



FPL Services™

Going Green without Spending Green

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Proprietary & Confidential Information

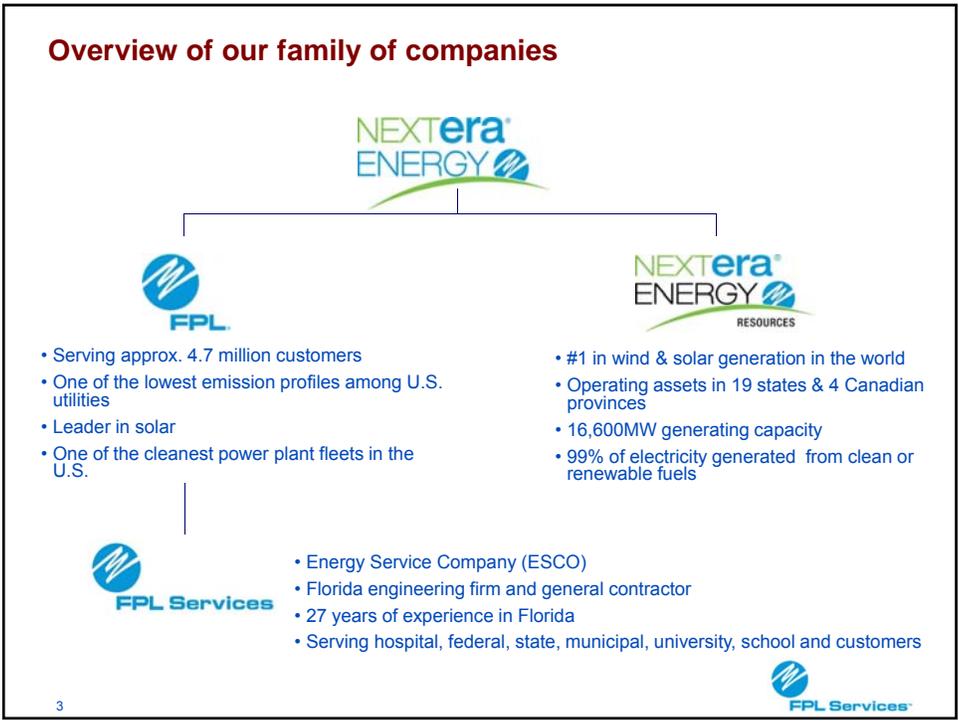
Agenda

- FPLS Overview
- Energy partner benefits
- What is an ESCO
- How does PC work
- Overview of a typical Project Cycle
- Benefits of PC
- Case Study: Miami-Dade Aviation Department
- Marketing Plan

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FPL Services™



We have served customers across many market segments

Aeronautical and Space Customers we serve

- **Federal Government**
 - **NASA**
 - Kennedy Space Center; 11 Phases
 - **U.S. Air Force**
 - Patrick Air Force Base; 11 Phases
 - Cape Canaveral Air Force Station; 9 Phases
 - **U.S. Navy**
 - Atlantic Undersea Test and Evaluation Center – 1 Phase
- **Municipal Government**
 - **Miami-Dade Aviation Department**
 - Miami International Airport; 5 Phases



National Aeronautics and Space Administration

"They were on time; actually they were ahead of schedule, which saves money on utility costs."



U.S. AIR FORCE

"They have proven that they can do it."



MIAMI INTERNATIONAL AIRPORT

"The Sustainability Project at MIA is one of the greatest projects the County has ever undertaken to reduce our greenhouse gas emissions and carbon footprint within South Florida. The cost savings and energy conservation will also provide huge benefits to our airport, its tenants and passengers, and the environment as a whole." - Miami-Dade County Mayor Carlos A. Gimenez



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An energy partner can benefit you in many ways

Economic sustainability

Challenges you may face

- Volatile energy costs
- Limited funding & reduced budgets
- Increasing water costs
- Aging energy systems infrastructure

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How FPLS can help

- Reduces & stabilizes energy and O&M expenses
- No capital required
- Reduces maintenance & repair requirements

Streamlined procurement process results in faster energy savings and less vulnerability to volatile energy prices

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An energy partner can benefit you in many ways

Environmental sustainability

Challenges you may face

- Meeting sustainability requirements
- Emphasis on renewable energy use
- Water scarcity

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How FPLS can help

- Promotes sustainability & energy efficiency
- Solutions via latest energy efficiency technology
- Reduces your water consumption

Good stewards of the environment use resources efficiently and reduce carbon footprint

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An energy partner can benefit you in many ways

Social sustainability

Challenges you may face

- Promote social stewardship
- Public relations



How FPLS can help

- Lead by example
- Marketing of improved quality of life and equity for communities
- Job Creation

Promotes community spirit, uses resources efficiently, and reduces carbon footprint

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Energy Performance Contracting

What is an Energy Services Company (ESCO)?

- **FL Statute 489.145 enables government to implement performance contracting (PC)**
 - It is the policy of this state to encourage each agency to invest in energy, water, and wastewater efficiency and conservation measures
- **An ESCO is licensed under chapter 471, chapter 481 or §489.145 to implement PC**



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How performance contracting works: Role of the ESCO

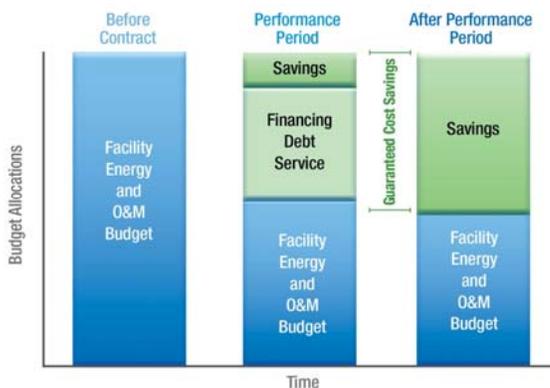
- The ESCO designs innovative and customized solutions to meet the Agency's unique needs
- Our role includes:
 - Developing, installing and arranging financing for projects that will improve energy efficiency of facilities with no out of pocket capital expense
 - Serving as a business partner for the life of the project
 - Acting as the general contractor
 - Assuming associated technical and performance risks



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How performance contracting works

The savings pay for the cost of the project



LEGISLATIVE FINDINGS:

“The Legislature finds that investment in energy, water, and wastewater efficiency and conservation measures in agency facilities can reduce the amount of energy and water consumed and wastewater produced and produce immediate and long-term savings.”

- Florida Statutes 489.145, enacted 2008 (www.flsenate.com)



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Energy Conservation Opportunities Evaluated

Energy Conservation Measures

- HVAC
- Lighting Retrofits
- Controls
- Building Envelope
- Water/Wastewater Reduction
- Natural Gas Supply
- Back-up Power Systems
- Power Quality
- Financing



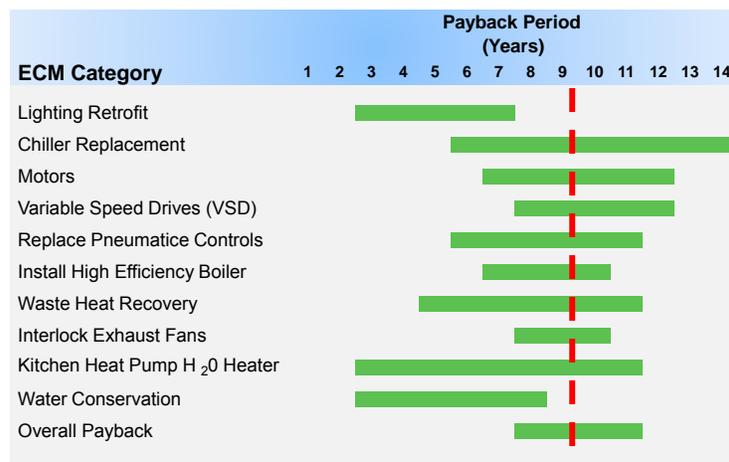
Our team is well-versed in delivering the best technical and financial outcomes for every customer project



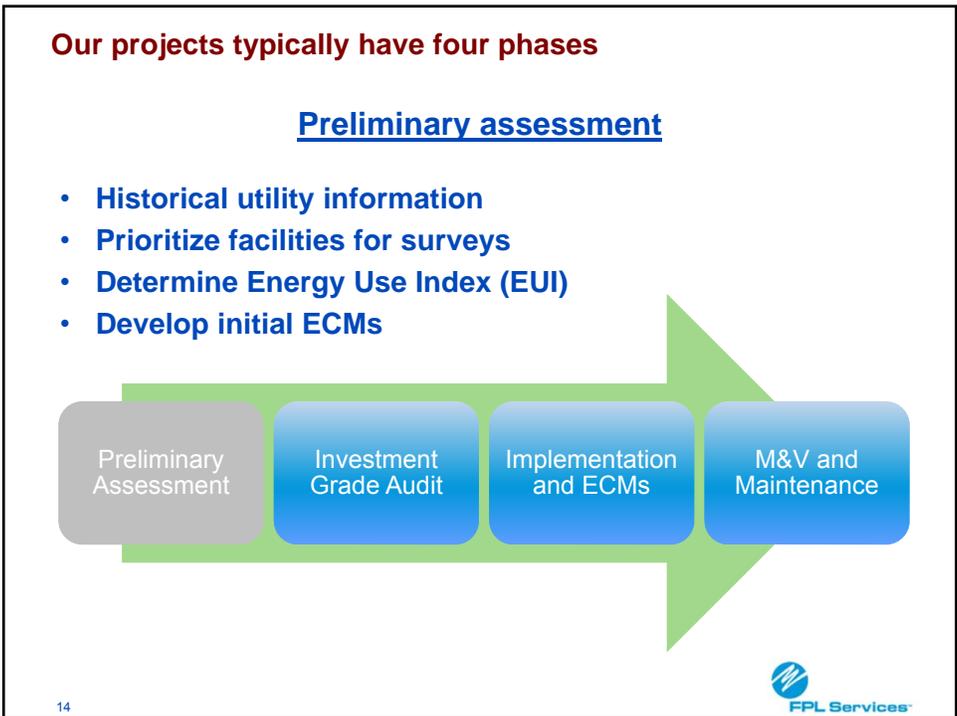
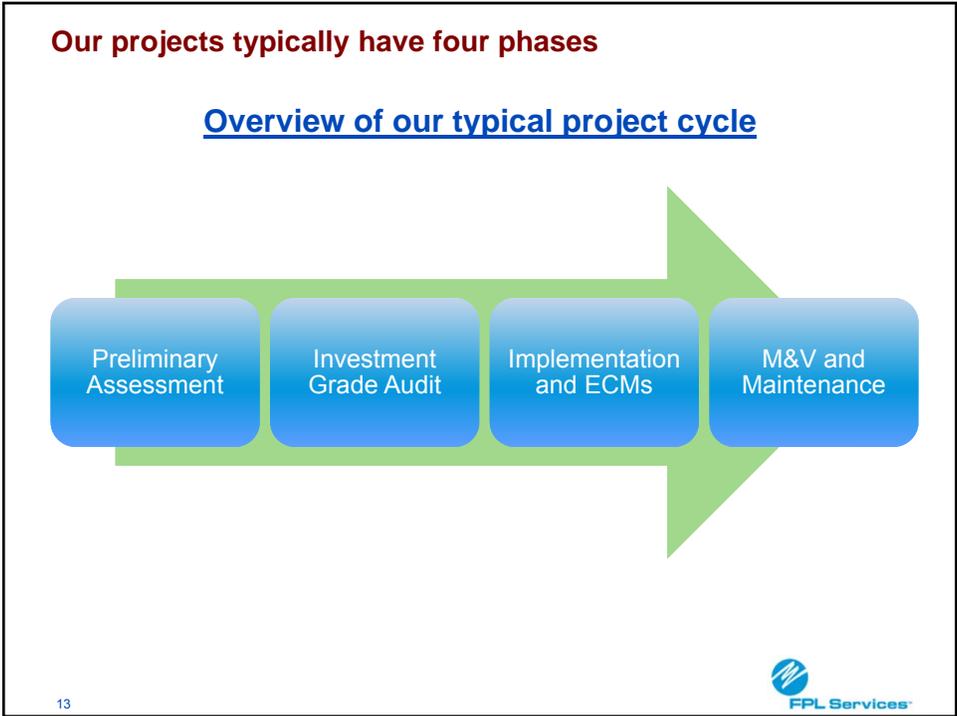
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Benefits of bundling ECMs through performance contracting

Combining long and short-term paybacks results in a cost-effective project



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Have a defined process for scheduling project implementation

- **Scheduling resources**
 - Critical Path Method to manage overall schedule
 - Critical Path Analysis to manage individual tasks
- **Daily status reports**
 - Provide a wide range of information in near real-time
 - Ability to pre-emptively address issues
- **Two-week look-ahead schedule**
 - A detailed plan and daily breakdown of the overall schedule
 - Used to manage in-field construction



Regularly monitoring progress allows delays to be quickly addressed, minimizing the impact to the overall project schedule

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Our projects typically have four phases

Investment Grade Audit (IGA)

- Perform detailed facility survey
- Baseline savings and scope of work
- Develop implementation pricing
- Develop project guarantee documentation



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Investment Grade Audit Methodology

- **Identify high usage through Energy Use Index**
- **Create Preliminary Assessment report identifying targeted ECMs**
- **Initiate detailed energy audit consisting of:**
 - Site Visit/Data Collection
 - Observe existing conditions (building construction, site layout, equipment/systems, lighting, etc.)
 - Record equipment nameplate data, building material used, and/or quantity/type/light levels of fixtures
 - Record/observe run time hours, energy and/or flows/temperatures (installation of meters, review of historical data and/or interviews with operation/maintenance personnel, etc.)
 - Gather historical data (drawings, specifications, data logs, utility bills, etc.)
 - Interview operation/maintenance personnel

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Investment Grade Audit Methodology

- **Perform Analysis and Calibrate**
- **Typical ECMs include:**
 - Lighting
 - Inputs include type of fixture, watts per fixture, square footage, run time
 - Outputs provided are energy and power consumed (kWh and kW)
 - Formulas are based on industry/engineering/ NextEra Energy Solutions standards
 - HVAC
 - Inputs include building construction, equipment data/efficiencies, operational schedules, weather data, etc. Utilize Trane Trace and/or other energy simulation software, as appropriate
 - Outputs include cooling/heating loads, energy and power consumed (kWh, kW and/or therms)
 - Efficiencies are determined from measurements, Original Equipment Manufacturer (OEM) data and/or engineering evaluations
 - Water
 - Inputs include type of fixture, gallons per flush
 - Outputs provided are energy consumed (gallons)

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Investment Grade Audit Methodology

- **Finalize Report**
 - Create design drawings and specifications
 - Determine construction cost to implement
 - Determine simple payback on an individual basis and in total
 - Identify recommended measures

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Our projects typically have four phases

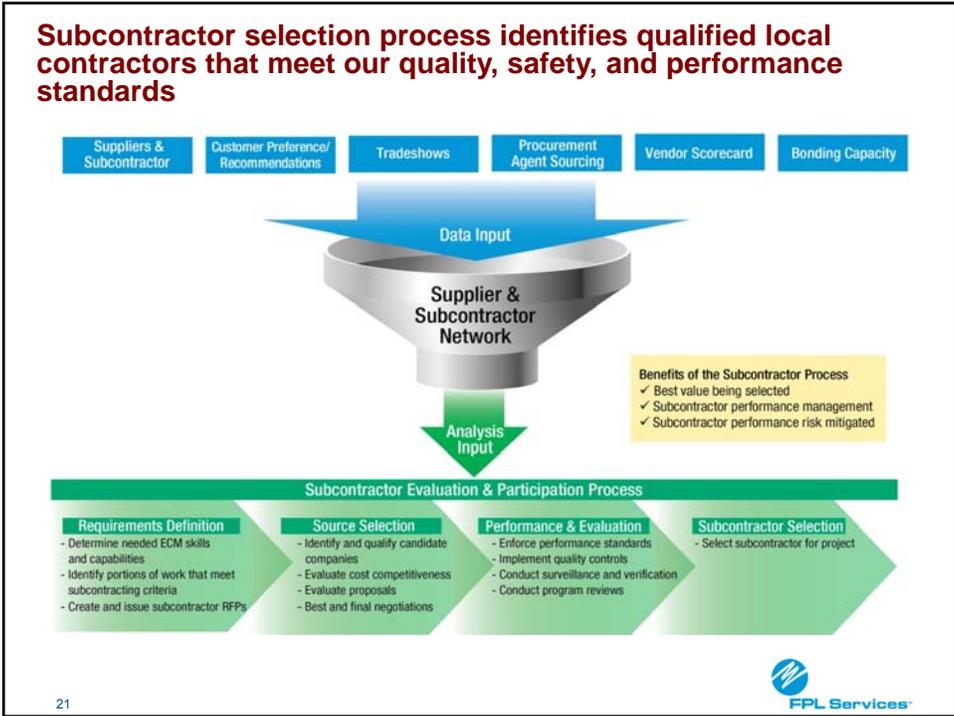
Implementation and ECMs

- **Conduct pre-install monitoring**
- **Finalize designs and implementation**
- **System commissioning and training**



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- Incorporate coastline considerations and hurricane preparedness into our process**
- **Coastline considerations**
 - High heat, humidity, salt contamination, high winds, and driving rain impact construction schedule and equipment performance
 - **Hurricane preparedness**
 - A coordinated and well-communicated hurricane plan is essential to project success
 - The plan includes:
 - Identification of annual seasonal preparatory plans
 - Pre- and post-landfall steps
 - Sequencing as the storm nears and the cone of uncertainty narrows
- FPLS has successfully implemented projects during hurricane season, with no schedule delays**
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- FPL Services

Our projects typically have four phases

M&V and maintenance

- **Post-install measurements**
- **Begin annual M&V reconciliation**
- **On-going maintenance**



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Performance contracting benefits: Triple bottom line

- **Economic**
 - Self-funding financial vehicle that pays for debt service out of savings
 - Reduces energy related operating expenses
 - Reduces maintenance & repair costs of aging equipment
 - Improves the bottom line
 - Upgrades infrastructure
- **Environmental**
 - Promotes sustainability stewardship
 - Supports energy efficiency goals
 - Reduces greenhouse gas and carbon foot print
- **Social**
 - Stimulates the economy and creates local jobs



Triple Bottom Line Benefits

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Project timeline: We have been a partner to Miami-Dade County for 15 years

Data and Operations Buildings
 • Back-up Generation
 • Building Infrastructure ECMs

Miami International Airport
 • New chiller plant and AHUs for outlying bldgs, daylighting for hangar
 • Helped solve funding issue
 • Installed 4000 ton chiller for Terminal Chiller Plant

Downtown Loop
 • Converted constant flow chilled water loop to variable flow
 • Connected new building to chilled water loop

Women's Detention Center
 • New chiller
 • Improved infrastructure
 • Solved potential County issue when original ESCO left

Downtown County Buildings Main County Government Buildings & Courthouses
 • Lighting and water ECMs

Correctional Facilities and Court Houses
 • Traditional ECMs and new Chiller Plant
 • Chilled Water Mini Loop; solved physical constraints preventing removal of old chiller

Miami International Airport
 • New lighting in terminal and concourses
 • Doubled light levels and solved mercury vapor lamp issue (phased out in 2008)

- Completed 11 energy performance contracts for Miami-Dade
 - Each delivered on-time and on-budget
 - Actual savings to date = \$45.3 million

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Case study: Miami-Dade Aviation Department

Miami International Airport

- Challenge:** Improve energy efficiency and lighting, while reducing greenhouse gas emissions and costs
- Solutions:**
 - High efficiency lighting retrofits
 - Occupancy sensors
 - HVAC upgrades
 - Chiller upgrades
 - Water conservation measures
 - Inverters for power sags
- Results:** Saves more than 35 million kWh per year and \$40 million over the contract period

AT-A-GLANCE - MIA PROJECT

- Project cost: \$32M
- Construction: 24 months
- Guarantee: >\$40M
- Payback term: 14 years
- Annual savings: \$2.2M
- Annual reduction: 35M kWh*
*Equivalent to 5,110 cars for one year
- Jobs created: more than 300
- Equipment**
- New light fixtures: 64,000*
*Reduced 400 different types of fixtures (from ~600 to ~200)
- New plumbing fixtures: 1,200
- Dip-proofer units: 326
- 2,500-ton chiller: 1
- Air-Handling Units: 8

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Environmental Impacts

Estimated annual savings of 35,200,000 kilowatt-hours translates to the following DOE equivalencies



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*Source: <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>



Proven Technologies Relevant at MIA

Before and After at MIA Baggage Assembly Area



Before induction lighting installed MIA Baggage Assembly area



After LED lighting installed MIA Baggage Assembly area

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Marketing plan

Marketing strategy

- **Key components of a customized marketing plan:**
 - Press release of the project through applicable social media sites
 - TV Commercials
 - 30-second spots to rotate different messages, English and Spanish
 - Micro-site and landing pages
 - Banners
 - Wall and Column Wraps
 - Digital Signage
 - Collateral - brochures and case studies
 - Participation in regional “green” events, sponsorships, trade shows, etc.
 - Targeted direct mail and email campaigns
 - Online activities including logo placement, landing pages, story placement, and website links

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Marketing plan

Sample marketing plan

Below is a summary of the possible marketing initiatives. A final marketing plan will be developed that meets budget and brand guidelines for all involved parties.

MARKETING INITIATIVE	SUMMARY	OBJECTIVES
Face-to-face	- Target consumers within designated region by distributing flyers explaining <<client>> relationship and member projects features and benefits.	- Create awareness about the <<client>> relationship. - Generate positive coverage of the relationship in targeted area. - Educate public about benefits. - Demonstrate how <<client>> and its members are making a positive contribution to the community with energy efficiency projects.
Press Releases	- Distribute press releases educating public about <<client>> relationship and projects.	- Generate media coverage to reach different audiences including key stakeholders, customers, environmental groups and business partners. - Promote major milestone achievements. - Gather neutral or positive feedback to be utilized in other marketing initiatives. - Reach for story in community newspapers.
Media Tours	- Hold media tour promoting <<client>> relationship and projects.	- Create awareness. - Generate media coverage. - Promote support for <<client>> projects and community. - Promote major milestones. - Use as platform to inform customers of updates related to the project.
<<client>>	- Promote <<client>>	- Create awareness of the relationship. - Educate public on features and benefits of energy savings projects.

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Marketing plan

Sample marketing plan

MARKETING INITIATIVE	SUMMARY	OBJECTIVES
Education Opportunities	<ul style="list-style-type: none"> - Seek opportunities to provide educational forums on the <<client>> relationship and member projects. - Create school projects to promote student awareness of energy efficiency (K-12) - Offer training courses to Universities 	<ul style="list-style-type: none"> - Create awareness of the <<client>> and its members' projects. - Educate public about savings potential of new projects. - Generate awareness of energy efficiency among all students. - Create training classes for those interested in a career in energy conservation. - Educate community on the benefits of energy savings projects.
Direct Mail Campaigns - Commercial	<ul style="list-style-type: none"> - Create and distribute direct mail campaigns to targeted <<client>> member contacts 	<ul style="list-style-type: none"> - Create awareness. - Promote project features and benefits.
Email Campaigns	<ul style="list-style-type: none"> - Create and distribute email campaigns to targeted <<client>> member contacts 	<ul style="list-style-type: none"> - Create awareness. - Promote project features and benefits.
Website Development	<ul style="list-style-type: none"> - Create website/web pages to place on various sites 	<ul style="list-style-type: none"> - Create awareness. - Promote project features and benefits. - Communicate and promote project updates/major milestones.
Search Engine Marketing	<ul style="list-style-type: none"> - Utilize key word search on 3rd party search engines 	<ul style="list-style-type: none"> - Create awareness. - Promote relationship and project features and benefits.
Billboard Advertising	<ul style="list-style-type: none"> - Secure billboard space in strategic location(s) within URA area. 	<ul style="list-style-type: none"> - Create awareness of <<client>> relationship and member projects. - Implement in conjunction with other direct marketing initiatives to increase awareness and response rates.
Transit / Bus Stop Advertising	<ul style="list-style-type: none"> - Secure bus stop stations along strategic areas within area to advertise. 	<ul style="list-style-type: none"> - Create awareness of <<client>>, our relationship and member projects.

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Marketing plan

Web Landing Page

[MIAEFFICIENCY.COM](http://miaefficiency.com)

<http://miami.cbslocal.com/2015/08/25/mia-rolls-out-new-energy-saving-project/>

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Thank you!

