during design and construction of eight water supply wells, a backup power system and about 15,000 feet of pipe. Construction was substantially completed on July 18, 2007.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Hazen and Sawyer, P.C.**	**Hollywood, Florida**	**Primary Consultant**
b.	**Hazen and Sawyer, P.C.**	**Boca Raton, Florida**	**Primary Consultant**
c.			
d.			
e.	**MacVicar, Federico & Lamb**	**West Palm Beach, Florida**	**Subcontractor**
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **1**

21. TITLE AND LOCATION *(City and State)*

Upgrade of George T. Lohmeyer Regional Wastewater Treatment Facilities
Fort Lauderdale, Florida

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
2008	2008

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Fort Lauderdale, Florida **Public Services Department**	**Julie Leonard, P.E.** **Assistant Utilities Services Director / Operations**	**(954) 828-7802**

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Size

Design and construction of a 38 mgd secondary plant.

Cost

$49 million (construction)

Description

The City of Fort Lauderdale is the lead agency in the Broward County Central Wastewater Region. The City's George T. Lohmeyer Wastewater Treatment Plant is designated as the regional facility to treat all wastewater generated in the Central Region. Smaller existing plants were to be abandoned, and treatment consolidated at one location, to reduce operating and maintenance costs and eliminate wastewater discharge to inland canals and waterways.

The original 22 mgd Lohmeyer WWTP was a two-stage pure oxygen activated sludge plant, designed to satisfy carbonaceous and nitrogenous BOD removal requirements. The highly treated effluent was discharged through an outfall into the Intercoastal Waterway.

Planning Process

Hazen and Sawyer engineering report detailing the design criteria of the 38 mgd secondary plant. The treatment works and hydraulic conduits were sized to pass a 100 mgd peak flow rate (versus 40 mgd existing hydraulic capacity) to handle future expansion and peak flow rates. Special odor control features were required due to the close proximity (within 200 feet) of a local shopping center and restaurants on the 17th Street Causeway (principal access to beaches and hotels from the airport).

Treated secondary effluent is disposed of by well injection into an aquifer 3,200 feet deep, instead of by a proposed ocean outfall. This decision was judged more cost-effective and environmentally sound.

Design Features

The 10-acre plant site was acknowledged to be limited for the original 22 mgd facility. Siting and constructing the modifications and additional facilities onto the site was difficult. The construction sequence was broken down into three major stages, which were further sub-divided into six substages in order to facilitate construction while maintaining the plant in operation.

The original use of high purity oxygen for the large municipal activated sludge plants was a relatively new technology. Certain operational problems with clarifier design and solids loading became apparent to the industry. Hazen and Sawyer in conjunction with the City staff, modified one clarifier for plant scale testing for approximately one year. Test data indicate that the modifications effected a significant decrease in tank short circuiting and enhanced solids capture.

The most recent advances in computer control and centralized utility management were incorporated into this plant. From a process viewpoint, the plant is relatively complex with rapid response needed to meet plant operating and control strategy requirements. From a management view point, process control, efficient manpower allocation, maintenance scheduling, and optimum energy utilization can be directed from the City's utility control center at another location.

Four 24-inch diameter injection wells were installed to accept secondary effluent some 3,600 feet below ground into a receiving aquifer known as the Boulder Zone.

Construction Phase

The United States EPA provided grants for all construction contracts. The City of Fort Lauderdale, in order to encourage competition, divided the program into twelve different construction contracts. Total construction cost was $49 million. Hazen and Sawyer provided construction management services and was responsible for coordination of all contracts and field activities.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.			
b.	**Hazen and Sawyer, P.C.**	**Hollywood, Florida**	**Primary Consultant**
c.			
f.			

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Tracie Lampton	Coordinator/Transformation Strategy Team	✘		✘	✘				✘		
Jay Pakarinen, PE	Senior Project Manager	✘		✘	✘		✘	✘		✘	
Bill Wilson, PE	Project Engineer	✘			✘			✘		✘	
Bill Davis	Project Engineer			✘			✘				
Rae Celestine-Honore	Project Engineer	✘		✘	✘						
Lisa Stickler, PE	AMR Specialist	✘	✘		✘				✘		✘
Richard Grubbs, PE	WWTP Specialist	✘				✘					✘
Adam Bogusch, PE	WWTP Specialist	✘				✘					✘
Sonny Ha	Lighting Specialist		✘	✘	✘						
Tim Smith	Construction Manager	✘		✘	✘		✘		✘	✘	✘
Dawn Johnson	Envision/Capacity		✘	✘						✘	
Steve Schulte, CMVP	M&V Management	✘		✘	✘	✘			✘		

29. EXAMPLE PROJECTS KEY

NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	Broward County Water and Wastewater	6	Limestone County
2	City of Livermore	7	City of Jacksonville
3	North Carolina Central University	8	Florida Department of Corrections, Region II
4	Miami Dade County	9	Broward Schools
5	City of Austin	10	City of Lawton

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

Refer to Chevron Energy Solutions' response of Qualification Statement/Submittal - Request for Qualifications, RFQ #946-11316, Engineering Services - Energy Performance Contracting, which this SF330 is part of the total submission.

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE

32. DATE

2/24/1

33. NAME AND TITLE

Laura Thompson, P.E. East Area General Manager

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: RFQ # 946-11316

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME: Chevron Energy Solutions Company, a division of Chevron U.S.A., Inc.	3. YEAR ESTABLISHED: 2000
	4. DUNS NUMBER: 12-776-241
2b. STREET: 800 Corporate Drive, Suite 706	5. OWNERSHIP
	a. TYPE: Corporate
2c. CITY: Fort Lauderdale / 2d. STATE: FL / 2e. ZIP CODE: 33334	b. SMALL BUSINESS STATUS: N/A
6a. POINT OF CONTACT NAME AND TITLE: Tracie Lampton, Southeast Regional Sales Manager	7. NAME OF FIRM *(If block 2a is a branch office)*: Chevron Energy solutions
6b. TELEPHONE NUMBER	6c. E-MAIL ADDRESS: tlmp@chevron.com

8a. FORMER FIRM NAME(S) *(If any)*	8b. YR. ESTABLISHED	8c. DUNS NUMBER
N/A		

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
2	Administrative	173	1
8	CAD/BIM Technician	2	
16	Construction Manager	13	2
18	Cost Engineer/Estimator	27	
21	Electrical Engineer	12	
42	Mechanical Engineer	45	1
48	Project Manager	35	2
	Other Employees		
	Total	307	6

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	9
b. Non-Federal Work	10
c. Total Work	10

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,00 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE: Laura Thompson

b. DATE: 2/24/14

c. NAME AND TITLE: Laura Thompson, P.E. — East Area General Manager

5. Project Manager's Experience

Provide a comprehensive summary of the experience and qualifications of the individual(s) who will be selected to serve as the project managers for the City. Individual(s) must have a minimum of five (5) years' experience in required discipline and have served as project manager on similar projects on a minimum of three previous occasions.

A dedicated Project Team led by Senior Project Manager Jay Pakarinen, P.E. will be assigned to the City's project. Jay has a total of over 25 years of experience in the HVAC industry, including engineering, analysis, and project management in the power distribution, utility load research, mechanical design, and energy performance industry.

He is a highly experienced Chevron ES Senior Project Manager who has for the past 15 years, led a consistent, stable, and long term team that together have developed and implemented a variety of performance contracts throughout the Southeast Region such as the Broward County School District, Miami Dade County, Broward County Board of County Commissioners Water and Wastewater Division, State of Florida Department of Corrections Region II, City of Jacksonville, City of Hialeah, Dade County Government, GA, numerous K-12 schools in Alabama and Mississippi, Limestone County and City of Prattville, AL, Alabama Department of Agriculture and NCCU (North Carolina Central University) just to name a few.

Not only does Jay possess the management skills required to manage a complex performance contract he is also technically experienced and brings the skill set necessary to develop and implement all aspects of an Energy Conservation Measure (ECM) including the financial acumen required to economically justify an ECM. He fully understands the unique nature of and can implement all aspects of the City's performance contract which has multiple layers of development, construction and on-going annual performance assurance. He brings the expertise necessary to ensure this energy saving performance contract is a total success for the City.

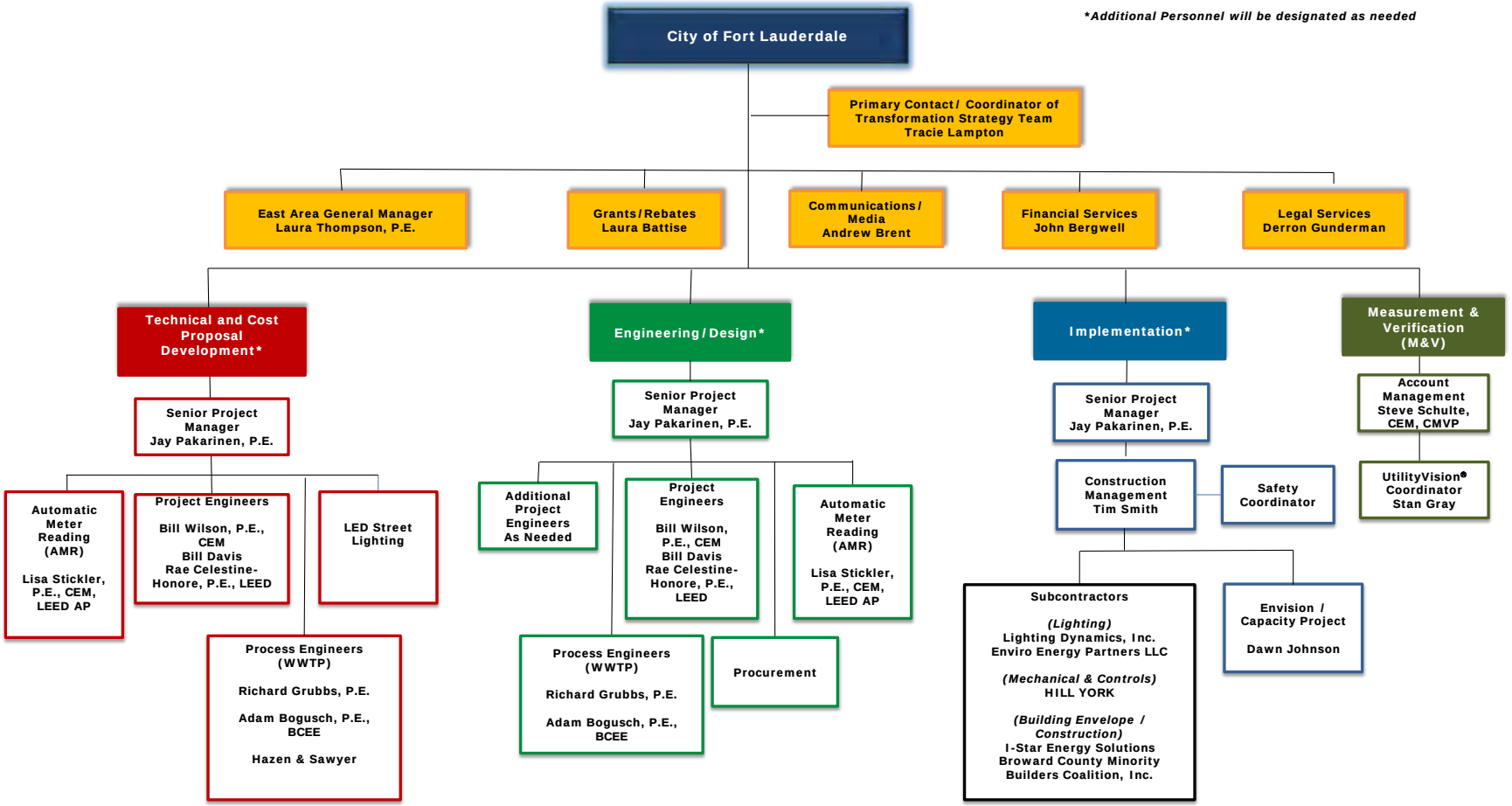
Assisting the Project Manager, we will also provide a Safety Coordinator, lighting experts including street lights; Automatic Meter Reading (AMR) system and water meter experts; highly experienced process engineers expert in water and wastewater treatment; building envelope experts; energy management controls; mechanical HVAC specialists and installers; technicians; measurement and verification specialists; and CAD (Computer Aided Design) operators and training personnel. In addition to the operations team, The City of Fort Lauderdale's team will also include a grants/rebate researcher and writer and a team lead for Envision/The Capacity Project which is a program geared to reach out to the City's residences and businesses for sustainable and energy efficiency efforts. The Capacity Project has been a resounding success at the City of Livermore and City of Patterson and we look forward if the City is interested, to bringing this program to the City of Fort Lauderdale. On our team is the local Minority Business Council. Not only will they help us incorporate small business participation in our project, we also look forward to including them in our Capacity Project.

We look forward to exploring our ideas with the city for community engagement through this endeavor or another that the City feels will best meet their needs.

Ultimately, we want to help the City formulate a unique program that goes beyond just energy savings to a fully comprehensive transformation strategy that aligns to the City's "Fast Forward Fort Lauderdale: Our Vision 2035". A Regional Manager will ensure the overall timely and successful completion of the transformation strategy to the City's complete satisfaction.

All members of the Project Management team, from the development of the audit to seeking rebates/grants to construction and implementation to promoting the City's sustainability program with our media specialists to community outreach to on-going monitoring of the guaranteed energy savings program are dedicated to ensure not only the success of the project but that we delight our customers. Key members of our team are provided in Section 5 of the SF330.

On the following page is an organizational chart reflecting the team members' involvement in the City's project.


*Additional Personnel will be designated as needed
City of Fort Lauderdale
Primary Contact / Coordinator of Transformation Strategy Team
Tracie Lampton
East Area General Manager
Laura Thompson, P.E.
Grants / Rebates
Laura Battise
Communications / Media
Andrew Brent
Financial Services
John Bergwell
Legal Services
Derron Gunderman
Technical and Cost Proposal Development*
Senior Project Manager
Jay Pakarinen, P.E.
Automatic Meter Reading (AMR)
Lisa Stickler, P.E., CEM, LEED AP
Project Engineers
Bill Wilson, P.E., CEM
Bill Davis
Rae Celestine-Honore, P.E., LEED
LED Street Lighting
Process Engineers (WWTP)
Richard Grubbs, P.E.
Adam Bogusch, P.E., BCEE
Hazen & Sawyer
Engineering / Design*
Senior Project Manager
Jay Pakarinen, P.E.
Additional Project Engineers As Needed
Project Engineers
Bill Wilson, P.E., CEM
Bill Davis
Rae Celestine-Honore, P.E., LEED
Automatic Meter Reading (AMR)
Lisa Stickler, P.E., CEM, LEED AP
Process Engineers (WWTP)
Richard Grubbs, P.E.
Adam Bogusch, P.E., BCEE
Procurement
Implementation*
Senior Project Manager
Jay Pakarinen, P.E.
Construction Management
Tim Smith
Safety Coordinator
Subcontractors
(Lighting)
Lighting Dynamics, Inc.
Enviro Energy Partners LLC
(Mechanical & Controls)
HILL YORK
(Building Envelope / Construction)
I-Star Energy Solutions
Broward County Minority Builders Coalition, Inc.
Envision / Capacity Project
Dawn Johnson
Measurement & Verification (M&V)
Account Management
Steve Schulte, CEM, CMVP
UtilityVision® Coordinator
Stan Gray

Summary
In summary, teamwork has been, and will continue to be a key to Chevron ES' success. Our mission is to help institutions and businesses improve their facilities through using less energy, paying less for energy, and ensuring reliable, high quality power for critical operations as well as a dedication to meeting each customer's unique strategies and goals for their municipality.

From the inception of your project to the on-going monitoring of your guaranteed energy savings our local office in Fort Lauderdale will be able to provide you service where we have been located for over 15 years. We have been Silver Sponsors of the Southeast Florida Regional Climate Change Compact and Broward P3 Eco Challenge, and Sponsored Florida's Serve to Preserve Global Climate Change Summits under Governor Crist – so we share the same vision for our community as the City of Ft Lauderdale. We have the highest accreditation with NAESCO and have been an approved ESCO on the Florida State Term Contract since its inception.

We provide a team of experienced local project managers, LEED and professional engineers, grants personnel, communication/media and specialized engineering expertise in key disciplines for each project. These teams are established, and have worked together on many projects. Our approach ensures continuity on projects whose span is five to twenty-five years. On each project, we extend the formation of this team to include the client in a co-authorship role. Understanding the facility needs, desires and goals of our clients is critical to implementing a successful project. We take pride in each one of our customers success and strive to delight our customers by going above and beyond. We believe our commitment to new innovation and strategies as well as helping our customers achieve their mission critical goals demonstrates our commitment. We utilize quality local subcontractors to assist us in implementation of our project that lead to creating local jobs for our community.

6. Approach to Scope of Work

Provide in concise narrative form, your understanding of the City's needs, goals and objectives as they relate to the project, and your overall approach to accomplishing the project. Give an overview on your proposed vision, ideas and methodology. Describe your proposed approach to the project. As part of the project approach, the firm shall propose a scheduling methodology (time line) for effectively managing and executing the work in the optimum time. Also provide information on your firm's current workload and how this project will fit into your workload. Describe available facilities, technological capabilities and other available resources you offer for the project.

We are excited about the opportunity to achieve for the City a comprehensive transformation strategy. Through the implementation of an energy savings performance contracting program, the City of Fort Lauderdale will gain access to Chevron best practices, world-class management processes and technology applications to help them achieve their mission critical goals.

With our program we want to help the City of Fort Lauderdale in the 6 ways below:

The results of the partnership will be that the City will save money and leverage those savings to pay for much needed improvements. Our commitment to the City is bigger than simply a guaranteed energy savings program. Our commitment includes education and outreach, enhance public safety, employ quality principles and best-in-class training and application of energy technologies for the city as well as local minority businesses, significantly impact GHG reduction and further the commitment of the Southeast Florida Regional Climate Change Compact, and create lasting change for our community. We are part of this community with a local office here in Ft Lauderdale. We understand the local environmental challenges and financial constraints that the City faces. We will develop solutions that can make a difference in the lives of city employees and the community.

We Develop Co-Authored Projects

We understand that this is **YOUR** program and we will work in concert with you to realize your expectations for what this program can achieve and be the guide to developing a project that maximizes savings and bring the best value to the City. From our viewpoint of evaluating some of your buildings – we believe the following are the key areas for the City of Fort Lauderdale to maximize energy and water savings beginning with potable and wastewater processes including water meters and the utilization of AMR. Water and wastewater processing is some of the most intensive energy usage for a municipality. Chevron employs a center of excellence comprised of water and wastewater process engineers with over 20 years of experience in that specialized discipline.

We also have on our team Hazen and Sawyer who is currently working with us on our project for Broward County and have implemented projects for the City as well as other local municipals water and wastewater divisions. Renewable technology including solar is an emerging trend across the country for reducing electrical usage. We are the country's largest integrated solar installer and will work with you to evaluate solar where it's economically feasible under FPL's rate structure. Upgrading street lights utilizing LED technology. We have implemented numerous street light and traffic light projects. At the City of Jacksonville we replaced over 30,000 traffic lights to LED generating significant savings. We have partnered with a local contractor for LED street lighting technology that has installed a demonstration project for the City.

Other strategies are replacing aged and inefficient equipment within your facility infrastructure such as indoor and outdoor lighting, heating and cooling equipment, kitchen equipment, water closets, faucets and showers, irrigation control, utilize better operational controls strategies and implement our community outreach program, The Capacity Project. We have partnered with the local Minority Business Council who will help us seek qualified local small business enterprises to ensure we meet and exceed your minority participation requirements as well as ensure we are stimulating the local economy. We have assembled a comprehensive team that is ready to go and hit the ground running.

Our people believe that success is driven by operating with excellence in everything we do. We provide reliable and affordable energy with an unyielding commitment to personal safety, process safety and environmental stewardship — by doing every task the right way every time.

We are an ESCO that has the capabilities and track record in all of those disciplines and we employ a vendor and fuel/utility neutral approach. We are not a utility nor affiliated with a utility or manufacturer of equipment – and therefore can dig deep and implement a program that will give you the **maximum savings** and also provide technology that is **most current, cost effective and efficient** for the City. The more savings we can generate at the best value the more the City wins.

We will work with the City to deploy a strategy that will help position the City as a leader among cities in the region. This approach will address the City's need for environmental and facility improvements, survey water and wastewater savings opportunities and map out a

communications plan that will let the stakeholders understand each step of the program and communicate the success. This process will assist the City in their vision as defined in *"Fast Forward Fort Lauderdale."*

Chevron ES has designed and implemented transformative programs for cities that have reduced costs, increased revenue, and improved organizational performance. Renewable energy, energy savings and water conservation serve as the foundation of our programs, helping cities take tangible steps toward sustainability goals while creating new savings streams that can redirected into the local economy.

We view sustainability as a means to increase a city's capacity to achieve key goals around economic development, workforce preparedness and community engagement, and our team has developed a series of strategies that link these priorities into a cohesive plan for city leaders to put into action.

Chevron ES is committed to the City of Fort Lauderdale. We understand how energy, economics, and the environment are linked, and we consider all possibilities – financial, technological, and operational – to design solutions that deliver relevant and lasting results. As a technology and commodity independent partner, our skilled engineering teams propose and design energy efficiency measures that completely meet our client's operational and performance needs. This allows us to innovate with the City and connect to cutting-edge, proven solutions. It allows us to explore partnerships with the City's own homegrown clean technology companies and spur job growth within the City, while providing a program that creates a cleaner, safer, and more sustainable Fort Lauderdale.

When developing the technical aspect of the program, Chevron ES utilizes three basic criteria to select and recommend specific energy conservation measures (ECMs) which are ***(1) City Need, (2) Economics and (3) Program Fit***. These are summarized below and are used to evaluate and recommend the measures for the City's project:

1. ***Owner Need*** – Is there a need that has been articulated by the City that can be addressed by implementing a specific ECM? We evaluate this during our engineering audits and conditional assessments of energy infrastructure and as communicated to Chevron ES during meetings and interviews with the City's staff and management personnel. We pay particular attention to which ECMs would improve revenues and provide cost recovery for the City as well as those elements that will help the staff improve lingering operational issues. We used the following criteria to evaluate if an ECM is appropriate or feasible:

    - Does a proposed ECM solve an existing problem?

- Does a proposed ECM increase the City's sustainable business planning now or in the future? Does a proposed ECM save money in other ways, for example, by reducing maintenance requirements?
- Does a proposed ECM help defer capital improvements so those capital dollars can be redirected and used for other City priority items such as improving aesthetics, replacing outdated equipment (the elevators in police station as an example), material upgrades and/or renovations, etc.?

2. ***Economics*** – To determine whether an ECM is appropriate and feasible for particular facilities and for set levels of comfort, we acknowledge the specific ECM is primarily intended to deliver operational savings to the City – **without affecting comfort or negatively impacting the city's infrastructure**. These savings will be comprised of reduced energy cost, maintenance savings, and improved operational effectiveness. The specific economic criteria used to evaluate an ECM are City-specific, but generally speaking, simple payback, return on investment, and/or present value have all been considered and used to evaluate specific ECMs and groups of ECMs. While evaluating the final list of ECM's, those ECM's that have a long payback, but would still bring value to the City, will also be listed in our report. Our goal for the City will be to propose a performance contract that will achieve the maximum contract value amount within the 20 year payback using the proposed bundled ECMs that provide the greatest benefit to the City along with addressing critical needs. We will also investigate incentives, grants and utility rebates that may be available for this project. We have a full time grant expert that conducts research to determine the availability of grants**.**

3. ***Program Fit*** – The City should seek to enter into a performance contract with an ESCO that provides the greatest benefits and satisfies the overall economic and operational objectives within a 20 year payback term. Chevron ES will develop an overall program of bundled ECMs that offers the City the greatest benefits - a self-funding energy performance contracting project that allows more infrastructure improvements.

Our value is in our lasting ability to be a sustained resource for the City. As we begin to understand the City's greatest challenges and future goals, we can craft a program that ensures we help you get to the place you want to be while being fiscally prudent and environmentally friendly. We will utilize our work as a platform to help the City achieve its greater goals around economic development and quality of life. Our in-house city strategist and media and communications teams will work closely with the City to develop an action plan that leverages the efforts of the energy program into something far greater.

The Capacity Project

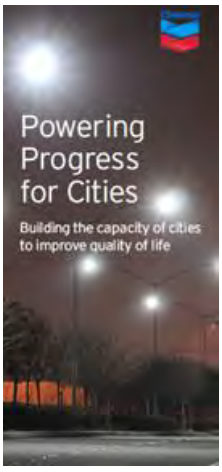
Cities are always looking for a way to reach out to their residents and business/community leaders with impactful positive programs – and The Capacity Project offers that and more. The Capacity Project (TCP) supports local economic and workforce development by empowering cities to help residents, students and small businesses reduce energy usage and save on utility bills. The program works directly with local schools to provide students with internships in which they provide energy

consultations to local residents. This innovative workforce development strategy helps students build transferable professional skills and prepare for future careers. TCP is currently being offered to cities through a collaboration of Chevron ES and WattzOn. At both the Cities of Livermore and Patterson, we have partnered with minority business councils to reach the small business Spanish speaking community, offer free energy efficiency consultations and provide NEST thermostats for installation through The Capacity Project™ (TCP). Residents can also enter monthly competitions for energy savings goals and receive coupons at local businesses which help spur local economic development.

The Capacity Project is an integral component of the City of Livermore's aggressive sustainability program in partnership with Chevron ES, which launched last year. The program is expected to generate over $10 million is energy savings over its life. In addition to installing new solar panels at five sites throughout Livermore, the City also worked with a local company, Bridgelux, to retrofit over 7,000 streetlights with LED technology, helping to reduce energy usage and improve safety and visibility while also helping to fuel its local green economy.

The savings from reduced utility bills can be directed to city services and programs that create a more vibrant and healthy community. For example, at Broward County Water and Wastewater Division, we are developing a nature path to educate the community on reuse water and drought tolerant plants that conserve our community's precious resources, at the City of Concord, the savings from a solar PV installation helped to keep a public pool open during the summer. At the City of Brea, the savings helped bring back some part-time Community Services staff and enabled the city to provide summer concerts and a family film series, as well as supporting critical programs for low-income housing and business retention activities. In short, we seek to help our municipal customers design an energy and community program that increases overall quality of life– a key component to attracting and retaining businesses.

Chevron ES Technical Approach



Chevron ES has successfully and repeatedly implemented projects similar in size and scope to City's proposed project, with excellent results. Assessment of existing conditions, timely scheduling, cost-effectiveness, energy savings and operational efficiency, environmental issues, quality control, agency regulations, operation, training, maintenance, and security and other elements may be included as part of our final solution for the City.

Chevron ES is committed to improving the environmental conditions of all city facilities. Our solutions are holistically focused on what steps are necessary for all of the City to become sustainable partners in this process. Specific areas where the Chevron ES program can impact the program are Environmental Quality (cost and comfort), Optimize Technology Capabilities, Implement a Preventative Maintenance Program and Life-Cycle Equipment Management.

The Chevron ES Project Manager, Jay Pakarinen, P.E., will oversee the team (he is highlighted in Item 5 above). Jay has overall responsibility for the entire project and will serve as the primary customer contact for the City when the project goes into design and construction. Table 1 lists examples of best practices in Chevron ES energy savings performance contracts.

Table 1: Examples of best practices in Chevron ES energy savings performance contracts

Best Practice	Benefits to The City of Fort Lauderdale
Guaranteed Construction Cost	No change orders
Guaranteed Annual Energy Savings	IPMVP for guarantee reconciliation
Open Book Pricing Methodologies	Overhead and markup disclosures
Gain-sharing Mechanisms	Unused funds applied to additional projects
Adhere to NAESCO Standards	Chevron ES is NAESCO-accredited at the highest level, Energy Service Provider

Using a disciplined approach to project planning and control, Chevron ES will identify cost and schedule parameters, then compare the status of the project performance against a project time duration and cost performance baseline. With input from our internal accounting (the actual dollars spent or committed), contract management, and project management (the actual delivery order performance), the project time duration and cost performance baseline will be continually monitored. This will provide a timely and visible mechanism for project progress on variance analysis, forecasting, and corrective action as needed.

In addition to providing accurate project status, use of the project time duration and cost performance baseline facilitates systematic risk control and management. Consistent therefore with our emphasis on low risk and optimal payback, we will identify, assess, manage, and reduce risks associated with project cost, schedule, and technical performance. Since cost and technical performance variations are largely affected by schedule variance, we require all schedule milestones to be flowed down to the subcontractor and material vendor level. We involve subcontractor team members in project planning and cost estimating to validate established goals and ensure low-risk project implementation.

We have developed an extensive document control system to ensure the quality and timeliness of all submittals to the City. Adequate internal controls and reviewing procedures help eliminate errors or omissions and ensure technical accuracy of all output. An in-house professional engineer reviews all our work plans before submittal to the City.

Quality Control

We apply the standards of our Operational Excellence Management System (OEMS), Chevron Corporation's company-wide quality control program, to achieve the highest possible standards at the levels of planning strategy and implementation. Executives and managers at all levels are accountable for enforcing OE standards and compliance is further monitored and verified by the independent Corporate OE Audit group.

Chevron emphasizes workplace safety in all aspects of operation. This is reflected in its strong EMR rating (Experience Modification Rate which accounts for Chevron ES activities) and

Chevron ES' Occupational Safety and Health Administration (OSHA) performance record. We reinforce our company safety culture with our subcontractors and our customers. We promote safe site conditions by example and we require our subcontractors to have organized safety procedures in place. We require them to abide by all OSHA regulations, as well as Chevron Compliance Policies related to safe work practices.

Technical Energy Audit (TEA)

Audit Fee

Chevron ES does not charge an *"upfront cost"* for the TEA. If the City moves forward with the installation of the ECMs as part of an Energy Savings Performance Contract (ESPC), the TEA fee will be incorporated in the cost of the ESPC.

However, if the City chooses to not move forward with the ESPC after Chevron ES has completed the TEA and it meets all of the City's requirements, a total audit cost will billed to the City (this will be stipulated in the contract and is usually a certain cost per square foot of audited space).

In bundling some of the facilities into one project energy savings from one facility can sometimes provide the means for updating equipment or adding new equipment to a facility that doesn't show savings. All of this is discovered in our TEA.

Development of the TEA

The TEA includes interviewing appropriate administrative and maintenance personnel regarding equipment usage, operating schedules, etc. This data is then used to calculate energy use of the facility with a computer energy model. Definitions of building shape, size, construction, occupancy, lighting, temperatures, schedules, controls, plug load, weather locale and other details are used to create the model.

The structure of the TEA report is:

a) *"Executive Summary"* - This section provides an overview of the project. We detail the cost and savings of the ECMs. Recommendations, including cash-flow scenarios are provided.

b) *"Data on Present Facilities"* – This section details all HVAC, lighting, controls, envelope, miscellaneous equipment, etc. at the facility.

c) *"Historical Energy Use"* – This section provides a month-by-month listing of historical energy use. From this information, an energy use baseline is determined (this baseline is used to calibrate the energy model described above). From this baseline, energy savings are calculated during the monitoring phase. Utility rates and energy usage indices are also included in this section.

d) *"Energy Conservation Measures"* – Recommended ECMs are described in this section, including descriptions of the current equipment, the proposed changes, and the impact to the facility environment.

e) *"Measurement and Verification Plan"* – Recommended plan for the measurement and verification of energy savings.

f) *"Environmental Impact"* – This section gives measurable results for things such as emissions reductions or asbestos abatement activities.

g) *"Appendices"* – The Appendices include modeling input and output data, maintenance recommendations, utility rate analyses and the measurement and verification plan.

Chevron ES will do roughly over $200,000,000 in revenues this year and nearly all of these projects will begin with the TEA. We have the experience and expertise to deliver a report that will not just end up on the shelf.

The following is our approach to performing an Engineering Survey with details in three (3) main areas: Field Analysis; Engineering Analysis; and Review Meetings.

I. Field Analysis

Confer with building personnel to ascertain type and condition of the mechanical and electrical systems in the building and operating procedures and schedules. Additionally, determine:

1. Lighting, temperatures, air changes, and other building requirements,
2. Recent building additions, and occupancy or procedural changes,
3. Current mechanical, electrical, process and operation problems,
4. Energy saving measures previously implemented,
5. Collect suggestions for energy saving improvements,
6. Deferred maintenance issues that may possibly be addressed.

Our survey engineers and technicians, under the direction of a registered professional engineer. The following measurements will be obtained, as appropriate:

Investigate the operation of major air handling systems:

1. Supply and OA air quantity,
2. Temperatures (return air, outside air, mixed air, hot & cold deck)
3. Motor electrical characteristics (volts, amps, Kw) - 5hp and larger.

Investigate the operation of the chillers and/or package units:

1. Review chiller logs and water treatment program or filter change,
2. Measure operating volts and amps,
3. Measure chilled and condenser water temperatures and flow,
4. Confer with building personnel on seasonal variations in operation.

Investigate the operation of the boilers:

1. Measure combustion efficiency of each boiler
2. Review boiler logs and water treatment program
3. Confer with building personnel on seasonal variations in operation.

Survey the domestic water heating systems:

1. Measure temperature
2. Determine usage

Survey the water and wastewater treatment equipment and processes for efficiency improvements

1. Chevron ES provides services to improve the operations, processes, energy efficiency and renewable energy production for municipal and industrial customers. However, Chevron ES' commitment to efficiency and environmental stewardship is not limited to the energy infrastructure arena. Our in-house staff is dedicated to developing specialized water and wastewater solutions and has engineered, procured, and constructed projects that include:
    a. Combined Heat and Power (CHP) projects using digester biogas and landfill gas
    b. Design and rehabilitation projects of anaerobic digester systems, including digester construction, gas handling, covers, mixing and advanced fuel cleanup systems
    c. Thermal heat recovery and reuse for digester and other heat load demands
    d. Installation of advanced digestion processes using multiple feed stocks to improve biogas production
    e. Improved process control strategies including plant redesign to remove antiquated processes that are high energy consumers with newer process technologies
    f. Installation of renewable power generation equipment including solar PV, fuel cells, dual-fuel micro-turbines and internal combustion gen-sets and applicable components
    g. Electrical/Power System Optimization, utility grid interconnections and electrical system improvements, including meter consolidation, electrical distribution system upgrades, and substation construction
    h. City-wide master planning for biosolids handling and treatment
    i. Chevron ES' expertise is rooted in our professional and technical in-house staff, which has extensive experience in engineering design and construction implementation of multi-faceted environmental projects throughout the nation. This work includes projects such as the City of Austin, Texas Hornsby Bend Biosolids Facility which is now making use of flared biogas, offsetting 100% of demand while supplying the Austin Energy Grid with its excess electricity generated. Our work in Lawton, Oklahoma provided improvements at the wastewater plant that allowed the facility to more efficiently use and transfer

oxygen to the activated sludge process to save energy and maintain permit compliance.

j. Chevron also owns and operates wastewater and water treatment assets similar to the ones owned and operated by the City of Fort Lauderdale. As a global explorer and provider of energy and fuel sources, we are acutely aware of and understand, firsthand, the sensitivity and critical importance of operating and providing services in a manner that is strictly compliant with not only legislative and jurisdictional laws, but also in a manner and spirit that exemplifies outstanding corporate citizenship. Our employees and their families work and live in the various communities we serve, and as such, operate in a manner to support and contribute to those communities.

k. Chevron constructs complex infrastructure projects worldwide and sees the value in working with team members that bring not only a specific expertise to the table but a culture of performance as well. Chevron ES is very pleased to have as part of our team on this Proposal the expertise of our local engineering partner, Hazen and Sawyer. While Chevron ES has the in-house expertise and capabilities in water and wastewater system designs and construction, we believe the value and benefit to the City is greatly enhanced by our combined team. We believe our team's expertise and experience in municipal water and wastewater process engineering and optimization, renewable energy and sustainability provide the City with an unmatched level of resources to ensure the team achieves project goals and objectives.

Survey water metering devices and opportunity for Automated Meter Reading to reduce costs as well as improve operational efficiency

1. We will work with your water meter team to gather information regarding water meters, existing systems if any, issues with reading meters, evaluate contractors or in-staff and review billing data.
2. From an initial evaluation we will determine if an opportunity exists for further evaluation that will incorporate meter sampling and testing, manufacturer evaluation, as well as the preferred type of AMR for the City.

Observe the operation of the temperature control systems and energy management system, verifying the sequence of operation, condition, and calibration of the control devices.

Survey the lighting system, space-by-space to determine:

1. Condition of lighting systems,
2. Lighting system performance *(measured and observed).* Includes representative foot-candle readings, energy use, glare and subjective quality of light, photometric studies
3. Cataloging of existing luminaries, lamps, ballasts, controls,
4. Luminaries quantity,
5. Maintenance methods and costs,
6. Occupancy hours,

7. Reflected ceiling plans, furniture layouts, luminaries schedules and control information. Ceiling heights, luminary heights and the colors (light, medium or dark) of wall, floor and ceilings will also be required,
8. Brief description of any problems, issues and concerns with existing lighting systems,
9. Photographs of the existing spaces,
10. Natural light and potential for use of day lighting measures.

The buildings will be completely surveyed and all relevant equipment reviewed for size, quality, efficiency, and effectiveness. The survey for heating and cooling will include questions covering eleven main subject areas:

- Building Exterior - General characteristics including floor-to-floor height, number of floors, dimensions, window type and exposure, exterior walls, and roof.
- Occupied Spaces - Infiltration rates including windows, types of heating/cooling systems, returns, perimeter, interior space characteristics, and heating/cooling season dates.
- Building Operation and Schedules - Indoor temperature range, average occupancy, hours of occupancy, heating setbacks, and unoccupied cooling.
- General Building Information - Heat reclamation, domestic hot water, fuel types, and heating in non-cooled areas.
- General System Data - Air systems for heating and cooling, duct characteristics, exposure zones, cold/warm-air/water mixing, and air volume.
- Air Handling Systems - Fan types, supply air temperature ranges, temperature control systems, and air handler operating schedules.
- Heating System - System type, fuel, capacity, hot water pumps, and auxiliary heating equipment.
- Ventilation System - Fan characteristics, use during unoccupied periods, and exhaust fan schedules.
- Cooling System - Areas served, compressors, cooling tower fans, condensers, and cooling schedules.
- Miscellaneous Heating and Cooling Equipment - Total kilowatts (kW) and horsepower (HP) of water distribution pumps, and maximum kW of electric resistance heating.
- Special Purpose Areas - Characteristics, requirements, and special equipment in kitchens, labs, and computer rooms *(i.e., number of computers).*

We will investigate identified heating, air conditioning, ventilation, lighting, or other problems, which could be contributing to excess energy usage.

We will review equipment shop drawings and temperature control drawings along with the buildings' architectural, mechanical and electrical drawings.

Chevron ES has an array of data-gathering tools and meters to perform our work accurately and efficiently when we conduct a site visit to a facility. Some of these tools are:

- Data Loggers kWh Logger (1000 amp & 2400 amp)
- Power Meter, Amp Logger
- Run-Time, Lighting, Occupancy, Temp. Logger
- TOU-CT Logger, Watt Stopper

- Digital Tachometer, Digital Manometer
- Type K Thermocouple Probe
- Pneumatic Calibration Tool Kit
- Balometer (flow hood)
- Combustion Analyzer Power Harmonics Meter
- Noise Dosimeter
- Fluke Surface Probe
- Data Sensor
- Digital Pressure Gauge
- Anemometer-Air Velocity Meter
- Digital Camera

After completion of the surveys and analysis, the Project Team begins the process of choosing appropriate energy conservation measures.

The general criteria used to select ECM's are listed below:

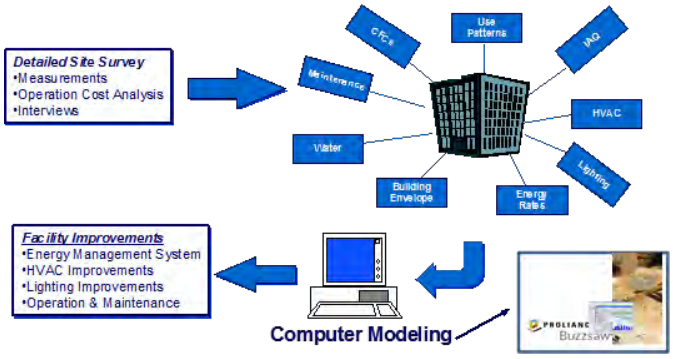
- Potential utility savings
- Available, cost-effective technology
- Building comfort issues and
- indoor air quality (IAQ)
- Condition of existing systems
- Life-cycle cost considerations
- Implementation considerations (disruption/interruption, outages)
- Training and support for maintenance
- and operation of installed ECM's
- Standards for quality control and
- performance measurement
- Comfort control issues
- Deferred maintenance issues

II. Engineering Analysis

During the engineering analysis, we will calculate building heating and cooling loads, and ventilation and air change requirements confirming that existing heating, cooling and air handling equipment properly matches the calculated loads.

Based on the data gathered during the site analysis, our engineers will develop an energy usage profile for electricity, water and natural gas consumption. This usage profile will be based on actual measurements.

All viable ECMs are then put in to the model and simulated over a full year of to determine their energy savings. *"Packages"* of ECMs are evaluated in the model to observe the interactive effects of the measures. For example, the effects on savings generated by implementing lighting (reduced heat load), will be will be accounted in HVAC and controls energy use.



The computer then simulates the energy use of the facility for a year taking into account the changing effects of weather, schedule variances, etc. To verify the accuracy of the model, the simulated energy usage is compared and calibrated to the history of monthly energy bills for the facility over a three-year period. The calibrated model then becomes the *"baseline".*

Next, a cost estimate of each ECM is determined, and the project's cost effectiveness is reviewed. The estimate entails developing schematic diagrams and performance specifications. We solicit price proposals from subcontractors, and estimate measures in-house. All savings and cost estimates are compared to database of past projects to validate their accuracy.

Analyze three years of utility data to identify historical changes in energy usage and electrical demand *(and why)* and determine energy use baseline for KW and KWH.

Analyze electricity and fossil fuel costs to confirm that the building is on the best rate/price structures.

Correlate and analyze all data gathered from surveys and interviews. Confirm that energy usage is within normal parameters for the specific type and usage of the building. If not within normal parameters, determine why.

Identify, develop and analyze all potential energy saving improvements. All aspects of the building and its systems will be considered in the process of identifying and developing savings opportunities.

(1) Operation and maintenance measures will be considered as well as capital measures.
(2) Interactive effects between measures will be included in the analysis.

Determine costs for the design, installation and project management of each ECM considered. Determine other financial impacts on each measure. Calculate simple paybacks and prioritize each measure according to financial return.

Then prepare and present the resulting TEA report to the City. This report includes a list of each viable energy savings modification with predicted annual savings, cost of implementation, and financial payback. We are thus able to assemble the most cost-effective group of energy savings opportunities possible – those that provide the greatest possible savings for the least investment.

III. Review Meetings

We will meet and communicate with City personnel throughout the development of the TEA. Through our experience we know that the involvement of the customer begins the ownership of the audit.

Initial organizational meeting, includes confirmation of final audit scope of work. The entire project will be scheduled with milestone dates. Specific responsibilities will be set forth for Chevron ES and the City's personnel and will be advised of particular needs and problems which should be addressed. This meeting will be held at the beginning of the on-site survey.

On-site survey meetings (50% and 75% review) will be held at certain completion posts of the site survey so as to assure proper coordination of the survey with the City. A major objective of the final meetings will be to review possible energy saving opportunities developed during the survey.

Final Report Meeting. This meeting will include a complete review of the final report including the plan of implementation as agreed to by the City.

IV. Communication with City Residents


Join Us on a LED Streetlight Pilot Site Tour

With some of our projects it will be necessary to engage the community and educate them on the enhancements we will implement. One of the prominent improvement projects that residents see is street lighting improvements. We have hosted tours for the community to come out and look at the pilot improvements and help educate them. We have found this tremendously beneficial for both the City and the residents.

City of Fort Lauderdale's Involvement in Provision of Data

Success of a guaranteed energy savings project is greatly enhanced when the ESCO and the customer form a partnership with clear goals and constant communication. The items listed below are types of information that Chevron ES would anticipate requesting of the City to ensure a strong partnership and sustainable savings.

Chevron ES understands that some of the information listed is difficult to obtain and/or not available.

Information Requested	Associated Time Periods of Information
Electric Bills	Most recent 3 years
Fuel Bills (Gas, Propane, Oil, etc.)	Most recent 3 years
Water Bills	Most recent 3 years
Utility Authorization Forms to contact utility companies on customer's behalf (as required)	Current form
Trash Bills	Most recent 1 year
Trash Pick-up Frequency	Current
Kitchen Production (meals per day)	Most recent 1 year
Laundry Production (loads per day)	Most recent 1 year
Building General Information (year built, renovations, area, occupancy, etc.)	All available
Building Automation System Information (temperatures, night setback, etc.)	All available
Building Floor Plans (Fire Escape Plans)	All available
Drawings (Mechanical, Electrical, Controls, etc.)	All available
Equipment inventories and/or lists	All available
Re-commissioning reports	All available
Asbestos, or other hazardous materials, reports	All available
Maintenance expenditures	Most recent 3 years
Service Contracts (HVAC, Roofing, Controls, Water/Chemical Treatment, etc.)	All available
Customer's 'Project Necessity' Items	All available
Customer's 'Wish List' Items	All available
Preferred Vendors	All available
Black Listed Vendors	All available
Preferred Contractors	All available
Black Listed Contractors	All available
Previous Energy Audits	All available

Engineering and Design

Engineering design begins after the ECMs have been approved by the City, third party reviews have been completed, financing is in place, and the implementation contract has been executed. Our Project Engineers work within the parameters of the cost structure quoted for each project. Assuming no changes in the City's requirements after agreement is reached to proceed with a project, any development costs not foreseen by Chevron ES or otherwise in excess of the quoted cost for any project are absorbed by Chevron ES in their entirety.

The review work involves examining all engineering analyses included in reports plus drawings and other documents pertinent to the design. The engineering design includes the preparation of drawings and scopes of work ensuring that the project is designed and built per codes and compliance. The same team undertakes the preparation of all design documents for implementing the project.

Our philosophy is to recommend the most cost effective and appropriate selection of products, suppliers and contractors for the immediate project. After analyzing the current system, sometimes the best approach for meeting the client's long-term facility requirements means utilizing equipment already in place without the added expense of having to replace it.

Chevron ES has an incentive to procure and engineer the most energy efficient equipment possible so that the maximum amount of savings can be secured to increase the number of projects that can be developed under the performance contract. Currently, our Energy Management Department is monitoring 25 different energy management systems.

When recommending equipment it is also important to consider criteria other than cost. Equipment performance, maintenance issues and manufacturer support are all important factors when considering the installation of equipment. Of utmost importance are the energy savings and the assurance that the particular piece of equipment is the right solution for the application. Chevron ES works in concert with each customer to select vendors and equipment that are going to meet the needs of the facility. Also, if there is a particular manufacturer of equipment or sub-contractor that the City would prefer, Chevron ES can accommodate. Utilizing the considerable buying power that Chevron ES has amassed, equipment can be directly purchased saving the customer the sub-contractor mark-ups.

Project Schedule

After award of work, we will develop a detailed project schedule, using Microsoft Project or any other software of the City's choice, jointly with the City staff. The project schedule will be broken down to a series of small tasks, which can be easily tracked. In the periodic (usually weekly) project meetings, the schedule will be updated and a look-ahead schedule reviewed.

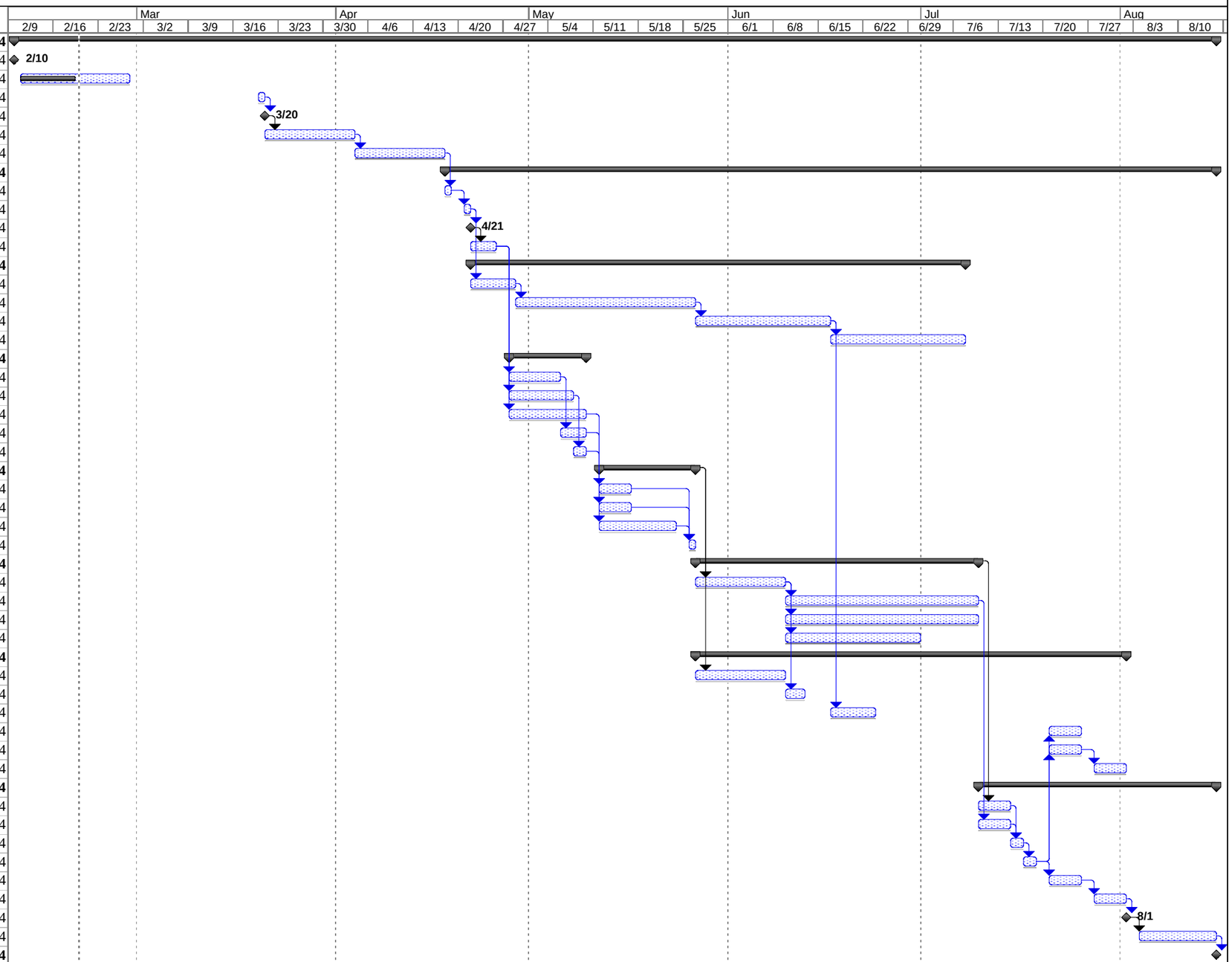
Chevron ES' preliminary audit schedule is estimated to be four months from the execution of an Energy Services Agreement to completion of energy audit phase. This four month period includes one month for field data collection, two months of data analysis and ECM development, and one month for final engineering and report development. See Audit Schedule below for more detail.

After City's review and approval implementation phase starts, this phase is typically four to eight months long depending on ECMs developed. The implementation phase has three parts, engineering design to develop construction documents, actual construction phase to procure and install the new energy efficiency improvements, and construction completion phase which includes commissioning, M&V processes and project close-out procedures. Chevron ES will provide a detailed construction schedule with energy audit report.

A Preliminary Audit Schedule that details the estimated timeline, milestones and critical activities for audit phase of the project is shown on the following page.

City of Fort Lauderdale
RFQ # 946-11316
Engineering Services - Energy Performance Contracting
RFQ & Investment Grade Energy Audit Timeline

ID	Task Name	Duration	Start	Finish
1	**RFQ & INVESTMENT GRADE ENERGY AUDIT TIMELINE**	**136 days**	**Mon 2/10/14**	**Fri 8/15/14**
2	City of Fort Lauderdale Issues RFQ	0 days	Mon 2/10/14	Mon 2/10/14
3	Chevron ES Submits RFQ Response	13 days	Tue 2/11/14	Thu 2/27/14
4	ESCO Oral Interviews	1 day	Thu 3/20/14	Thu 3/20/14
5	ESCO Final Ranking and Selection	0 days	Thu 3/20/14	Thu 3/20/14
6	Investment Grade Audit (IGA) Negotiations	10 days	Fri 3/21/14	Thu 4/3/14
7	Execution of IGA Agreement	10 days	Fri 4/4/14	Thu 4/17/14
8	**Investment Grade Audit**	**86 days**	**Fri 4/18/14**	**Fri 8/15/14**
9	ESCO Notice-To-Proceed	1 day	Fri 4/18/14	Fri 4/18/14
10	IGA Kick-Off Meeting	1 day	Mon 4/21/14	Mon 4/21/14
11	City Notification to All Building Operators	0 days	Mon 4/21/14	Mon 4/21/14
12	Field Assessment Preparations & Mobilization	4 days	Tue 4/22/14	Fri 4/25/14
13	**Utility Data Analysis**	**55 days**	**Tue 4/22/14**	**Mon 7/7/14**
14	Data Retreival from City	5 days	Tue 4/22/14	Mon 4/28/14
15	Data Compiling	20 days	Tue 4/29/14	Mon 5/26/14
16	Analysis	15 days	Tue 5/27/14	Mon 6/16/14
17	Identification & Development of Utility ECMs	15 days	Tue 6/17/14	Mon 7/7/14
18	**Field Assessments/Site Visits**	**10 days**	**Mon 4/28/14**	**Fri 5/9/14**
19	Team 1 - Parks - 53 Buildings	6 days	Mon 4/28/14	Mon 5/5/14
20	Team 2 - General Buildings - 44 Buildings	8 days	Mon 4/28/14	Wed 5/7/14
21	Team 3 - WTP & WWTP - 24 Buildings	10 days	Mon 4/28/14	Fri 5/9/14
22	Team 1 - Police & Fire - 53 Buildings	4 days	Tue 5/6/14	Fri 5/9/14
23	Team 2 - Parking Garages - 2 Buildings	2 days	Thu 5/8/14	Fri 5/9/14
24	**ECM Identification**	**11 days**	**Mon 5/12/14**	**Mon 5/26/14**
25	Team 1 - Parks, Police, & Fire	5 days	Mon 5/12/14	Fri 5/16/14
26	Team 2 - General Buildings and Parking Garages	5 days	Mon 5/12/14	Fri 5/16/14
27	Team 3 - WTP & WWTP	10 days	Mon 5/12/14	Fri 5/23/14
28	City Identifies Priority ECMs	1 day	Mon 5/26/14	Mon 5/26/14
29	**ECM Development**	**32 days**	**Tue 5/27/14**	**Wed 7/9/14**
30	Detailed ECM Scopes of Work	10 days	Tue 5/27/14	Mon 6/9/14
31	Issue SOW to Vendors for Fixed Costing	22 days	Tue 6/10/14	Wed 7/9/14
32	Energy Engineers Perform Savings Calcs	22 days	Tue 6/10/14	Wed 7/9/14
33	Detailed ECM Descriptions	15 days	Tue 6/10/14	Mon 6/30/14
34	**Technical Energy Audit Report**	**49 days**	**Tue 5/27/14**	**Fri 8/1/14**
35	Data on Present Facilities - Existing Conditions	10 days	Tue 5/27/14	Mon 6/9/14
36	Detailed ECM Desciptions - Finalize	3 days	Tue 6/10/14	Thu 6/12/14
37	Utility Baselines - Finalize & Methodology	5 days	Tue 6/17/14	Mon 6/23/14
38	Project Specific M&V Plan	5 days	Mon 7/21/14	Fri 7/25/14
39	Project Specific Commissioning Plan	5 days	Mon 7/21/14	Fri 7/25/14
40	Draft Review	5 days	Mon 7/28/14	Fri 8/1/14
41	**Project Review and Building**	**27 days**	**Thu 7/10/14**	**Fri 8/15/14**
42	ECM Savings Calculations Review	3 days	Thu 7/10/14	Mon 7/14/14
43	Vendor Cost Review	3 days	Thu 7/10/14	Mon 7/14/14
44	Generation of ECM Summary Tables	2 days	Tue 7/15/14	Wed 7/16/14
45	ESCO Preliminary ECM Selection	2 days	Thu 7/17/14	Fri 7/18/14
46	ESCO Quality Control Review	5 days	Mon 7/21/14	Fri 7/25/14
47	City Review of ESCO ECMs	5 days	Mon 7/28/14	Fri 8/1/14
48	City Identifies ECMs to be Included	0 days	Fri 8/1/14	Fri 8/1/14
49	ESCO Modifications per City's Request	10 days	Mon 8/4/14	Fri 8/15/14
50	**Final Investment Grade Energy Audit Report Delivery**	**0 days**	**Fri 8/15/14**	**Fri 8/15/14**



Date: Thu 2/20/14

Task | Progress | Summary | External Tasks | Split
Split | Milestone | Project Summary | External MileTask

Submittals

The engineering design includes the preparation of drawings and specifications. The same team undertakes the preparation of specifications for implementing the energy saving improvement project. The City approves these documents before they are submitted to contractors for final pricing.

Design drawings are developed for each ECM, using AutoCAD 2007-2009, as well as REVIT MEP and AutoCAD MEP 2009 when needed. Drawings are developed either from a stringent set of company CAD standards, based on the National CAD Standards, or from standards provided by the customer. Our CAD staff is highly experienced in the execution of all types of design drawings, including HVAC, Plumbing, EMCS, Lighting, and Photovoltaic. All design drawings will be provided to the City in electronic format.

Specifications prepared by our engineers generally follow the Construction Specification Institute (CSI) guidelines. The specifications are utilized to implement a single energy saving improvement or to cover a group of improvements to be undertaken at one facility or number of facilities. In either case, the specifications for all applicable facility upgrades (improvements) are assembled into a specification book. A scope of work section is prepared for each separate energy improvement measure.

Equipment Manuals

Chevron ES has been providing clients with useable Operations and Maintenance (O&M) manuals for many years. Chevron ES feels so strongly about the value of such documents being provided as a part of the deliverable that it is a contractual obligation contained in our standard Energy Services Agreements.

After the implementation of the project, Chevron ES will provide as-built drawings and O&M manuals to the City, both as a permanent record and as a training tool. Along with this submittal, we will provide a proposed training course content agenda and schedule for the City's approval.

For example, an eight volume Operations Manual was developed for the University of Kansas Medical Center. The manuals were provided for the main thermal plant, several different building automation controls systems, efficient lighting and water technologies as well as the steam and condensate systems.

The manuals were organized as follows:

1. As-Built Drawings
2. Product Information
3. Project Scope
4. Warranty Information

Warranties

We provide a full one-year parts and labor warranty on all items we install, beginning with the date of beneficial use. We also will honor and manage the replacement of equipment items under manufacturers' warranties, which extend beyond our one-year general warranty. Some parts and systems will include extended warranties as a standard (for example, refrigeration compressors will include a 5-year parts warranty).

As we have done for other clients, we can also offer the City an optional extended full-service warranty on all equipment items we install.

Warranties	
New Equipment Warranty *(Minimum 1 year)*	All equipment and systems installed under this program are covered with a minimum one-year parts and labor warranty. Some parts and systems will include extended warranties as a standard (for example, refrigeration compressors will include a 5-year parts warranty).
Long Term Warranties	All systems can be provided with a long-term extended warranty. This cost is identified during our TEA and is included in our final project cost and in most cases is paid from savings.

For example, we can provide full service and warranty on the energy management system (EMS) through the project's term. A warranty can be fit to the needs of the City. Some examples include a full (labor and materials) extended warranty, a materials-only extended warranty, and re-commissioning every two years.

Like the EMS, we offer extended warranties on HVAC equipment. Some examples include boiler and peripheral equipment extended warranty; boiler chemical treatment; chiller preventive maintenance only; chiller and peripheral equipment extended warranty; and cooling tower chemical treatment.

Procurement

Chevron ES has an incentive to procure and engineer the most energy efficient equipment possible so that the maximum amount of savings can be secured to increase the number of projects that can be developed and thereby maximize the value to the City. We have developed a comprehensive database of proven energy saving equipment. This database contains costs and savings information for the equipment that we have installed over the years. Our customers benefit from this information in the form of time tested costing and accurate savings estimates for specific equipment proposed for the energy savings program.

When recommending equipment, it is important to consider criteria other than cost. Equipment performance, maintenance issues and manufacturer support are all very important factors when considering the installation of equipment. Also, important is the assurance that the particular piece of equipment is the right solution for the application. We work in concert with each customer to select vendors and equipment that are going to meet the needs of the facility.

Some of the benefits of installing newer, more energy efficient equipment are reduced maintenance and operational expenditures. For example, new energy efficient light bulbs and ballasts last longer thereby reducing labor and replacement cost. New HVAC compressors with five-year warranties require less maintenance expense than the older compressors they

replace. Operational and maintenance savings can be theoretical unless they are supported by documentation and justified. Our performance contracting model allows for the inclusion of guaranteed energy savings and quantifiable operational and maintenance savings that have been reviewed and approved by the City.

Since Chevron ES is guaranteeing the savings resulting from the installation of the ECMs, it is imperative that only superior equipment be installed in a high quality fashion. If selected, we will request input from the City to finalize the list of quality local sub-contractors and equipment vendors. The design drawings and specifications will be issued to the sub-contractors and costing will be received for the installation of the ECMs. When selecting the eventual sub-contractors or equipment vendors, we will not necessarily take the lowest price, but will focus on delivering the best value for the City of Fort Lauderdale.

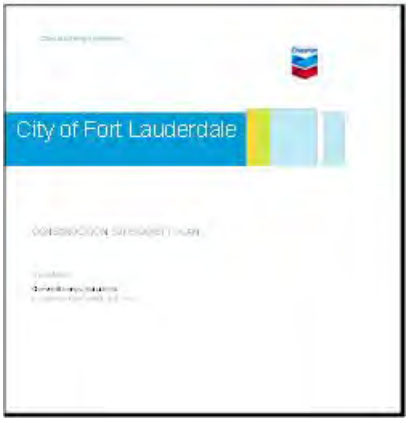
Grants and Rebates

To demonstrate our dedication to our partners, we employ a ***full time*** grants/incentives expert to seek grants that may be of interest to our partners and assist with the application process. A summary of the available funds is provided. These fund opportunities cover all phases of the work including funds to offset audit costs, rebates for the installation of the lighting upgrades themselves, and financing options with low interest rates. This extends far beyond the traditional list of *"facilities"* or *"energy conservation"* rebates, thus enabling us to provide a much broader base of support for our customers.

We can assist the City with obtaining these grants via assistance with the application process and continual monitoring of the grants that may be available.

We cannot guarantee the amount or receipt of any of the grants, rebates or incentives discussed herein; we expressly disclaim any liability for failure to receive any portion of such grants, rebates or incentives. Procurement, or lack thereof, of all or a portion of the grants, rebates or incentives discussed herein will not alter the amount payable to Chevron ES under this Proposal or the payment timeline associated with payment of such amount.

Construction



Safety

The rigor of our Operational Excellence Management System delivers continuous improvement in our ability to protect the safety and health of our workforce as well as the environment everywhere we operate.

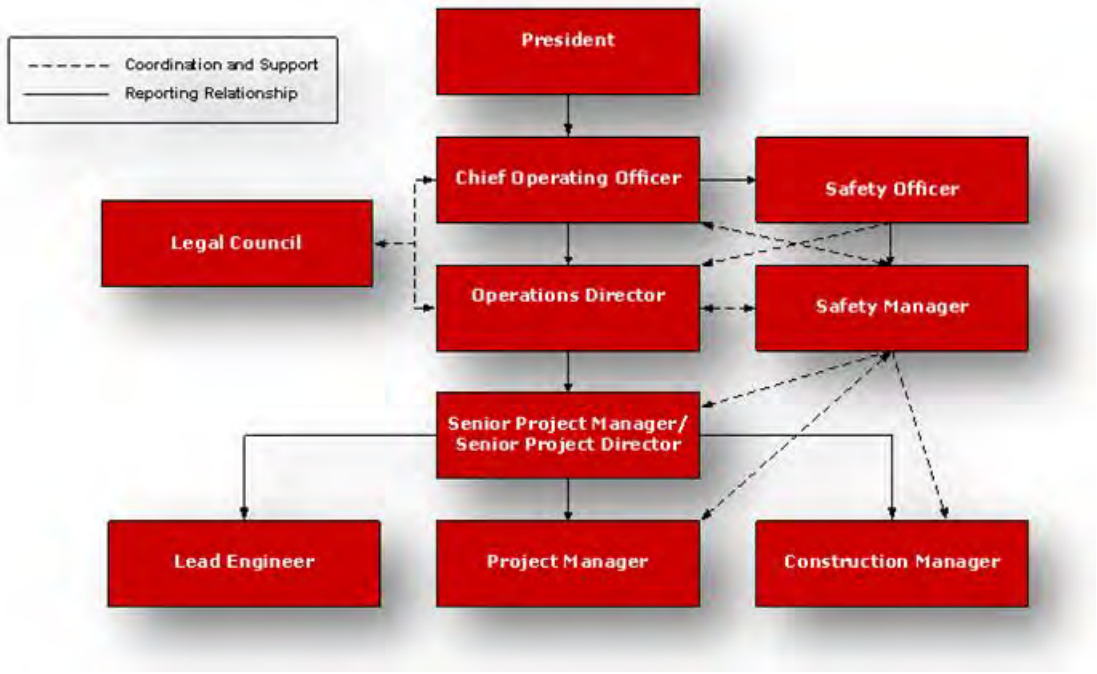
Safety planning begins with preparation of a site-specific Construction Site Safety Plan (CSSP) for each project to address conditions of the work area as well as safety requirements before work is performed. This Safety Plan is provided to all subcontractors as a manual and they are required to sign off on the plan.
The two characteristics for every Chevron ES's project are:

"*There's always time to do it right & Do it safely or not at all."*

We are so conscious of safety that every internal meeting that we have begins with a *"Safety Moment".* A Safety topic is discussed with all that are present to remind each of us that safety is our most important task. We carry that into our construction meetings to reinforce that with our subcontractors and our customers. We intend to promote safe site conditions by example and we require our subcontractors to have organized safety procedures in place. We require them to abide by all Occupational Safety and Health Administration regulations.

In order to minimize the disruptions and exposure to potential hazards of the staff and public in the City's facilities, our Construction Managers post upcoming construction activities. During the construction phase, the specifications dictate a strict set of rules regarding schedules, warning signs, barriers, storage of materials and the disposal of waste.

To further our plan we employ a full-time Safety Manager to enforce the CSSP and inspect work sites to ensure all requirements related to safety are addressed. Line of authority is shown on below.



Bottom line − The safety and quality of life of the staff and patrons of the City plays an extremely important part in developing these specifications.

Installation

Chevron ES manages all construction activities with staff Construction Managers. Construction management activities also include a focus on job safety, handling of hazardous materials and coordinating construction activities to ensure an absolute minimal disruption to the City.

We will provide construction management and assume responsibility for the proper installation of all equipment. The Project Manager works in conjunction with a Construction Manager on all construction activities. The on-site Construction Manager will ensure there is a managed process incorporating all of the City's inputs, goals and needs into a successful energy savings project. The Construction Manager's regular presence on a job site provides the opportunity to develop a close working relationship with the City's staff.

The Construction Managers are responsible for construction scheduling, subcontractor and vendor coordination, safety programs, security issues, permits and licenses, and progress meetings with subcontractors and vendors. They inspect all work of the subcontractors for compliance to design and performance specifications.

Chevron ES has Standard Operating Procedures for Construction. A detailed timeline outlining and scheduling the construction activities will be used to assure timely completion, close coordination with the City's other activities, and minimal impact on facilities operations. At the start of each phase of the construction project, our Construction Manager will meet with City staff, and subcontractors. This meeting will address issues such as sensitive work areas, allowable work schedules, the nature of the work, etc. Additionally, during the construction process our Construction Manager will hold routine meetings to discuss the progress of the project, potential interruptions to the facility activities, and other construction related details with all necessary personnel, including the City's representatives.

We will coordinate all contractor activities and monitor all installations to confirm that they are properly performed in a manner consistent with specifications and safety regulations. Throughout the life of the project, our personnel will authorize all contractor payment requests in conjunction with the City's procedures and will perform inspection and final approvals with the City's designated staff.

In our experience, the majority of disruptions and conflicts with building operation and use can be avoided through proper planning and communication. Chevron ES can provide for review detailed construction and communication plans that we have used on other, similar projects. The potential for disruption is much higher during the project construction phase than audit phase

Construction administration starts after specifications to implement the energy savings improvements have been issued. Construction administration generally involves the following activities:

Construction Administration Activities	
Pre-selection meeting	Interim inspections
Proposal evaluation and selection	Process monthly progress payments
Construction contract is issued	Final inspections
Pre-construction meeting	Monitor training required of contractors
Review submittals	Execute completion document

Once the contract is consummated, a pre-construction meeting is set up to review the contract, set schedules for submittals, estimate delivery of purchased equipment, schedule installation measures, identify interim inspection points and discuss project payment requirements. Project work and payment schedules are formalized after this meeting and used for project control purposes. Interim inspections are made to ascertain whether work conforms to the specification, acceptability of work quality, percent of total project completion, and what payment amount is justified. Any shortcomings are noted, verbally called to attention of the contractor, corrective action is outlined and results of inspections are documented and sent to the contractor. To ensure the construction phase is successful here is a sampling of the critical responsibilities we provide:

SAMPLING OF CRITICAL RESPONSIBLITIES	
RESPONSIBILITY	**DESCRIPTION**
Scheduling	We will be sensitive to the patrons and staff while working inside the buildings and on floors to be as non-disruptive as possible and ensure we clean up as we go along replacing lighting or other measures
Security	All Chevron ES personnel and subcontractors will wear an ID badge or Chevron ES shirt identifying them while they are on the property; sign in at the main entrance, as required. All on-site personnel will be required to successfully complete both the OBCI and FBI back ground checks
Communication	Coordinating of schedules leads to a smooth construction process. Communication is key in the process and the Construction Manager will meet regularly with your personnel on all activities of the construction phase.
Safety	Chevron's global work force is dedicated to the belief that all accidents are preventable and a zero-incidents goal is attainable. Every employee and contractor working for the company strives for incident-free operations, and manages risks to prevent injuries, illnesses and accidents. Safety and health responsibilities come first, last and always.
Disruption of Utility Services	Any type of shut off of utilities will be coordinated with your representatives, i.e., installation of new chiller/boiler.
Hazard Materials	Hazardous materials are considered as the presence of asbestos, materials containing asbestos, pollutants, and/or hazardous wastes which may be encountered during the renovation process. In the unlikely event that additional areas of hazardous materials are identified as a result of work by our or our subcontractors, we will immediately stop work, take measures to reduce contractor or building personnel contamination, and immediately address the removal and disposal of the material in accordance with Federal, State and Local codes.
Parking Issues	It will be determined where the Project Team and subcontractors can stage the equipment that will be delivered as well as parking vehicles or trailers, should there be a need.
Securing of Equipment	All equipment for the renovation that is being utilized or that will be stored will remain secured.
Clean-up	Site clean-up will be done on a daily on-going basis. As part of your project, we (or our subcontractors as appropriate) will be responsible for the removal from the property and expense associated with the removal of all normal construction debris, rubbish and non-usable material.

Disposal and Recycling

Chevron ES as part of every energy savings project, provides a Recycling and Disposal Program during the construction phase. Below is detailed information on what will be provided.

Chevron ES has a long history of providing a comprehensive recycling and disposal program with every project to maintain an environmentally safe workplace.

Recycling and Disposal Program

Recycled Items *	Recovered or Disposed of **
Fluorescent Lamps	PCB Ballast
Non - PCB Ballast	Construction related chemical waste
	Standard construction debris & refrigerants
* All recycled materials will be handled and removed by a specialized company in conformance with all Local, State, and Federal Agencies. Certificates of each load will be provided as part of the closeout documents.	
** Disposal of PCB Ladden Ballast and construction related chemical waste will be removed in accordance with all Local, State, and federal Agencies. Refrigerants will be recovered and disposed of as required.	

Part of the every energy performance project, Chevron ES or our subcontractors will be responsible for the removal of all normal construction debris, rubbish and non-usable material from the property and the expense associated with the removal.

The following sustainable design practices could be employed by Chevron ES to further address efficient use of resources:

- We can establish a waste management protocol for the project in conjunction with the City staff and communicate that to City of Fort Lauderdale and all subcontractors during initial meetings. The protocol will be enforced on a daily basis and performance will be review at weekly job meetings.
- We will recycle all fluorescent lamps and ballasts removed as part of this project. Lamp recycling includes the recovery of mercury, aluminum, glass, and calcium phosphate (used for cleaning up oil spills). Metals recovered from ballasts and ballast capacitors are incinerated. Metal will be recovered as appropriate from motors, piping, and other equipment removed as part of this project.
- During any demolition work, recyclable materials will be sorted from waste. Materials in good condition that could be reused is separated from material destined to recycling. It is expected that waste generated on site during construction, including equipment boxes, pallets, and wrapping, will be set aside for recycling to minimize non-recyclable material. We will also require the use of low-VOC paints, sealants, caulks, and other such materials that may be used as part of this project.

Commissioning

Commissioning, as defined by ASHRAE guidelines, is the process of ensuring that systems are designed, installed, functionally tested, and capable of being operated and maintained in

compliance with the intent of the contract documents. Requirements and expectations of the commissioning process will vary from project to project.

Commissioning is a critical process in guaranteeing project performance. It is the act of verifying the proper operation of the applicable system and equipment, and documenting that system performance either does or does not meet engineering design criteria. In theory, there would be no need for commissioning if all design, manufacturing, construction, and operations were correctly executed, completely coordinated, and totally functional. However, this does not always happen, and detailed commissioning is typically required, especially if the project has an associated energy saving guarantee.

The Chevron ES Project Team will perform commissioning in conjunction with our subcontractors and equipment providers. We have extensive commissioning experience with performance contracts as well as energy management systems (EMS) installations, solar projects and new construction start-ups. Commissioning is a critical process in project performance. It is the act of verifying the proper operation of applicable systems and equipment, and documenting whether system performance does or does not meet design criteria. Systems not working will be reported to provider for correction.

Point-to-point examination of all installed equipment ensures that performance standards are met 100 percent. Unless control systems are properly and thoroughly commissioned, chances are high that the system will not function as designed. Our commissioning team follows-up the installation of equipment by all subcontractors to make sure it is working properly. This commissioning is accomplished during system and equipment start-up. At that time, proper operation and control is verified, as well as other critical items such as proper flow rates and delivered temperatures. Both Chevron ES and a designated City staff member will be present at the start-up and commissioning of the equipment and systems. This process places us in the position of a third-party advocate for the City.

Along with the standard procedures for commissioning, there are checklists for each ECM. For example, a point-by-point hardware and software commissioning of the EMS is performed. A copy of the ECM specification, schedules, drawings, approved submittals, and any applicable utility rebate forms are all provided to the Construction Manager for commissioning.

During the construction phase, but particularly during the commissioning phase of the project, Chevron ES may find items that need to be addressed by the City. These items generally include any malfunctioning existing equipment that affects energy savings or proper overall system operation. As items are found, City of Fort Lauderdale staff will be notified and asked to correct the problem.

Some of these examples are as follows:

- Dirty filters
- Leaky pneumatic thermostats
- Leaky pneumatic lines
- Damaged/un-calibrated thermostats
- Loose/leaky flexible ductwork or AHU vibration joints

- Loose or missing fan belts
- Malfunctioning valves (steam or hot water)
- Leaky steam traps
- Malfunctioning EP or EPT's
- Dirty/clogged condensing or evaporator coils
- Malfunctioning/leaky/misadjusted dampers

The following is an outline of our Commissioning Plan approach:

Organization. The Commissioning Program for all systems will be managed and implemented by the Project Manager and/or Construction Manager team. This team is responsible for the implementation and oversight of the program as well as all commissioning activities associated with the delivery of each specific EMC as well as the total project.

Responsibilities and Authority. The Project Manager / Construction Manager duties include the oversight and implementation of the Commissioning Plan and related procedures and policies as applicable to a particular project. Duties include the coordination, implementation, and documentation of the project commissioning activities, ensuring the processes are performed in a timely and quality manner.

Quality and Subcontractors. Subcontractors are informed of commissioning requirements and are actively involved with the commissioning process as required, which assures a timely and quality installation. Installations performed by either subcontractors or self-installation are subject to the same commissioning processes.

Testing and Inspection. Our Project Team will perform system start-up and commissioning per the contract requirements and manufacturers specifications. We will perform a point-to-point examination of all installed equipment which ensures that performance standards are met. Unless each piece of equipment, every device and all environmental controls systems are properly tested and thoroughly commissioned, chances are high that the systems will not function properly. The intent is to verify the system components for which the Project Team is responsible and the operation of the systems they interact with to ensure the function as required. This commissioning is accomplished during system and equipment start-up. At that time, proper operation and control is verified, as well as proper flow rates, delivered temperatures, etc. to ensure the original engineering design intent is accomplished.

Component Testing. Our Project Team will perform component testing in accordance with the contract documents and/or manufacturers' specification to ensure that each component operates as originally intended.

Operational Testing. Our Project Team will check each system for proper function throughout the entire sequence of operation to meet the engineering design intent and will verify proper operation of each item in the sequences of operation, including all hardware operation and software programming.

Final commissioning documentation will be provided to the City.

Each section will have a major checklist and any pertinent documentation and reports that show that the commissioning was completed.

City Staff Training

Chevron ES will provide training during construction, commissioning, and start-up and re-training is available throughout the term of the City's energy savings performance contract program. Our personnel fully understand the importance of training in achieving and maintaining predicted energy savings over time, and recognize that training can easily be the forgotten energy savings measure. That's why it is so critical that the City's maintenance and operations staff understands not only the operating procedures for the new equipment, but their role in maintaining savings.

Chevron ES has a vested interest in ensuring that facility personnel know how to properly operate and maintain newly installed equipment. Savings will be directly affected if the equipment isn't run properly. And that's why we will involve the City's facility staff members over the course of the energy savings performance contracting program by gathering their input through the study, design, and construction phases — to ensure that they are both knowledgeable and committed to the success of the energy savings performance contract program. Through this training new and existing equipment life can be extended, proper operation and maintenance can be ensured for sustainable ongoing operations.

Tailored Training

Chevron ES does not have a one size fits all training program. We have extensive experience in providing training for facility personnel because we tailor our programs for each project based on the goals of the client. We have trained client personnel for projects ranging from simple lighting retrofits to highly complex environments.

Prior to the start of any training program, we work with the City to develop a complete list of proposed training activities incorporating any specific training goals, schedule requirements and staff skill set assessments into the plan. We will produce a training manual for the project. After the training manual is finalized, we engage as many staff personnel as appropriate in the actual training activities – typically building operators, maintenance personnel, and other staff members.

A typical program, based on the individual needs of the customer would include the following components:

a. Engineering Design and Intent
    i. Design goals
    ii. Existing conditions, needs, comfort issues
    iii. Proposed Improvements and Rationale of Energy Savings
    iv. Baseline – Design parameters based on occupancy and temperature standards for the facility

b. Operation of Major HVAC Equipment Systems
    i. Operation of the equipment, additional need for manufacturer training is assessed.
    ii. Factory Certified Training can be facilitated onsite and these sessions can be recorded for use in new hire training or retraining
    iii. Major components of the systems are thoroughly reviewed
    iv. Operation manuals are developed, provided and reviewed with maintenance personnel
    v. On-going maintenance needs are reviewed as well as review of any longer term warranties. This strategy is co-authored and is based upon the current level of skills residing with in-house personnel. Chevron ES and the City of Fort Lauderdale will together formulate a long-term training program that best suites the needs of each member of the City of Fort Lauderdale's staff. The training may be a combination of on the job training at each respective location, as well as formal off-site classroom instruction.
    vi. Chevron ES personnel can provide detailed as-built drawings for each project and provide a comprehensive set of record drawings that depict the actual work completed.
c. Energy Management Control Systems
    i. Understanding of the sequence of operations and operation manuals
    ii. Understanding of the design parameters and occupancy schedules
    iii. Operational training of the front end and/or web-based systems as well as the points and individual control components
    iv. Detailed training by the controls manufacturer
    v. Review of diagnostics, alarms
    vi. On-going maintenance needs are reviewed
    vii. Factory Certified Training can be facilitated onsite and these sessions can be recorded for use in new hire training or retraining
d. Lighting
    i. Understanding of each component, typical lamp replacement when required and longer term warranties.
    ii. Review of lighting controls if applicable
e. Other
    i. Understanding of other energy management measures and operational needs following the general guideline above.
    ii. **Communication Protocols** – Chevron ES has experience setting up communication protocols including procedures for communication for event escalation, notification, response, documentation, and follow-up. We can train appropriate staff on the protocol, ensuring swift and appropriate responses in case of emergencies.
    iii. **Emergency Planning** – Chevron ES can assist your staff in designing or updating any emergency response processes and procedures impacted by the project.

Chevron ES will work closely with the City's staff and build a strong relationship based on cooperation and communication. Along with the formal training, participants will be provided Operation and Maintenance manuals. We feel so strongly about the value of such documents being provided as a part of the deliverable that it is a contractual obligation contained in our standard Performance Based Energy Services Agreement.

The manuals are organized as follows:

1. As Built Drawings
2. Product Information
3. Project Scope
4. Warranty Information

Sample Course Offerings

Chevron ES has developed a variety of comprehensive training programs and workshops for Operation and Maintenance professionals and we have included below a sample of our course offerings. As technology advances, we strive to improve and introduce relevant training programs designed to keep customers up to date. Our offerings include workshops and seminars covering energy management, temperature controls, mechanical and refrigeration systems, and building control systems. Much of the training is structured to provide hands-on experience and practice along with laboratory theory, thus increasing the effectiveness of instruction.

Table 1 summarizes typical Chevron ES course offerings, and Table 2 describes examples of past training provided to our customers.

Table 1
Typical Course Offerings

Training	Duration	Attendees	Content/Objective
Energy Conservation	1 day	All employees and staff	ESPC program; Energy Conservation Measures (ECMs) being installed and their effect on the building's environment; current energy usage and cost; and planned energy savings. Question-and-answer period. Goal: to develop employee "ownership" in the project.
HVAC Fundamentals	1 day	Staff, O&M and maintenance personnel	Operating details of major equipment and components.
Control Loop Theory, Part I	1 day	Staff, O&M and maintenance personnel	How and why controls function.
Control Loop Theory, Part II	1 day	Staff, O&M and maintenance personnel	Advanced control loop instruction.
Calibration of Pneumatic Controls	1 day	Staff, O&M and maintenance personnel	Component calibration, including significant hands-on laboratory practice.
Calibration of Pneumatic Auxiliary Devices	1 day	Staff, O&M and maintenance personnel	Auxiliary device calibration, including significant hands-on laboratory practice
VAV AHU Systems	1 day	Staff, O&M and maintenance personnel	Operation and function of variable air volume AHUs and associated boxes.
Primary Equipment	1 day	Staff, O&M and maintenance personnel	Overview of primary equipment operation

Table 2 Examples of Training Provided to Chevron ES Customers		
Customer	**Energy Conservation Measures**	**Training Provided**
Bowie State University	Boiler System; Chiller Systems; HVAC Improvements	Comprehensive initial training by boiler manufacturer (United Energy Products) and chiller manufacturer / HVAC improvements installer (York International). Local utility provided a natural gas safety program for university staff. Follow-on training on proper system operations and maintenance by CES technical staff as part of their semi-annual site visits, or as needed.
Chabot Las-Positas Community College District	Energy Management Control System; HVAC Improvements; Lighting and Water Retrofits, Boiler Replacements	Initial training by EMCS manufacturer (Allerton) and HVAC improvements installer (York International). Comprehensive lighting overview and maintenance training package by lighting contractors. Ongoing and annual training by CES.
North Carolina Central University	Energy Management Control System; HVAC Improvements	Training for lighting and water provided by Lighting and Water contractor. Training for Controls and HVAC Improvements provided by Newcomb Mechanical. Boiler Startup & Operations Training provided by WC Rouse. Controls & Boiler operation training provided by CES.
Pima Community College District	Energy Management Control System	Initial training by EMCS manufacturer (CSI). Ongoing and annual training by CES.
Miami-Dade Police Facilities	Lighting & Water, EMS for HVAC	Training for lighting and water provided by installing contractor RTS. Training for Controls and HVAC Improvements provided by AMSI Mechanical. CES provided on-going training support after installation.
Wilson College	Lighting Retrofits; Building Envelope Modifications	Comprehensive lighting overview and maintenance training package by lighting contractors. Initial maintenance training program for energy-efficient windows by contractor/installer. Ongoing and annual training by CES.
Independence Public Schools	Building Envelope Modifications	Initial maintenance training program for energy-efficient windows by contractor/installer. Ongoing and annual training by CES.
Adams County Ohio Valley School District	Building Envelope Modifications	Custom-developed, high-technology-roofing maintenance training program by contractor. Coordination of ongoing training by CES.

Site Specific Safety Training Program

The Chevron ES Project Team is focused on constructing all projects in a manner that results in Injury Free, Incident Free, and No Adverse Environmental Impacts (collectively “Injury Free”). We are uniquely qualified to fill this role due to best practices refined over many projects as well as the company’s focus on safety and uptime, as required of all our projects.

In order to prevent or minimize construction-related business interruptions to mission critical facilities and operations, the Chevron ES Project Team will follow a Site Incident Prevention Plan (SIPP). The safety and quality of life of staff and visitors plays a primary part in developing these specifications. The SIPP guides the identification and communication of risks in the areas of new construction, facilities maintenance, and upgrade/repair of existing equipment as it relates to personal injury, equipment damage, and/or an interruption to facility operation. All

applicable Chevron ES subcontractors who perform work on our projects receive training on the SIPP process and are required to follow it.

Behavior Modification Training

As we referenced earlier, additional savings can be made by changing the behavior of the facility staff. This would include training staff to turn off lights when rooms are unoccupied, reasonable thermostat settings etc. We would be happy to coordinate information to employees on what they can do to impact savings.

Training Program (ECM Specific)

Training for the ECM's installed is one of the most important parts of an energy program. Chevron ES is dedicated to providing owner's training to all related City personnel responsible for working on or operating the installed ECM equipment.

It is critical that the City maintenance and operations staff understands not only the operating procedures for the new equipment, but their role in maintaining savings. We want to ensure that facility personnel know how to properly operate and maintain newly installed equipment. Savings will be directly affected if the equipment isn't operated properly. We will involve the City facility staff members over the course of the energy savings performance program by gathering their input through the study, design, and construction phases. This will ensure that they are both knowledgeable and committed to the success of the energy savings performance program. With this training, new and existing equipment life can be extended, proper operation and maintenance can be ensured for sustainable ongoing operations.

Examples of Training

ECM Description	Training during Construction	Training after installation *
Lighting Systems	2 hours	2 - 4 hours
Domestic Water Systems	2 hours	2 - 4 hours
HVAC Systems	2 hours	4 - 8 hours
HVAC Control System	2 hours	Three 4hour sessions (min.)
** HVAC Control System Training works best to have multiple training sessions for the selected operator(s) to feel comfortable in using the new Energy Management Control System.*		

- **Factory Certified Training** – We can also facilitate onsite training by a factory certified instructor. These sessions can also be recorded for use in new hire training or retraining.
- **Operations and Maintenance Manuals** - Along with the formal training, participants will be provided Operation and Maintenance manuals.
- **Vendor Training** – We can facilitate vendor training for any of the equipment installed for your project. This training can be done onsite or presented in a computer based model.

- **As-Built Documentation** – Our personnel will provide detailed as-built drawings for all trades on each project and provide a comprehensive set of record drawings that depict the actual work completed.
- **Training Strategy** – this strategy is co-authored and is based upon the current level of skills residing with in-house personnel. Chevron ES and the City staff will together formulate a long-term preventative maintenance program that best suites the needs of each member of the City's staff. The preventative maintenance training may be a combination of on the job training at each respective location, as well as formal off-site classroom instruction.
- **Warranty Management** – We will provide complete documentation of all project warranties, and will train the City's staff on how to administer any warranty calls and repairs.

Project Closeout Functions

The project closeout functions include the following:

- **Certificate of Final Completion for Subcontractors:** Once all punch list items for a specific scope of work, subcontract, or building have been completed, inspected, and accepted by Chevron ES and the City, all 1st tier contractor lien waivers obtained, and all final construction documentation has been provided, then a Certificate of Final Completion for Subcontractors shall be executed. All parties shall sign this document.

- **Certificate of Final Completion** *(between City and Chevron ES):* Once all punch list items for the entire project have been completed, inspected, and accepted by Chevron ES and the City, and all final construction documentation has been provided, then a Certificate of Final Completion shall be executed.

- **Final Documentation Package:**
  Working with the subcontractors, the Construction Manager shall assemble two complete sets of the final documentation package for the County. This package shall include the following:

  a. As-built drawings.
  b. Manufacturer's Warranty Certificate for material warranties (ballasts, etc.).
  c. Signed Substantial Completion forms with warranty details.
  d. Signed Final Completion forms.
  e. Signed Training Completion forms.
  f. Corrected and accurate design documents, including sequence of operation, spreadsheets, etc.
  g. Corrections to submittals, as occurred during construction.
  h. Documentation that all hazardous materials removed as part of the project (such as PCB ballasts, refrigerant, etc.) has been properly handled and disposed/recycled/incinerated.

  O&M manuals from each Subcontractor which shall include instructions on how to operate the equipment, instructions on how to maintain the equipment (including frequency and

details of preventative maintenance), material data sheets, and a list of equipment installed with manufacturer's product numbers.

Monitoring, Measurement and Verification

Chevron ES has one of the largest; most experienced Energy Management (Monitoring) Departments in the industry. The manager of the team is a registered professional engineer with over 25 years in performance contracting. He leads a team of full-time dedicated staff, with over 200 cumulative years of experience in performance contracting. The Energy Management Department has overseen hundreds of guarantees and currently has over 90 clients with on-going guarantees that total over $500 million.

We have implemented over a billion and a half dollars in energy projects and have one of the highest success rates in achieving guaranteed energy savings of any ESCO in the industry.

Divisions of Energy Management Department

The depth and diversity of the personnel prepares them to handle a variety of ongoing services. In general, these tasks are overseen by three divisions, each with its own area of expertise.

1. ***Energy Accounting*** **-** Headed by a manager who has overseen M&V of performance contracts for the last 17 years, this team oversees the guarantee portion of the monitoring contracts. They are responsible for analyzing the utility consumption, generating the monitoring reports, tracking changes to the facilities, and maximizing the energy savings. This team includes on-site dedicated Energy Resource Managers for some of our larger contracts.

2. ***Electronic Monitoring*** **-** The Electronic Monitoring Division has extensive experience in monitoring, commissioning, and troubleshooting over 25 different types of Building Automation Systems. This group has daily responsibility for tracking the performance of the building automation systems installed or upgraded as part of virtually all Chevron ES contracts. Building Automation System installation/improvements often account for 25% of the energy savings on a project, but their effectiveness can be diminished over time by building occupants through "unmanaged equipment-overrides". Through systematic periodic monitoring of these systems, unintentional overrides and control component failures are detected and reported back to our customers before substantial energy savings are lost.

3. ***On-going Support*** **-** We have as part of the Project Team, the Energy Accounts Manager who will be the City's on-going primary contact throughout the duration of the project term. On-going monitoring also means that any problems that may occur with building operation will be discovered in a quick and timely fashion, thereby helping

maximize the opportunity to correct operational problem before substantial savings are lost.

Environmental Reports

Clean energy is good for the environment. This fact is clear. Through the energy savings performance contract with Chevron ES, the City can effectively address issues of resource and energy management, pollution and waste reduction. Reductions in emissions, sewer output, and other pollutants are just some of many ways that the City can reach its goals, in bettering the services to the community, and also in helping to preserve the Earth.

Chevron ES is proud of the positive contribution our projects make to the outdoor environment. Our best-in-class energy management group is as adept in quantifying emissions impact of projects as they are the energy savings of projects. Since 2000, Chevron ES has developed hundreds of projects across the United States. **We estimate that our projects are reducing GHG emissions by more than 4.8 million metric tons.** The projects included in the analysis were all projects sold up through the end of 2010 for which we perform savings measurement and verification.

Emissions reductions fall into two categories: direct and indirect. **Direct** reductions are attributable to a reduction in the consumption of fossil fuels on our customer's site while **indirect** reductions occur at the power plant stack. Although the EPA has not yet settled the matter of who gets credit for the emissions reductions associated with a reduction in electricity consumption (end user or utility), we calculate the actual direct and indirect emissions reduction resulting from the projects we install at each of our customer's sites. Emissions information is viewable on UtilityVision, our on-line vehicle for communicating energy savings project performance to our customers.

Some examples are shown below:

- **Impact on Pollution (Propane Gas-Fired Furnaces)** - The annual emissions of NO_x, SO_x and CO_2 from gas-fired boilers can be reduced due to reduced gas consumption from the implementation of certain ECMs.
- **Indirect Emission Reduction** - Indirect emissions are defined as the emissions associated with generating electricity at the utility's power plant. Chevron ES has identified a range of energy conservation measures that can result in reduced electric consumption. This reduced consumption will result in reduced NO_x, SO_x, and CO2 indirect emissions generated by the power plant.

In addition to energy, operational, and maintenance savings, the implementation of this project will reduce the environmental footprint of the City thus assisting in attaining the City's goals of reducing the City's carbon footprint by 20% by 2020.

As part of the Monitoring M&V Report, graphs reflecting the reduction in emission can be submitted.

- **Environmental Impact on Pollution** - The annual emissions of NO_x, SO_x and CO_2 from gas-fired boilers can be reduced due to reduced gas consumption from the implementation of certain ECMs. What does this mean for reducing emissions? The reduction of 1,000

tons of carbon dioxide (CO_2) from the air correlates to taking 200 cars off the road. *(See Figure 1)*

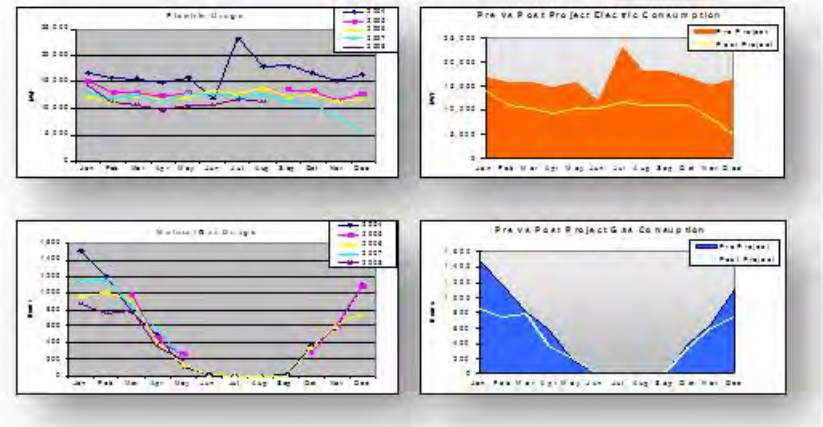
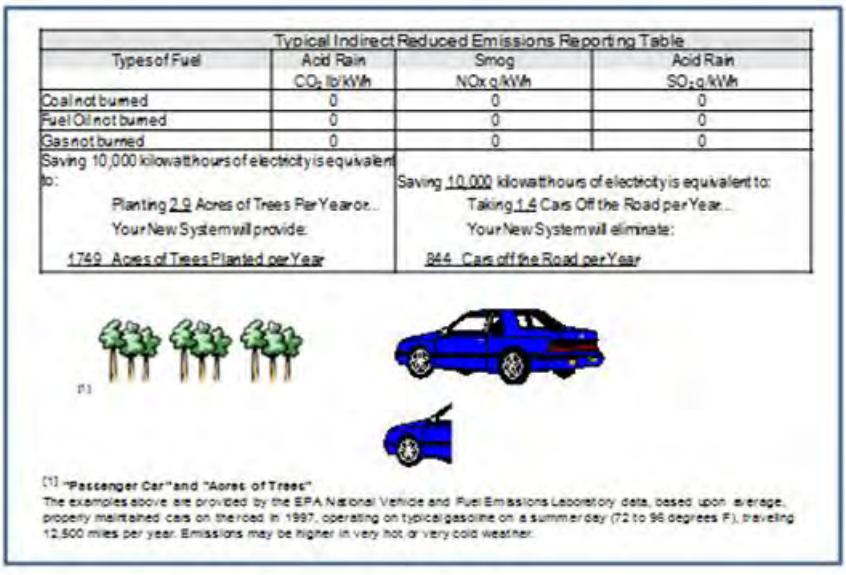


Figure 1

- **Indirect Emission Reduction** - Indirect emissions are defined as the emissions associated with generating electricity at the utility's power plant. Chevron ES will identify a range of ECM's that can result in reduced electric consumption. This reduced consumption will result in reduced NO_x, SO_x, and CO2 indirect emissions generated by the power plant. (See *Figure 2*)



Typical Indirect Reduced Emissions Reporting Table

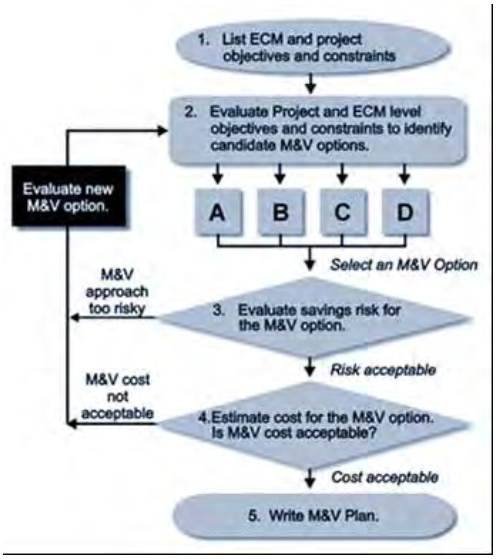
Types of Fuel	Acid Rain CO_2 lb/kWh	Smog NOx g/kWh	Acid Rain SO_2 g/kWh
Coal not burned	0	0	0
Fuel Oil not burned	0	0	0
Gas not burned	0	0	0
Saving 10,000 kilowatthours of electricity is equivalent to: Planting 2.9 Acres of Trees Per Year or... Your New System will provide: 1749 Acres of Trees Planted per Year		Saving 10,000 kilowatthours of electricity is equivalent to: Taking 1.4 Cars Off the Road per Year... Your New System will eliminate: 844 Cars off the Road per Year	

[1] **"Passenger Car" and "Acres of Trees"**
The examples above are provided by the EPA National Vehicle and Fuel Emissions Laboratory data, based upon average, properly maintained cars on the road in 1997, operating on typical gasoline on a summer day (72 to 96 degrees F), travelling 12,500 miles per year. Emissions may be higher in very hot or very cold weather.

Figure 2

Savings Verification

A key to successfully achieving the predicted savings of this project will be the accuracy of the energy baselines and the measurement and verification of savings. To assure confidence in these processes, we will follow the *International Performance Measurement and Verification Protocol (IPMVP).* This protocol is recognized by the National Association of Energy Service Companies (NAESCO) as the standard guideline of how savings resulting from energy conservation projects should be measured.



The IPMVP defines four broad options for measurement and verification of energy savings. Each option is applicable to specific situations and oftentimes, more than one option is possible. Multiple options are:

Option A	Largely stipulated parameters, instantaneous measurements may be incorporated.
Option B	Predominantly end use measurement techniques, some stipulated parameters are allowable.
Option C	Utility Billing Analysis
Option D	Calibrated Building Simulation Analysis

Often overlooked is the necessity of identifying the M&V plan coincidently with the project development. In some cases, it is necessary to drop or ignore a portion of savings associated with a specific measure for the simple reason that that portion is immeasurable, or unreasonably expensive to measure.

Due to the variables and dynamics that are unique to each performance contract, and often to each facility within a performance contract, an individual M&V plan must be developed for each situation (see “Project Specific M&V Plan” earlier in this Section). While the specifics may vary, the general method employed will always follow one of the techniques outlined in the IPMVP Guideline.

The following chart details the four IPMVP potential M&V methods:

IPMVP Measurement and Verification Methods	
Options	**Description**
A Partially Measured Retrofit Isolation	This option allows for the energy savings to be calculated using a sampling of field measurements combined with stipulated parameters. A possible application for using this option would be for lighting efficiency improvements whose performance may be relatively stable and not interdependent with other measures. The savings for the lighting upgrade would be quantified by measuring before and after power consumption for a representative sample of lighting circuits and by stipulating or agreeing to the hours of operation of each circuit.

IPMVP Measurement and Verification Methods	
Options	**Description**
B Retrofit Isolation	Energy savings performance of energy conservation measures are evaluated and verified at the-end use site. Option B techniques are designed for projects where long-term continuous measurement of performance is desired and warranted. Under Option B, individual loads are continuously monitored to determine performance; and this measured performance is compared with a baseline to determine savings. A possible application for Option B measurement would be for chiller efficiency improvements in a setting of continuous change at a facility.
C Whole Building	Option C verification techniques measure savings by comparing the post-retrofit overall energy use in a building or facility with pre-retrofit energy baselines. Implicit in this measurement option is the necessity of identifying and accounting for the effects of changes to the facilities during the measurement period that are beyond the scope of the measures installed. The impact of building additions, changes in operating hours, remodeling projects or other changes implemented by the customer during the measurement period must have their energy impact accounted for if the true savings from the energy conservation measures is to be assessed. This process can be time consuming and expensive in facilities that are very dynamic.
D Calibrated Simulation	Option D verification techniques calculate savings by utilizing a carefully calibrated hourly building simulation model to examine building performance before and after the digital implementation of energy conservation measures. Obviously, a high degree of comfort in both the simulation and the operator is necessary for this method to work to the satisfaction of both parties.

Typical M&V Methodologies

Technology	M&V Approach	M&V Description
VAV Conversion	Option B	Savings determined by field measurement of energy use of the systems to which the ECM was applied, separate from the energy use of the rest of the facility. Short-term or continuous measurements are taken throughout the post-retrofit period.
Compressed Air Decentralized	Option B	
Air Handling Units	Option B	
Lighting Upgrades	Option A	Savings determined by partial field measurements of energy use of the system(s) to which an ECM was applied, separate from the energy use of the rest of the facility. Measurements may be either short-term or continuous. Some, but not all, parameters may be stipulated.
Heat Recovery	Option A	
Unit Heaters	Option A	
Geothermal Heat Pumps	Option C	Savings determined by measuring energy use at the whole facility level. Short-term or continuous measurements are taken throughout the post-retrofit period.
Controls DDC Programmable T-Stats HVAC Equipment Replacement	Options A and C	Option A – Savings for secondary fuel (propane) determined by partial field measurements of energy use of the system(s). Measurements may be either short-term or continuous. Some, but not all, parameters may be stipulated. Option C – Savings determined by measuring energy use at the whole facility level. Short-term or continuous measurements are taken throughout the post-retrofit period.

Formulas

Dollar savings are calculated by multiplying the energy incremental rate (e.g., $/kWh, $/kW, $/Therm) by the energy units saved. Adjustments will be made each year to the incremental rate

to account for increasing utility rates. There are a number of methods of accomplishing this. For example, the Consumer Price Index or the actual increase/decrease in the utility rate structure may be used. The City's staff will approve the adjustment method that is used. The use of a pre-arranged inflation index or flat utility rate structure establishes a floor and ceiling for utility energy costs.

The procedures for assigning dollar values to energy, water and O&M savings are described in the following paragraphs.

Energy
Energy savings are developed by running a comparison simulation to the baseline model in which only one parameter is changed. That one parameter would be the implementation of the energy conservation measures. The electric and fuel rates are built into the simulation such that the difference in the overall energy consumption and dollars would establish the savings from the ECMs being analyzed.

Example: Established Base Line = 1,500,000 gallons
Actual Usage = 1,000,000 gallons
Energy Savings = 500,000 gallons
Unit Rate = .05 per gallon
Savings Dollars = $25,000
Guarantee = $19,500
Windfall Savings = $5,500

Water
Water savings are developed through a utility billing analysis in comparison to the water consuming fixtures and systems within the facility. A usage model is developed such that the calculated consumption matches the billing history. Initial flow measurements are taken to establish the baseline consumption and compared to the consumption of the new fixtures or systems. The calculated water consumption reduction is subsequently billed on the current water and sewer rate schedules to develop the dollar savings.

The procedure for calculating water savings is as follows:

- *Established Base Line – Actual Usage = Energy Savings*
- *Energy Saving x Rate = Dollars Saved*
- *Dollars Saved – Guarantee Amount = Windfall Savings Dollars*

Operation and maintenance (O&M)
Operation and maintenance *(O&M)* savings are established by thorough review of the extensive maintenance records provided by the City. The service calls are categorized into lighting, controls, air handling equipment, chillers, boilers, unitary equipment, and other. The annual operating and maintenance costs avoided through the implementation of the energy conservation measures are developed by attributing all, or a portion of, the maintenance cost directly affected by the energy conservation measures. The energy conservation measures could affect maintenance costs through new or extended warranties or re-commissioning of an existing system.

We begin by reviewing budget and expenditure reports with the City staff to gain an understanding of what types and quantities of supplies and parts are purchased on an annual basis. Sometimes a review of a major vendor's purchasing history is necessary. In addition, we will review maintenance contracts and outsourced maintenance items with the City staff. Finally, we will calculate the effect of the energy conservation measures on budgets and recommend to the City amounts that can be used as savings.

Another significant maintenance cost reduction is associated with the replacement of the older inefficient HVAC systems within the buildings. Replacement of the older HVAC equipment with new equipment will reduce maintenance costs outside of the regular preventative maintenance that is performed on this type of equipment. Additional costs associated with repairing ceilings and cleaning or replacing carpeting due to water leaks in the water source heat pump systems can also be avoided with the replacement of the water source heat pump systems. Annual average replacement costs of failed HVAC equipment represent savings to the customer after installation of new units.

Construction Savings *(savings that occur before the Contract Time for Verified Savings)*
A significant maintenance cost reduction source is related to the lighting retrofits. Ballast and lamp replacement will be reduced due to the fact that the equipment installed as part of this project will have a longer life than what is currently in place. For instance, the typical burn hours for an incandescent lamp are 750 to 2000 hours. The typical burn hours for a compact fluorescent lamp are 10,000 hours. In addition, the new lamps will have typically 2 year warranty and the ballasts will have a 5 year warranty. We will determine the maintenance savings dollars based on the actual lamp and ballast costs during the final audit. Maintenance savings will only be taken for material; no maintenance labor savings will be included.

Construction period savings begin to occur the moment a new more efficient piece of equipment is installed in place of an older inefficient piece of equipment. Construction period savings can accurately be measured and verified so that these savings can be captured and applied to the project.

Preliminary Evaluation

In order to accurately report savings from the installed ECMs, it is vital that accurate and complete baselines and utility rates be developed and analyzed. Accordingly, we will evaluate water and energy consumption data provided by the City. The savings potential at the specified facility will be established based on a number of energy and water conserving retrofit scenarios and their associated costs.

Data Sources
Accurate information on fuel consumption, building occupancy, equipment down time, and/or renovation schedules will be used to provide a fair and accurate assessment of the savings at the site. Information will be obtained on a number of variables including, but not limited to, utility rates, local weather profile, facility square footage changes, environmental conditions, schedules *(e.g. lighting, HVAC, occupancy)*, and an inventory of equipment in the facility.

We will obtain weather data from the National Weather Service, NOAA, or Accuweather from the nearest weather station to the City for the purpose of establishing the TEA baselines. Year-to-year utility usage trends and overall average use date-adjusted values will be compared. (Values are adjusted from the actual billing dates to reflect the electric and natural gas usage within each calendar month. This procedure eliminates the variation associated with meter reading dates, and prepares the data for use in calibrating energy use computer simulation programs.)

Utility Rates
Rate structures and actual utility bills will be analyzed to determine the current rates being charged to the City for each fuel type and facility being affected. The resulting cost per unit will be used for savings calculations. This analysis will be presented in the TEA report.

Utility Bill Analysis
Electric, gas and water data will be collected and analyzed for the City. These data will establish an existing usage pattern and in the calculation of predicted savings from the various ECMs.

Master Meters
For those buildings that are mastered metered, the TEA baseline energy consumption is found by analyzing up to 36 months of data for each meter. The data are entered onto a spreadsheet and normalized to calendar months. The date-adjusted data are then used to calibrate the building models developed to estimate savings and to create weather-adjusted equations for savings verification. For electric and gas data, a weather regression analysis is performed by charting the available usage versus the monthly degree-days *(as defined below)*. A linear equation is applied separately to the winter and summer data, and the correlation of the data *(the R^2 value)* analyzed. Data, which lay far outside of the norm, may be removed until achieving a correlation of 0.8 or greater, or the best possible correlation allowed with the available data.

For those buildings that contain electric and gas master meters, savings will be calculated by subtracting the post implementation billed usage from the baseline usage that is derived from the regression equation developed for that site and fuel type. The specific equations for calculating the unit savings are as follows:

Unit Savings = Baseline Usage – Billed Usage

Billed Usage = Total Units (kWh or ccf) from the current post implementation utility bill, for all meters of that type for that facility.

Baseline Usage = M x DD + B; where
M = slope of the equation,
DD = the degree days in the billing period (cooling or heating, depending on the equation used),
B = they intercept of the equation.

cooling degree days in the billing period. The equation will be decided by the follow rules: The regression equation to be used depends on the fuel type and the number of heating degree days and

For Electric Accounts:
If CDD => HDD then use Summer/CDD equation.
If HDD > CDD then use Winter/HDD equation.

For Natural Gas Accounts:
If HDD = 0 then use Summer/CDD equation.
If HDD <> 0 then use Winter/HDD equation.

The dollars saved will be calculated by multiplying the units saved by the applicable unit rate.

*Dollars Saved = Unit Savings * Contractual Utility Rate*

Some sites may not have any correlation to weather. For these sites, non-weather adjusted baseline usage will be determined and used for savings verification. The equations used for the calculation of savings are as follows:

Unit Savings = Baseline Usage – Billed Usage
Billed Usage = Total Units (kWh or ccf) from the current post implementation utility bill, for all meters of that type for that facility.
Baseline Usage = Total Units derived from pre-implementation utility bills, representing the usage profile of the facility, usually an average over multi-year consumption

Adjustments to Baseline

The baseline(s) established during the TEA may need to be modified from time to time to account for major equipment and operational changes made at a facility; such as opening a new wing of a building, utilizing buildings after hours or for longer operational periods, replacing a major piece of electrical equipment, or installing personal computers.

Other typical changes may include, but are not limited to:

- Occupancy schedule changes
- HVAC schedule changes
- Additional miscellaneous equipment
- New HVAC *(cooling)* equipment
- Remodeled buildings.

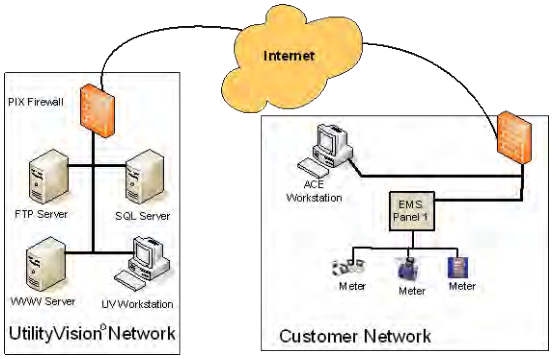
We will obtain data associated with changes at the facility. We will furnish questionnaires to assist the City's designated personnel in providing needed information. The questionnaire will be patterned after what we have found to be effective in current guaranteed savings programs. It will, however, be customized to accommodate the current site record keeping methods.

As the City informs us of any changes to a facility that may affect energy use, we will quantify the effects on the overall energy use of the facility. The additional calculated monthly usage will be presented to the City for review and approval, and then added to the baseline(s) for use in the savings calculations.

Any adjustment (baseline or usage) will have to be agreed to by both Chevron ES and the City before it is final. We can not just make an adjustment and consider it final without acceptance from the City.

We do not weather-adjust its savings calculations. While some ESCOs may incorporate weather adjustments to their energy baselines, we do not require this application.

Utility Monitoring

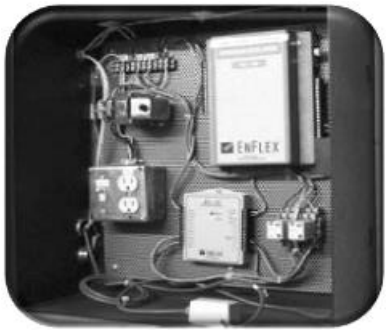


UtilityVision® is an enhanced automation and utility monitoring system available from Chevron ES. As an energy management data analysis tool, the web-based energy consumption tracking system collects and reports energy consumption data to customers over the Internet. Chevron ES developed UtilityVision® for use in building complexes such as commercial developments, educational institutions, manufacturing facilities, housing developments, and municipalities.

UtilityVision® allows customers to become more self-sufficient in analyzing energy consumption for energy management purposes. It also prepares customers with a necessary data analysis tool for future price negotiations with suppliers in the deregulated electricity industry.

The system will integrate with your existing Ethernet LAN *or use a dedicated cellular link*. It consists of a Transmission Control Protocol/Internet Protocol (TCP/IP) network host that receives consumption information from customer meters and presents data as tables or charts from the UtilityVision® website. The City may view and print reports of historical, as well as real-time energy consumption data.

UtilityVision® was developed to give customers a pricing advantage in negotiating rates in a deregulated market for electricity. Although the ability to collect detailed electricity usage data represents the primary benefit for customers, the system can also monitor other types of energy consumption such as hot or chilled water, natural gas, or steam.



The UtilityVision® system is a turnkey installation that involves mounting the metering platform and meters, installing cabling and connections, and configuring the interface. The system's modular structure makes it easy to install, reconfigure and expand in response to additional customer requirements.

Three components of Chevron ES' UtilityVision® service are currently available to help customers begin the data collection process.

1. **Load Profiling** – Web-based reports profile electric consumption and demand data by day, week and year for individual meters. UtilityVision® accumulates data in 15-minute intervals for each meter and reports energy information for up to 13 months and graphs up to a year's worth of information. UtilityVision® also monitors other electric properties such as power factor, amps and voltage, as requested.

2. **Meter Aggregation Analysis** – The aggregation of consumer data from various meters into a single analysis report provides a cumulative profile of electric consumption and demand data by day or day of week for a month. A cumulative report accurately represents the overall peak impact of all meters for the requested reporting units.

3. **Sub-metering (optional)** – Installation of sub-meters on buildings or individual units whose consumption is also registered by another meter along with other buildings or units. Sub-metering allows customers to accumulate data for energy analysis, cost allocation, or troubleshooting by reporting unit. For example, customers could sub-meter based on such factors as buildings, floors, manufacturing processes, or housing units, and obtain usage data by day of week and/or by year.

Benefits of a Measurement and Verification Plan	
Benefit	**Benefit Explanation**
Maximize the Energy Savings	Through careful investigation of building scheduling parameters, HVAC equipment performance, and occupancy patterns, Chevron ES' Monitoring Department is able to deliver the maximum amount of energy savings achievable using the equipment installed under the program.
Sustain the Energy Savings	Without measurement and verification, energy savings tend to erode over time. This can be due to several factors, including changes in HVAC control parameters, equipment replacement or maintenance strategies, changes in space use, and physical changes to the building structure. While some of these items are unavoidable increases in usage due to facility changes, it is vital to quantify the effects of those changes to see if the installed measures are still functioning correctly.
Defend the Performance Contracting Decision	Oftentimes the decision to enter into an ESPC is a difficult one involving champions and detractors within a customer's organization. Signing an ESPC can require a "leap of faith" that the energy service company will honor the guarantee should a shortfall in savings result. Chevron ES' Monitoring Department will work hard to ensure that all entities within the customer's organization understand the results of the measurement and verification activities. This is accomplished through periodic reporting, annual site visits, and board presentations when desired by the customer. Finally, should the energy savings fall short of the guaranteed level Chevron ES will make up the shortfall.
Identify Additional Opportunities	During the time crunch of getting the initial ECMs installed, there are often measures that are not fully evaluated. Also, other potential measures may come to light only after the completion of the initial installation. In these cases, Chevron ES' Monitoring Department will continue to investigate further opportunities for energy savings, from changes in the operation and maintenance of the facilities to further projects that will increase comfort and reduce energy consumption.
Ongoing Training and a Consistent Knowledge Base	Over the years, if facility personnel change, Chevron ES will be there to train customer's employees on issues specific to the facilities. With a staff of professionals who know not only systems and control in general, but the details of the facilities, Chevron ES has the ability to bring new staff up to speed quickly and be there through the learning process.
Forecast Changes in Energy Consumption and Making Energy Smart Choices	As facilities equipment and usage change, so does the energy usage. The Chevron ES Monitoring Department will be in a position to quantify that change, enabling the Client to more accurately budget for the required energy. In addition, Chevron ES is available to help our clients make informed decisions about the proposed changes at their facilities, giving them the necessary tools to fully evaluate the long-term energy impact of different buying choices.

Benefits of a Measurement and Verification Plan	
Benefit	**Benefit Explanation**
Identify Utility Billing Errors	As part of many performance contracts, the client's utility bills are collected on an on-going basis for the purpose of determining savings. During the process of examining and entering the data, and comparing the usage to expected usage, utility-billing errors have been detected. Over the years, Chevron ES monitoring personnel have detected and help to facilitate the return of tens of thousands of dollars in over bills.

Marketing Communications Support

Communications Outreach

In addition to the technical and project development expertise that Chevron ES brings to each and every project, our customers also given access to our communications resources. The Marketing Communications Team is composed of eight members with complementary skill sets that help us market its services and develop communication strategies on behalf of our clients.

In the past, the Marketing Communications Team has assisted customers in developing a wide variety of communication tools including case studies, brochures, web pages, presentations, multimedia and informational displays and speeches. The team has also assisted with groundbreakings, dedication events, check presentations, media interviews, press releases, press conferences and project tours. On a limited basis, we have used public relations and community relations firms to help support projects.

It is important to communicate the benefits of successful energy efficiency and renewable power projects on behalf of our customers. These communications help communities and other stakeholders understand the work that is being done at the customer's facility and how it will affect them. The Chevron ES Project Team supports the City by publicizing the positive benefits of comprehensive energy efficiency and renewable power projects, which helps to generate goodwill from stakeholders.

Project Benefits

Realizing Possibilities with Our Partners

Reduced Environmental Impacts

Our projects expand the use of energy efficiency, conservation and renewable power technologies, which extends energy supplies and reduces greenhouse gas emissions.

Taxpayer Savings

Our projects provide schools, cities, states and other public institutions with annual energy savings and operational savings. They also provide energy budget stability and predictability through known energy costs. As a result, many projects can be funded without up-front capital, so institutions can demonstrate fiscal responsibility and redirect their resources to other important priorities. The Colorado State Capitol Complex project is expected to reduce the state's energy costs by more than 30 percent and save taxpayers more than $1 million annually.

Improved Public Facilities

Energy-efficient buildings are frequently easier and less expensive to maintain, and offer comfortable and productive indoor environments.

Support for Sustainability Goals

Energy efficiency and renewable generation projects help customers meet environmental goals. They also serve as positive examples of environmental stewardship, and promote market-driven growth of clean energy sources. Our project with the City of Brea, California, helped the city move closer to its goals of investing in sustainable programs that produce long-term benefits for the community. Our project with Broward County Water and Wastewater was designed to significantly impact their Go Green sustainability goals and in fact our cogeneration system encasement will feature their "Go Green" logo.

Improved Energy Security

The energy technologies we install can ensure reliable, secure energy around the clock. They also help diversify energy sources to reduce supply risks. And because our projects can offer price certainty and energy cost predictability, they help clients plan for their energy needs well into the future. Alameda County's Santa Rita Jail smart grid demonstration project in Dublin, California, is an excellent example of this type of work.

Local Economic Growth

Chevron ES strives to engage local construction professionals, creating jobs and helping to expand local economies.

7. References

References should be of projects with similar scope as listed in this RFQ. Information should include:

- *Client Name, address, contact person telephone and FAX numbers and E-mail addresses.*
- *Description of work.*
- *Year the project was completed.*
- *Total cost of the construction, estimated and actual.*

Chevron ES has implemented over 560 capital projects with a combined construction value of $2.4 billion. In addition to our energy savings performance contracts, we have also built a 126 MW portfolio of renewable energy systems that primarily consists of behind-the-fence distributed generation projects including CHP (Combined Heat & Power) facilities fueled with biogas, hydrogen type fuel cells, and solar PV based power generation plants.

Chevron ES partners with government leaders to broadly assess their infrastructure and then design and deploy unique solutions that address critical needs with little to no upfront capital. Our renewable and energy efficiency programs generate savings and create new revenue streams that can be directed to funding key services that improve quality of life. Furthermore, our programs typically rely on local labor, helping to scale local businesses and to drive economic development. Through innovative community engagement programs, we extend energy savings beyond our customer's facilities to help residents and small businesses reduce energy usage and save money. Having worked with over 40 municipalities, we are dedicated to helping local and state leaders streamline operations, fuel economic activity, and strengthen the fabric of their communities.

- At **Broward County's Water and Wastewater Division** we are implementing an innovative Waste to Green Renewable project that will provide over 1.6 megawatts of power from a waste source of methane gas and restaurant grease traps. We are implementing the installation of a new fats, oil and grease (FOG) receiving station and a new biogas cogeneration system that will produce over $1M in savings for the county, as well as reducing emissions. Instead of excess methane being flared and old restaurant grease in the waste stream – both will be utilized to generate electricity for the plant. In addition, we are implementing a nature green path incorporating information regarding the project as well as to showcase drought tolerant plantings and the benefits of reuse water that will serve as an education and outreach for the community. The project will substantially help the county meet their sustainability goal of reducing their carbon emissions back to 1997 levels by 2015.

- **The City of Lawton** is utilizing an AMR project that has significantly helped improve revenue and reduce operational costs. We implemented a $13M comprehensive performance contract that included retrofitting over 29,000 water meters. Results of the City of Lawton meter accuracy in Year One, was **99.5%** and increased water revenue was measured at $841,319. Lawton year 2 meter accuracy was **99.6%** with increased water revenue measured at $793,528. That is a significant revenue increase for the City. In addition we have helped implement education programs to ensure water customers are informed and understand the benefits the program has for them – which are critical components for any AMR program.

- **The City of Livermore**'s innovative renewable and efficient energy program is expected to generate more than $10 million in energy savings without any capital spending by the city. This arrangement with Chevron ES supported local economic development by creating 35 jobs and helped to scale a local lighting technology company, Bridgelux. The integrated program also includes an internship program for high school students to provide early training in the field of energy engineering.

- **The City of Brea** took a bold step forward, becoming the largest municipal producer of solar power in Orange County, California. As part of a pioneering sustainability initiative, the renewable and efficient energy program with Chevron ES will generate a projected $13 million in net savings over the life of the project.

- **The City of Austin** continues to demonstrate its leadership in resource conservation and environmental protection through self-funding projects that are lowering costs for the city while conserving resources. The city achieved national recognition for their efforts by being awarded with the U.S. Environmental Protection Agency's 2012 Green Power Leadership Award. We are proud that we could help the City achieve their sustainability goals.

- **The Colorado State Capitol Complex** partnered with Chevron ES to design and implement an integrated energy program that showcases the historic building's architectural features with efficient lighting technology. The program reduces energy costs by nearly 30 percent, achieving more than $8 million in savings to date. The Colorado Capitol is the first LEED-certified state capitol in the country and the first facility to receive the LEED for Existing Buildings (LEED-EB) certification.

- The smart grid project at **Alameda County's Santa Rita Jail** is the culmination of several renewable energy projects implemented at the jail, including solar photovoltaic panels, a 1 MW fuel cell cogeneration plant, and wind turbines, along with a 2 MW advanced energy storage system. The project will allow the jail to ensure it has a supply of reliable electricity for its daily operations and security. The Alameda County Jail is one of the most sustainable correctional facilities in the country.

Shown below are projects similar to the City's project:

Chevron ES Projects				
Client Name	**Contact Person**	**Description of Work**	**Year Project Was Completed**	**Total Cost of Construction, estimated and actual**
City of Lawton, TX	Rick Endicott Finance Director 103 SW 4th Street Lawton, OK 73501 Tel: 580 581 3328 Fax: 580 581 3421 Email: rendicott@cityof.lawton.ok.us	There have been 2 phases with this customer. This project provided the City with LED traffic signals, wastewater treatment (18 MGD) plant SRT control and aeration, EMS, lighting retrofit, new/replacement of boilers and chillers, air-cooled condensers with a significant facet of this project was the change-out of old water meters to new meters enabled with automated meter reading capabilities.		$14,683,774 (Phases 1 & 2)
City of Austin, TX	Dennis Lilley Sr Conservation Program Specialist Austin Energy 721 Barton Springs Road Austin, TX 78704 Tel: 512 482 5319 Fax: 512 482 5455 Email: dennis.lilley@austinenergy.com	The Parks and Recreation Department currently has approximately 80 fields that are being irrigated with city water. The cost of city water is $3.25 per thousand gallons, which results in a significant watering bill to maintain these fields. At several locations there is the opportunity to use reclaimed water or raw river water to meet the irrigation needs and thus reduce irrigation costs.		$2,704,000
Shawnee County, KS	Terry Bertels Parks Director 3137 SE 29th Street Topeka, KS 66605 Tel: 785 267 1156 Fax : 785 266 0308 Email : terry.bertels@snco.us	Needed replacements were made to the lighting, electrical, water, power and HVAC systems at the County Courthouse, Corrections Facility and North Annex. This project solves deferred maintenance issues, like 47 year old HVAC equipment, that the County would have to replace on its own, but utilizes energy and water savings to fund the improvements. The improvements make the County facilities much more comfortable, safer and easier to operate.		$7,563,370
Dade County, GA	Ted Rumley County Executive Director	Needed facility improvements were to replace all primary	2012	$737,380

	52 Tradition Lane Trenton, GA 30752 Tel: 706 657 4625 Fax: 706 657 5116 Email: TRumley@dadecounty.ga.gov	systems at the Jail facility and upgrade/expand EMS. Lighting and water throughout the facilities supplemented the energy savings.		
Miami-Dade County, FL	Ray Abrahante Engineer 3 200 NW 1st Street Miami, FL 33128 Phone: 305 375 5242 Fax: 305 375 3914 Email: RABRA@miamidade.gov	Chevron ES worked with the County on several phases implementing HVAC, controls, water, lighting, design smoke management system and repaired original smoke evacuation chases.		Over $20MM
School Board of Broward County, FL	Robert Jindracek Project Manager 600 SE Third Avenue Fort Lauderdale, FL 33301 Phone: 754 321 4756 Fax: 754 321 4765 Email: Robert.jindracek@browardschools.com	Chevron ES has worked with the School Board throughout the years and different phases. With this last partnership we implemented in phases: lighting, water, HVAC, controls, variable flow CHW loop.		Phase 1 - $1,900,000 Phase 2 - $2,000,000 Phase 3 - $1,300,000 *(designed)*

8. Minority/Women (M/WBE) Participation

If your firm is a certified minority business enterprise as defined by the Florida Small and Minority Business Assistance Act of 1985, include your certification.
If your firm is not a certified M/WBE, describe your company's previous efforts, as well as planned efforts for this project in meeting M/WBE procurement goals under Florida Statutes 287.09451

We have teamed with the Minority Builder's Coalition located in the City of Fort Lauderdale. They will bring a host of local small business enterprises to help with the implementation project as well as our Capacity Project of bringing sustainability efforts to the community. We look forward to working hand in hand with not only the implementation of the projects but also helping with training and assistance of energy efficiency and emerging renewable technology.

We have a robust supplier diversity program. In 2012, we spent $823.8 million with women- and minority-owned businesses in the United States. We spent more than $2.5 billion on goods and services from US-based small businesses

For the 3rd year,

Chevron received the Diversity Leader Award from *Profiles in Diversity Journal*, most recently in 2012

Our Supplier Diversity/Small Business Program consists of:

- **Utilization** - We integrate strategies to include competitive sourcing opportunities.
- **Training and education** - We offer training and support for small, minority and women-owned businesses on how to do business with Chevron.
- **Tracking** - We monitor and report our progress towards achieving our program targets with emphasis on continuous improvement.
- **Certification** - We verify that businesses meet the criteria of ownership to qualify as a minority, woman-owned, small disadvantaged or HUB Zone certified firm. Certification workshops, training and partnerships with recognized certifying organizations help facilitate the process.
- **Outreach** - We seek out diverse suppliers through active involvement with small business and minority development organizations and participation in various trade shows.

With operations all over the world, Chevron values the rich diversity of ideas, experience and skills our employees bring to the company. Chevron wants to be recognized as a leader in global diversity and as a company that values and leverages diversity for business needs. The richness of our cultural and creative diversity increases our ability to achieve our vision and enhances Chevron's work environment. Chevron operates in approximately 180 countries with all their different cultures and people. We recognize that in our global environment, having a workforce that mirrors the composition of the marketplace where we operate and serve is a key competitive advantage.

We're committed to reflecting in our workforce the rich diversity of cultures and racial and ethnic backgrounds in the communities where we operate. We're also devoted to encouraging a diversity of ideas. By respecting the unique talents, experiences and perspectives of our workforce, we gain a flexibility and ingenuity that help us excel.

We partner with local governments, our business partners and our stakeholders to enhance communities by generating jobs, supporting local supply chains and strengthening local economies.

Chevron ES values the opportunity to work with local equipment and service providers. Our supplier diversity and small business programs add value to our core business and help our partners grow.

M/WBE Participation

The use of small and minority- and women-owned businesses is consistent with The Chevron Way of doing business. This philosophy complements the inclusive business culture at Chevron ES.

Chevron Corporation's Supplier Diversity/Small Business program helps ensure all potential business partners are considered on the basis of merit, regardless of size and strength. The program seeks to provide a competitive advantage for Chevron ES by introducing value-added small, minority- and women-owned businesses to the supply chain. Small, diverse businesses can often add value by performing services with attractive cost savings and excellent service.

The Supplier Diversity/Small Business Program evaluates vendors for a variety of services. For example, when Chevron evaluated printing suppliers more than 100 companies were considered. Of the final seven chosen, two were small minority-owned companies.

Through the Supplier Diversity/Small Business Program, Chevron ES strives to ensure our supplier base is reflective of our customers and the markets we serve. Chevron ES' procurement processes for small and minority businesses are consistent with a wider commitment to diversity that characterizes the company's employee policies and practices. We believe that employee diversity – embracing myriad ethnicities, ideas, talents and experiences – adds value to customers, shareholders, industry peers and communities.

Local, Small and Minority Subcontractor Selection

Chevron in concert with the Minority Building Coalition will have a vast network of qualified small business enterprises. Together we will develop a pre-qualification list of the top businesses. We utilize an extensive pre-qualification process to select subcontractors and suppliers for our projects. Our pre-qualification process is based on our in-depth experience identifying subcontractor qualities that assure optimal contract completion and quality performance, service and products.

To implement projects, we prefer to use local subcontractors with outstanding track records. Working this way, everybody generally wins. Customers win because their facilities receive capital improvements paid for by guaranteed energy and operational savings. Local economies win because Chevron ES consistently uses local contractors for renovations and construction. The environment benefits because the equipment we install has lower emissions. Chevron ES wins because we gain additional business.

Chevron ES in conjunction with the Minority Business Council, will within this project use best efforts to utilize local contractors and small, minority-owned and women business enterprises (M/WBEs). Our proposal may include any or all of the following procurement initiatives:

- Identify and include identified and available M/WBEs in all solicitations for supplies, equipment, other commodities and construction
- Where we believe that the number of available M/WBEs provides competition, limit solicitations to M/WBEs
- Where applicable and in our view commercially necessary, provide certain contractual monetary incentives to encourage engagement of M/WBE subcontractors and suppliers
- Coordinate with other public agencies or private firms to implement the procurement initiatives set forth in this narrative
- Require non-M/WBE subcontractors to follow the same defined guidelines as Chevron ES in an effort to include M/WBEs in any commodities they purchase to perform their work or other labor they may subcontract

Further actions by Chevron ES to foster M/WBE participation are as follows:

- If an M/WBE contractor should default or fail to perform and must be removed from the project, we will provide written notice to other certified M/WBEs that perform that type of work in the geographic area of the project. We will advise them of the work desired to subcontracted and solicit their interest and response.
- If Chevron ES cannot within a commercially reasonable time find an acceptable M/WBE subcontractor for the type of work the defaulting subcontractor was performing, Chevron ES will attempt to identify other economically feasible portions of the work that can be performed by M/WBEs. If available and in our view acceptable, Chevron ES will then solicit responses from certified M/WBEs that perform that type of work in the geographic area of the project.
- If all commercially reasonable efforts to replace the M/WBE subcontractor with another M/WBE fail, we will provide documentation of these efforts to the customer and request approval to engage other qualified subcontractors.
- If, during the course of the contract, changes in the scope of work necessitate a supplemental agreement, we will attempt to identify portions of the supplemental work that are commercially feasible to subcontract. We will then solicit responses from certified M/WBEs that perform that type of work in the geographic area of the project.

The Chevron ES process for engaging subcontractors intends to assure that local area contractors located within a defined area of the project facilities, including M/WBEs, are given

equal opportunity to bid on individual installations and products within projects based on customer procurement guidelines. After bids are received, they are reviewed for conformance to the specifications, and economic evaluations are made of each bid and any proposed alternate bids. In addition, we assess the bidder's ability to effectively perform the work based on, among other things, skill, experience, location and proximity to the project. After the analysis of the bids is complete, Chevron ES makes a best-buy selection in conjunction with the City.

Opportunities for M/WBE Participation

Chevron ES expects the following typical technologies for energy and water conservation to be part of our proposal. We believe there is opportunity for M/WBE participation in each of these technology categories:

- Building envelope
- Lighting
- HVAC controls
- HVAC cooling
- HVAC air-side
- HVAC water-side
- HVAC heating
- Water and sewer

Chevron ES has consistently met or exceeded agreed upon M/WBE goals on past projects. For example, at the University of Maryland, Baltimore County, we met the university's goal of 14 percent M/WBE participation among subcontractors. At the Patuxent Institution project, also in Maryland, our use of in-state M/WBEs totaled 24 percent of the total subcontract dollars and 14 percent of the total project costs.

Supplier Diversity Recognition

Chevron's reputation and effectiveness as a company strongly depend upon its diversity. Increasingly, our shareholders, customers and suppliers make decisions based on our record in this important area. We attribute our accomplishments to key suppliers, agencies and organizations, as well as our supplier diversity team, which have helped us build and maintain a successful supplier diversity program. Some of the organizations that have recognized our program include:

Houston Minority Supplier Development Council

- Advocate of the Year

Louisiana Minority Supplier Development Council

- Corporation of the Year

National Minority Supplier Development Council

- Coordinator of the Year Nominee

Northern California Minority Supplier Development Council

- President's Award
- Sourcing Manager of the Year
- Corporate Coordinator of the Year
- Advocate of the Year

Women's Business Enterprise Alliance (Texas)

- Corporation of the Year
- Distinguished Corporation of the Year
- Corporate Advocate of the Year

Women's Business Enterprise National Council

- Top Corporations for Women Businesses

Updated: December 2012

We’re proud of the work we do, and we’re always striving to be better. By being vigilant in maintaining a strong, healthy workforce; operating safely and responsibly; partnering to create value for our stakeholders; and providing energy the right way — The Chevron Way — we help meet the world’s energy needs and continue to foster economic development around the world.

9. Sample Insurance Certificate

Demonstrate your firm's ability to comply with insurance requirements. Provide a previous certificate or other evidence listing the Insurance Companies names for both Professional Liability and General Liability and the dollar amounts of the coverage.

Like many large, publicly traded companies, Chevron is self-insured through its Self-Administered Claims Program ("SACP"). Under the SACP, the customer is issued a SACP letter (attached) in which Chevron self-assumes the insurance requirements of the customer contract.

Chevron and its subsidiaries are covered for property and liability exposures through major worldwide insurance programs with very large deductibles. Losses that fall within these deductible levels, including those for which a Chevron company is contractually liable, are paid through the financial resources of the Company and are administered by Chevron under its Self-Administered Claims Program.

Chevron ES shall maintain, or cause to be maintained, for the duration of this Contract, the insurance coverage outlined in (i) through (vii) below, and all such other insurance as required by applicable law. Evidence of coverage will be provided to Customer via a Certificate of Insurance or a Self-Administered Claims Letter.

(i) Workers' Compensation/Employers Liability for states in which Chevron ES is not a qualified self-insured. Limits as follows:

* Workers' Compensation: Statutory
* Employers Liability: Bodily Injury by accident $1,000,000 each accident
  Bodily Injury by disease $1,000,000 each employee
  Bodily Injury by disease $1,000,000 policy limit

(ii) Commercial General Liability insurance with limits of :
* $1,000,000 each occurrence for Bodily Injury and Property Damage
* $2,000,000 General Aggregate - other than Products/Completed Operations
* $1,000,000 Products/Completed Operations Aggregate
* $1,000,000 Personal & Advertising Injury
* $ 100,000 Damage to premises rented to Chevron ES

Coverage to be written on a claims-made form. Coverage to be at least as broad as ISO form CG 002 (12/07), without endorsements that limit the policy terms with respect to: (1) the definition of an Insured Contract, (2) provisions for severability of interest, (3) explosion, collapse, underground hazard.

(iii) Auto Liability insurance for owned, hired and non-owned vehicles with limits of $1,000,000 per accident. Coverage to be written on an occurrence form.

(iv) Professional Liability insurance with limits of:
* $1,000,000 per occurrence
* $1,000,000 aggregate

Coverage to be written on a claims-made form.

(v) Excess Liability insurance. Limits as follows:
* $1,000,000 each occurrence
* $1,000,000 aggregate

Coverage terms and limits to apply excess of the per occurrence and/or aggregate limits provided for Commercial General Liability and Professional Liability written on a claims made form. Coverage terms and limits also to apply in excess of those required for Employers Liability and Auto Liability written on an occurrence form.

(vi) Policy Endorsements.
* The insurance provided for Workers Compensation and Employers Liability above shall contain waivers of subrogation rights against Customer.
* The insurance provided for Commercial General Liability and Auto Liability above shall:
  (a) include the Customer as an additional insured with respect to Work performed under this Contract but only to the extent of the indemnity obligations contained in this Agreement, and
  (b) provide that the insurance is primary coverage with respect to all insureds and shall not be considered contributory insurance with any insurance policies of the Customer.

(vii) In lieu of any insurances required in this Section, Chevron ES may self-insure hereunder and use a Self-Administered Claims Program for this purpose. Chevron ES will notify Customer in writing 30 days prior to cancellation of the Self-Administered Claims Program.

A sample SACP letter is included below.

Robert C. Gordan
Assistant Treasurer
Insurance Division

Treasury Department
Chevron Corporation
6001 Bollinger Canyon Rd., A2104
San Ramon, CA 94583
Tel 925 842 8063
Fax 925 842 6007
RGordan@chevron.com

SAMPLE

Date

Addressee

Re: Insert Project Name and Reference Here

Dear _____:

Chevron Corporation and its subsidiaries are covered for property and liability exposures through major worldwide insurance programs with large deductibles. Losses that fall within these deductible levels, including those for which a Chevron company is contractually liable, are paid through the financial resources of the Company and are administered by Chevron Corporation under its Self-Administered Claims Program, hereinafter referred to as the Program.

This is to advise you that the property/liability insurance requirements of the subject agreement fall within the deductible levels of Chevron's insurance programs. Therefore, losses for which Chevron is responsible under the agreement will be handled under the above-described Program. The scope of this Program is equal to the insurance requirements of the subject agreement.

We further advise you that Workers' Compensation insurance requirements for Chevron companies are satisfied through insured/self-insured programs depending upon the location of the employee's workplace. U. S. Longshore and Harbor Workers' Act coverage is self-insured.

Unless canceled earlier, this letter will remain in effect until the expiration or earlier termination of the subject agreement (or any renewal thereof). If this program is canceled or materially changed, we will provide you with 30 days' written notice.

Sincerely,

Robert C. Gordan

Bondability

Chevron ES maintains an ongoing surety bonding relationship with Fidelity and Deposit Company of Maryland, a member of the Zurich Financial Services Group of underwriting companies, with an AM Best Rating of XV and with Federal Insurance Company, a member of Chubb Insurance Company, which has an AM Best Rating of XV. Both Sureties are on the U.S. Treasury's Department Circular 570, listed as approved sureties and are admitted carriers in all 50 states. We have established surety bonding capacity limits of $50,000,000 for single projects with an aggregate capacity in excess of $300,000,000. These sureties also have additional capacity to provide Chevron ES if needed.

Creditworthiness

If, at any time, the City's credit rating falls below investment grade as defined by Moody's Investors Services (*or other nationally-recognized independent rating agency)*, the City agrees to provide us with current information regarding its creditworthiness upon the request of Chevron ES. At its sole option, we may then require the City to provide security satisfactory to Chevron ES, and the Work may be withheld until such security is received. If the City deposits the contract amount into a third-party escrow account with an escrow agent and agreement acceptable to Chevron ES, then the terms of this paragraph are not applicable.

10. Joint Ventures

Any firm(s) involved in a joint venture in its Proposal will be evaluated individually, as each firm of the joint venture would have to stand on its own merits.

There are no joint ventures for this Proposal.

11. Subconsultants

Consultant must clearly reflect in its Proposal any Subconsultants proposed to be utilized along with a summary of their background and qualifications. SEE SECTION II ITEM 1.9. The City retains the right to accept or reject any Subconsultants proposed.

Job creation metrics are a key indicator of economic development, and Chevron ES is committed to using local labor as part of our modernization programs. For example, at our Broward County Board of County Commissioner's Waste to Green Energy project – we are projecting over 300 new direct and indirect jobs. Furthermore, Chevron ES has provided training to subcontractors on how to install new technologies, building the capacity of local firms to meet new customer demands.

Because Chevron ES guarantees the savings resulting from ECM installations, using superior equipment and following a high-quality installation standard are imperative. We have developed a list of quality local subcontractors and equipment vendors.

When selecting a subcontractor or equipment vendor, we will focus on what we believe is the best value for the City of Fort Lauderdale's project. Our knowledge regarding installation costs – gained through the hundreds of projects completed enables us to negotiate greater value for equipment and subcontract costs. Using the considerable buying power that Chevron ES has amassed, equipment can be generally directly purchased, saving City of Fort Lauderdale from paying subcontractor markups. If the City wants to work with a particular subcontractor or equipment manufacturer, we will make best efforts to accommodate such preferences.

The use of small and minority- and women-owned businesses (M/WBEs) is consistent with The Chevron Way of doing business. We have provided information on our participation of M/WBEs in Section 8, Minority/Women (M/WBE) Participation, of this Submittal.

Subcontractor Selection

Chevron ES uses an extensive pre-qualification process to select subcontractors and suppliers for our projects. Our pre-qualification process is based on our in-depth experience identifying subcontractor qualities that assure optimal contract completion and quality performance, service and products.

To implement projects, we prefer to use local subcontractors with outstanding track records. Working this way, everybody generally wins. Customers win because their facilities receive capital improvements paid for by guaranteed energy and operational savings. Local economies win because we consistently use local contractors for renovations and construction. The environment

benefits because the equipment we install has lower emissions. Chevron ES wins because we gain additional business.

Once the Chevron ES Project Team has audited the facilities, a list of qualified subcontractors is developed in conjunction with customer staff, if possible. Contractors and suppliers selected in the pre-qualification process competitively bid on the work they are qualified to perform. We may propose noncompetitive selection of subcontractors or suppliers when timing is critical; a particular supplier is desired to match an existing system; a supplier has a proprietary feature that is compelling; or the City requests that a particular subcontractor be used based on a history of successful service and value. In such situations, we first seek the City's approval before awarding a contract. Below is a summary of some of the subcontractors and sub-consultants we used during this preliminary audit to give you an idea of the types of services we typical subcontract.

For the City's project, we propose the following subcontractors. The City will have final approval of the participation of these subcontractors:

Sub-Contractor / Consultants	**Services Provided**
Lighting Dynamics, Inc.	Lighting
Enviro Energy Partners LLC	Lighting
Hazen and Sawyer	Wastewater Engineering
HILL YORK*	Mechanical/Controls
I-Star Energy Solutions	Building Envelope/Construction
Broward County Minority Builders Coalition, Inc.	Building Envelope/Mechanical/ Lighting/Construction

*It is our intention to partner with HILL YORK or another qualified mechanical control provider.

12. Non-Collusion Statement

This form is to be completed, if applicable, and inserted in this section.

The Non-Collusion Statement is provided on the following page.

NON-COLLUSION STATEMENT:

By signing this offer, the vendor/contractor certifies that this offer is made independently and *free* from collusion. Vendor shall disclose below any City of Fort Lauderdale, FL officer or employee, or any relative of any such officer or employee who is an officer or director of, or has a material interest in, the vendor's business, who is in a position to influence this procurement.

Any City of Fort Lauderdale, FL officer or employee who has any input into the writing of specifications or requirements, solicitation of offers, decision to award, evaluation of offers, or any other activity pertinent to this procurement is presumed, for purposes hereof, to be in a position to influence this procurement.

For purposes hereof, a person has a material interest if they directly or indirectly own more than 5 percent of the total assets or capital stock of any business entity, or if they otherwise stand to personally gain if the contract is awarded to this vendor.

In accordance with City of Fort Lauderdale, FL Policy and Standards Manual, 6.10.8.3,

3.3. City employees may not contract with the City through any corporation or business entity in which they or their immediate family members hold a controlling financial interest (e.g. ownership of five (5) percent or more).

3.4. Immediate family members (spouse, parents and children) are also prohibited from contracting with the City subject to the same general rules.

Failure of a vendor to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the City Procurement Code.

NAME	RELATIONSHIPS
N/A	

In the event the vendor does not indicate any names, the City shall interpret this to mean that the vendor has indicated that no such relationships exist.

APPENDIX

Addendum

1 & 2

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ADDENDUM NO. 1

RFQ 946-11316
General Engineering – Energy Performance Contracting - CCNA

ISSUED February 17, 2014

1. This addendum is being issued to make the following change:

ARTICLE 6
TERM OF AGREEMENT; TIME FOR PERFORMANCE

6.1 The initial term of this Agreement shall be in alignment with FS 489.145 for comprehensive performance contract not to exceed 20 years. The contract may provide for repayment to the lender of the installation construction loan through installment payments for a period not to exceed 20 years. The term of a contract expires at the end of each fiscal year and may be automatically renewed annually for up to 20 years, subject to the City of Fort Lauderdale making sufficient annual appropriations based upon continued realized energy, water, and wastewater savings.

All other terms, conditions, and specifications remain unchanged.

Kirk W. Buffington, CPPO, C.P.M. MBA
Deputy Director of Finance

Company Name: Chevron Energy Solutions Company, a division of Chevron U.S.A., Inc.
(please print)

Bidder's Signature: _____
Laura Thompson, East Area General Manager

Date: 2/24/14

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ADDENDUM NO. 2

RFQ 946-11316
General Engineering – Energy Performance Contracting - CCNA

ISSUED February 25, 2014

1. This addendum is being issued to make the following change:

ARTICLE 6
TERM OF AGREEMENT; TIME FOR PERFORMANCE

6.1 The initial term of this Agreement shall be in accordance with Section 489.145, Florida Statutes (2013), to wit: one year from the effective date, renewable until September 30, 2015. Thereafter, any renewal periods of the Agreement end on September 30 of each year and the Agreement may be renewed annually, except that the total number of years shall not exceed twenty. Any renewal of this Agreement is subject to the City making sufficient annual appropriations based upon continued realized energy, water, and wastewater savings.

All other terms, conditions, and specifications remain unchanged.

Kirk W. Buffington, CPPO, C.P.M. MBA
Deputy Director of Finance

Company Name: Chevron Energy Solutions Company, a division of Chevron U.S.A., Inc.

Bidder's Signature: _____
Laura Thompson, P.E., East Area General Manager

Date: 2/25/14

Local Business Preference Certification Statement

ITB NO.
TITLE:

LOCAL BUSINESS PREFERENCE CERTIFICATION STATEMENT

The Business identified below certifies that it qualifies for the local BUSINESS preference classification as indicated herein, and further certifies and agrees that it will re-affirm it's local preference classification annually no later than thirty (30) calendar days prior to the anniversary of the date of a contract awarded pursuant to this ITB. Violation of the foregoing provision may result in contract termination.

(1) _____ Business Name

is a **Class A** Business as defined in City of Fort Lauderdale Ordinance No. C-12-04, Sec.2-199.2. A copy of the City of Fort Lauderdale current year Business Tax Receipt **and** a complete list of full-time employees and their addresses shall be provided within 10 calendar days of a formal request by the City.

(2) Chevron Energy Solutions Company, a division of Chevron U.S.A., Inc.
_____ Business Name

is a **Class B** Business as defined in the City of Fort Lauderdale Ordinance No. C-12-04, Sec.2-199.2. A copy of the Business Tax Receipt **or** a complete list of full-time employees and their addresses shall be provided within 10 calendar days of a formal request by the City.

(3) _____ Business Name

is a **Class C** Business as defined in the City of Fort Lauderdale Ordinance No. C-12-04, Sec.2-199.2. A copy of the Broward County Business Tax Receipt shall be provided within 10 calendar days of a formal request by the City.

(4) _____ Business Name

requests a **Conditional Class A** classification as defined in the City of Fort Lauderdale Ordinance No. C-12-04, Sec.2-199.2. Written certification of intent shall be provided within 10 calendar days of a formal request by the City.

(5) _____ Business Name

requests a **Conditional Class B** classification as defined in the City of Fort Lauderdale Ordinance No. C-12-04, Sec.2-199.2. Written certification of intent shall be provided within 10 calendar days of a formal request by the City.

(6) _____ Business Name

is considered a **Class D** Business as defined in the City of Fort Lauderdale Ordinance No. C-12-04, Sec.2-199.2. and does not qualify for Local Preference consideration.

BIDDER'S COMPANY: Chevron Energy Solutions Company, a division of Chevron U.S.A., Inc.

AUTHORIZED COMPANY PERSON: Laura Thompson, P.E. East Area General Manager (NAME) _____ (SIGNATURE) 2/24/14 (DATE)

CITY OF
FORT LAUDERDALE BUSINESS TAX YEAR 2013-2014

Venice of America

BUSINESS TAX DIVISION
700 NW 19 AVENUE, FORT LAUDERDALE, FLORIDA 33311
(954)828-5195

Business ID: 9051119 Business Name: CHEVRON ENERGY SOLUTIONS CO
Business Address: 800 CORPORATE DR # 706
Tax Category: OFFICE USE ONLY Tax#: 718234 Fee:

CHEVRON ENERGY SOLUTIONS CO
A DIVISION OF CHEVRON USA INC
800 CORPORATE DR # 706
FORT LAUDERDALE, FL 33334

DETACH AND POST THIS RECEIPT IN A CONSPICUOUS PLACE

Business ID:	9051119
Tax Number:	718234
Business Name:	CHEVRON ENERGY SOLUTIONS CO
Business Address:	800 CORPORATE DR # 706
Business Owner:	DAVIS,JAMES

- This Receipt is issued for the period commencing October 1st and ending September 30th of the years shown above.
- If you have moved out of the city, please provide a written statement.
- A transfer of business location within the city limits is subject to zoning approval. Please complete a Business Tax Transfer Application and bring it to our office to obtain the necessary approval.
- A Transfer fee applies of 10% of the annual business tax fee. The fee shall not be less than $3.00, nor greater than $25.00.
- If you have sold your business, please provide us with a copy of the Bill of Sale.

Please be advised that this issuance of a Business Tax Receipt establishes that the business you intend to conduct is a use permitted by the City Zoning Code for the location at which you intend to operate. The issuance of a Business Tax Receipt in no way certifies that the property located at this address is in compliance with other provisions of the City Code of Ordinances.

BROWARD COUNTY LOCAL BUSINESS TAX RECEIPT

115 S. Andrews Ave., Rm. A-100, Ft. Lauderdale, FL 33301-1895 – 954-831-4000

VALID OCTOBER 1, 2013 THROUGH SEPTEMBER 30, 2014

DBA:
Business Name: CHEVRON USA INC

Receipt #: 315-655
Business Type: ENGINEER (ENGINEER)

Owner Name: CHEVRON ENERGY SOLUTIONS CO
Business Location: 800 CORPORATE DR 706
FT LAUDERDALE
Business Phone: 954-229-3600

Business Opened: 07/01/2003
State/County/Cert/Reg: 001839
Exemption Code:

Rooms	Seats	Employees	Machines	Professionals
		10		

	For Vending Business Only					
	Number of Machines:			Vending Type:		
Tax Amount	Transfer Fee	NSF Fee	Penalty	Prior Years	Collection Cost	Total Paid
37.50	0.00	0.00	0.00	0.00	0.00	37.50

THIS RECEIPT MUST BE POSTED CONSPICUOUSLY IN YOUR PLACE OF BUSINESS

THIS BECOMES A TAX RECEIPT

WHEN VALIDATED

This tax is levied for the privilege of doing business within Broward County and is non-regulatory in nature. You must meet all County and/or Municipality planning and zoning requirements. This Business Tax Receipt must be transferred when the business is sold, business name has changed or you have moved the business location. This receipt does not indicate that the business is legal or that it is in compliance with State or local laws and regulations.

Mailing Address:

CHEVRON ENERGY SOLUTIONS CO
12980 FOSTER DR #400
OVERLAND PK, KS 66213

Receipt #WWW-12-00095574
Paid 09/19/2013 37.50

2013 - 2014