



# EECBG PROJECT IMPLEMENTATION

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# GREENPRINT

## Goal #3: Energy Efficiency

*“Reduce / displace consumption of fossil fuels to meet Cool Counties' GHG emissions goals of 80% by 2050”*

*“Reduce electricity and fuel consumption of government operations to meet CCX fuel based emissions targets and 20% electricity consumption reduction targets”*

- Manage energy use to maximize efficiency, minimize GHG emissions and pollution, and displace fossil-fuel generated electricity with renewable energy

### OUR STRATEGIES

- 1 Reduce energy consumption through increasing energy efficiency of existing and new buildings community-wide (including schools) and other energy consuming assets (equipment)
- 2 Create public-private partnerships to increase energy-efficiency behaviors in the larger community, including homeowners, businesses, and seniors, and low-income groups (Leadership Overlap) (EECBG & CCATF B15)
- 3 Launch an energy (electricity & fuel) efficiency & conservation awareness campaign linking to water conservation efforts
- 4 Expand alternative fuel (bio-diesel/waste-based bio-diesel) and renewable energy industries (Overlaps with Vibrant Economy)
- 5 Be government leaders in energy efficiency

# MDC EECBG AWARD

- On September 14, 2009, Miami-Dade County was awarded \$12,523,700 through the Energy Efficiency and Conservation Block Grant (EECBG) Program which is funded under the American Recovery and Reinvestment Act (ARRA), and administered through the Department of Energy (DOE). The EECBG program, which includes 13 projects managed by eight County departments, is coordinated and administered by the Office of Sustainability (OOS). A complete list of projects is available at [green.miamidade.gov](http://green.miamidade.gov).

# MDC EECBG PERFORMANCE

In eight short months, major successes have been achieved by the County. In fact, officials in DOE headquarters consider Miami-Dade County a “strong grantee.” To date, \$6.8 million (over 50 percent) in EECBG funds have been obligated. Consistent with the intent of the grant, of that amount, nearly \$2 million dollars have been spent. Contracts, work orders or purchase orders have been issued for eight of the 13 projects. The other projects remain in different stages of bid award or pre-award mode including the preparation of specifications and scopes for Requests for Proposals (RFPs). Four positions have been retained/created and recruitments for two Energy Management Specialists was initiated.

# MDC EECBG PERFORMANCE

Nearly all conditions placed by DOE on the County's award, including the Historic Preservation and Waste Stream clauses, as well as NEPA Compliance, have been released. In addition, all ARRA and DOE reporting requirements have been met. Major program milestones include:

- Purchase and initial deployment of energy-efficient Thin Clients for the Desktop Virtualization Project
- Launch of the re-vamped [green.miamidade.gov](http://green.miamidade.gov)
- Launch of the Light Bulb Exchange Program – residents bring their most heavily used incandescent bulbs and exchange them for energy-efficient compact fluorescent lights (CFLs)
- Application release of the [Grants to Green Nonprofits \(G2GN\) Program](#)
- Executed an Interlocal Agreement with the South Florida Regional Planning Council for the management of the Targeted Industry Revolving Loan Fund; work is currently in progress.

Awarded contracts for the Development of Sustainable Capital Improvement Procedures and Guidelines and the Energy Efficient & Sustainable Buildings Evaluation of Building/Zoning Codes & Permitting Processes; work is currently in progress.



# EECBG

- Enterprise-wide Energy Management Systems Upgrade and Coordination Project
- Sustainable Capital Improvement Processes Evaluation and Recommendations Consultant Project
- Building and Zoning Code and Permitting Processes Evaluation and Recommendations for Maximizing Energy Efficiency and Conservation
- Targeted-Industry Energy Efficiency Revolving Loan Fund
- Community-wide Behavior Change-based Energy Efficiency Campaign

# CODE & PERMITTING PROCESS

The implementation by the County of the resultant code and building permitting policies and procedures will involve internal and external stakeholder participation that include but will not be limited to the following County departments and stakeholders: a) OOS as the lead implementing agency for the County's Sustainable Building Ordinance, b) Office of Development Coordination (ODC), which provides for inter-departmental development coordination, c) Building and Neighborhood Compliance (BNC), d) Building Code Compliance Office (BCCO), e) Department of Planning and Zoning (DPZ), f) Department of Finance (Finance), g) Department of Environmental Resources Management (DERM), h) Miami-Dade County Climate Change Advisory Task Force's (CCATF) Greenhouse Gas Reduction – Energy & Buildings Subcommittee, i) Miami-Dade County Building Officials Group, j) The Building Association of South Florida, k) The Latin Builders Association, l) South Florida US Green Building Council Chapter Government Education Committee, and m) Florida Green Building Coalition's Green Local Government Committee. The County's facilitation, provided by the above listed County Departments, will represent the leveraged resources identified in the EECBG application. Other central support County departments and relevant committees, with oversight over particular Miami-Dade code chapters, may also be engaged in the assessment, evaluation and recommendations development process. For more information on any of the above listed County departments, go to [www.miamidade.gov](http://www.miamidade.gov).

- A. Initial Meeting:** The selected Proposer shall participate in a project planning in-person meeting with the County, to include representatives from OOS, ODC, BNC, BCCO, DPZ, Finance, DERM, CCATF, other relevant County departments, and relevant internal and external stakeholders, with oversight over particular Miami-Dade code chapters, to be scheduled by the County Project Manager. The County will issue a Notice to Proceed (NTP), when the contract award requirements have been met. The project planning meeting with the County's project team shall take place no later than twenty (20) days after NTP.

# CODE & PERMITTING PROCESS

**C. Assessment and Evaluation:** The selected Proposer shall evaluate and assess the existing County-specific and national “best practices” of code and building permitting policies and procedures. This process will include interviews of relevant County staff, as well as, staff of other stakeholders and applicable organizations, listed in 2.1(A). This assessment shall address at a minimum, documenting specific obstacles and suggestions for the entire spectrum of code and building permitting process and policies from the CDMP, zoning, platting, infrastructure and permitting. The results of the assessment and evaluation process shall include the development of a Sustainable Code and Building Permitting Procedure Guidelines/Manual document and other policy and procedural recommendations (see Section D). Assessment and Evaluation shall include, but are not limited to, the following tasks:

## **Task # 1**

The selected Proposer shall evaluate:

- a) How the County policies and procedures encourage, discourage or otherwise impact the design, construction, renovation/remodeling of high energy performing buildings;
- b) At a more macro-scale, the development of neighborhood / urban center-scale energy-efficient and climate-friendly (including transportation) built environments and land use.; and
- c) At least eight actual project-types (where applicable) including:
  - i. Residential new construction;
  - ii. Residential renovation/existing building;
  - iii. Commercial new construction;
  - iv. Commercial renovation/existing building;
  - v. Industrial new construction (as applicable);
  - vi. Industrial renovation/retrofit/expansion (as applicable);
  - vii. Neighborhood-scale development (as applicable, e.g., LEED ND certified/pilot project); and
  - viii. Neighborhood re-development (as applicable, e.g., LEED ND certified/pilot project).

# CODE & PERMITTING PROCESS

Note: For purposes of this analysis, the County defines high energy performing / green certified buildings / facilities as those that either have been newly constructed or have undergone an existing building upgrade/renovation and have been achieved high levels of sustainability/energy performance certification (e.g., Gold and Platinum LEED certified or alternative certification, Energy Star score > 90 or other high energy/climate performance rating).

## **Task # 2**

The selected Proposer shall evaluate “best practices” of other compatible locals/jurisdictions and how they are applicable to the County. This process would entail a national review of building and zoning codes, land use regulations/approaches and permitting processes and incentive programs for land development, new construction, major/minor renovations and re-zonings that successfully enable:

- a) Increased energy-efficiency/conservation;
- b) Installation of renewable energy systems or other energy conserving measures;
- c) Decreased (relative to a baseline) vehicle miles traveled (VMT) associated with a residential and commercial development / development patterns;
- d) Decreased GHG emissions through materials and resource management strategies; and
- e) Other energy conserving and GHG emissions reducing measures.

**Deliverable:** The selected Proposer shall:

Provide one (1) hard copy and one (1) CD, or other approved format, in both a narrative and table matrix format (or other applicable formats), of the results of the both Task #1 and Task #2 above, of the assessment and evaluation process, within 90 days of the approval of the Plan of Action.

# CODE & PERMITTING PROCESS

## Task #3

The selected Proposer shall synthesize the Initial Draft Sustainable Code and Building Permitting Procedures Guidelines/Manual document based on the assessment and evaluation results of Tasks #1 and #2 above.

**Deliverables:** The selected Proposer shall:

- i. Present one (1) hard copy and one (1) CD, or other approved format, of the Initial Draft Sustainable Code and Building Permitting Procedure Guidelines/Manual document (Task #3), to the County Project Manager for review and comment no later than 180 days after the approval of the Plan of Action. The County's Project Manager will review the draft document and provide the selected Proposer with feedback within 30 days of receipt of said document.
- ii. Provide ten (10) hard copies (in color if applicable) and ten (10) CDs, or other approved format, of the Final Sustainable Code and Permitting Procedure Guidelines/Manual (Task #3), after incorporating County's feedback, to the County Project Manager no later than 60 days after the County has returned the initial draft document with feedback to the selected Proposer.

Note: The delivery of Task #3 is related to the work to be performed under Task #4, therefore, the selected Proposer shall develop the Sustainable Code and Building Permitting Procedures Guidelines/Manual concurrently with Task #4.

## Task #4

The selected Proposer shall develop, in addition to the narrative document referenced in Task #2, an orientation module for code and permitting staff, which will provide an overview of policy and procedural recommendations outlined in Tasks #3 and Task #4.

# CODE & PERMITTING PROCESS

**E. Review of Findings/Orientation:** The selected Proposer shall present the analysis and findings, proposed policies, procedures and implementation strategies, in Power Point format, no later than 30 days after the Final Guidelines/manual has been accepted by the County. The selected Proposer shall conduct at least one review/orientation for the following stakeholder groups listed below. The County Project Manager will schedule the review and orientation session(s) with the appropriate parties, including providing the venue.

Stakeholder groups are as follows:

- i. Office of Sustainability;
- ii. Office of Development Coordination;
- iii. Building and Neighborhood Compliance;
- iv. Department of Planning and Zoning;
- v. Building Code Compliance Office
- vi. Department of Finance;
- vii. Department of Environmental Resources Management;
- viii. Miami-Dade County Climate Change Advisory Task Force's Greenhouse Gas Reduction – Energy & Buildings Subcommittee;
- ix. Miami-Dade County Building Officials Group;
- x. The Building Association of South Florida;
- xi. The Latin Builders Association;
- xii. South Florida US Green Building Council Chapter Government Education Committee;
- xiii. Florida Green Building Coalition's Green Local Government Committee; and
- xiv. Other central support County departments and relevant committees, with oversight over particular Miami-Dade code chapters

# CODE & PERMITTING PROCESS

**D. Recommendations:** As part of the policy and procedural recommendations, the selected Proposer shall provide a comprehensive sustainable development code, permitting processes and growth management/development policies framework outline, which identifies other potential sustainable development parameters that do not have an energy or climate change mitigation impact, either directly or indirectly.

Recommendations shall be in the form of a narrative that will detail policies and procedural suggestions that shall be considered for adoption across, but not limited to, the following policy intervention areas.

- a) Governmental operation procedures (development coordination and approval/permitting processes, etc.);
- b) Platting and Infrastructure Development;
- c) Growth Management Policies – CDMP;
- d) Land Development Regulations;
- e) Zoning Code (address residential, commercial and industrial land use categories);
- f) Building Code;
- g) Enabling Policies for Community-wide Energy Efficiency and Renewable Energy Financing Programs; and
- h) Other relevant policies and procedures

# TARGETED INDUSTRY ENERGY-EFFICIENCY REVOLVING LOAN PROGRAM

- Project Description: The County will offer a competitive Revolving Loan Fund (RLF) for key economic sectors (ex. hotel/resort industry) in our community that represent a significant share of electric energy consumption relative to other sectors/industries and demonstrate the capacity to increase energy efficiency through the use of loan funds. This program represents a partnership with the South Florida Regional Planning Council (SFPRC) for the development and administration of the RLF. The SFPRC has a recognized history of successful revolving loan servicing and program management. Their implementation plan for this partnership is outlined below.
- Target Industry Working Group
- (1) Partnering with Miami-Dade County, Florida Power and Light, product manufacturers, the business community, and economic development interests to determine the industries or sectors with the highest potential for increases in energy efficiency by participating in the program. The Working Group will focus on three primary targeted industries that would benefit from the availability of low-interest loans for retrofits and renovations to increase energy efficiency.

# TARGETED INDUSTRY ENERGY-EFFICIENCY REVOLVING LOAN PROGRAM

- Loan Development Plan
- (1) Convene a technical review committee to determine the program's overall goals and objectives. This group will monitor the initial program creation and serve as the technical review committee to the Loan Administration Board.
- (2) Develop Program details: Loan terms including start dates and close dates, Minimum and Maximum Loan Amounts, Interest Rates, Eligibility Criteria, Technical Review Committee guidelines, Application and Approval Process, Payment terms, Technical assistance, Loan Administration Board Guidelines, Borrower Reporting Requirements, which should include documentation of energy savings and job creation/retention (NEPA requirements will be addressed for each loan application).
- (3) The SFRPC will manage the RLF under the review of the Technical Committee and its Loan Administration Board through a fee for service to Miami-Dade County and the interest gained on the principal investment.
- (4) The fund will sustain itself through the interest and fees for the duration of the program.
- (5) The fund will work toward the goal of a 2:1 leverage of private investments.

# TARGETED INDUSTRY ENERGY EFFICIENCY REVOLVING LOAN

- Loan Disbursement and Servicing (12 months)
- (1) Program Marketing and advertising to potential borrowers
- (2) Application and approval processing
- (3) Maintaining targeted goals or benchmarks
- (4) EECBG requirement that loans will be obligated within 18 months and closed within 36 months will be met
- (5) All EECBG requirements will apply and be passed on to recipients
  
- Loan Program Maintenance
- (1) Reporting to Miami-Dade County in accordance with EECBG requirements
- (2) Monitoring program performance through administrative loan terms that borrowers report jobs created/retained and energy conserved using the measurement standard established by Miami-Dade County and the Technical Review Committee
- (3) Evaluating program and potentially recommending an adjustment to selection criteria or targeted industries

# ENERGY MANAGEMENT SYSTEMS UPGRADE / COORDINATION PROJECT

## Activity Description:

We will put in place the accounting and energy management software and equipment (meters/sub-meters), real-time building dashboard interfaces, process and control strategies as well as the centralized energy management functionality to better manage and reduce energy consumption of energy intensive facilities and industrial processes within the County. The County would like to be able to analyze energy consumption across electric accounts and within specific facilities (asset level). This activity will complement and improve upon our existing GHG emissions tracking activity. We expect this activity to continue to sustain itself through further investment and leverage from the Utility's plans for smart meter installations in Miami-Dade County. Our existing fuel consumption tracking should also be able to be tied into this overall energy management system.

# ENERGY MANAGEMENT CONT.

Provide real-time integration and visibility of building management systems, metering subsystems, and asset management applications. Specific objectives are as follows:

- (1) Enhance utility billing information capture and analysis and integrate with energy management tools.
- (2) Provide automated, real-time measurement, analysis, and reporting of key performance indicators associated with subsystem operations, energy use and power quality, and equipment maintenance management and performance.
- (3) Provide pro-active anomaly identification and recommendations for results-oriented energy demand usage, maintenance program refinements, asset process control strategies, and infrastructure design, change, management that will enable energy reduction targets to be met or exceeded.
- (4) Facilitate adoption and business process integration of Continuous Commissioning process for on-going monitoring of subsystems to continually expand energy conservation efforts and maintenance/ asset management improvements for further sustainable cost reductions.
- (5) Provide real time measurement of energy and CO<sub>2</sub>e intensity (Scope 1 and 2) to support independent verification and validation of Energy Efficiency and other Energy Conservation Measures (ECM) programs.
- (6) Secure 3rd party independent technical oversight, evaluation, and consultation for systems upgrade and integration activities.