



***Guaranteed Energy
Savings Performance
Contracting:***

Investment Grade Audit





Purpose of Audit

- ❑ Identify County Wide Energy Efficiency Improvements not Covered in CIP
- ❑ Next Step in Advancing Energy Efficiency Measures
- ❑ Supported by FL Statute 489.145
- ❑ Approved by the BCC on July 24, 2012



Benefits of Performance Contracting

- ❑ Save Energy, Conserve Water and Reduce Operational Costs
- ❑ Advance Energy Efficiency and Resource Conservation
- ❑ Leverage Energy and Operational Savings to Make Recommended Improvements





Step 1- Strategic/Feasibility Review

- Reviewed County Goals
 - Sustainable, Operational, Financial
- Performed a Utility Data Analysis UDA
 - Past Three Years of Energy Bills
 - Reviewed Budgets, CIP
- Studied Facility Operational Patterns
 - Tours, Interviews
 - Facilities Benchmarked Using CBECs



Attic Wall Lack Insulation



Ceiling Heat Transfer and Infiltration Areas



Step 1- Strategic/Feasibility Review

□ Facility Improvements (FIMs) Identified for Audit Review Were Selected Based On:

- Energy Savings
- Cost Savings
- Age/Condition of Existing Equipment
- Simple Payback/ROI
- Environmental Impact
- Needs of Charlotte County





Step 2 - Investment Grade Audit- Process

- Physical In-Depth Inspection of:
 - 20 Facilities
 - 1.1 Million sq ft
- Review of Major Energy Consumers
 - Murdock Complex, Jail, Street Lighting and Utilities
- Surveys of Facilities, Systems and Equipment
 - Equipment: Inventory, Age, Condition, Maintenance, Ratings, Run Times, Proposed Repairs and Replacement Schedules





Step 2 - Investment Grade Audit- Process

- Performed Calculations, Engineering and Pricing of Potential Improvements
 - Evaluated Systems/Processes such as CHW, Thermal Storage etc, Alternative Technologies, Advanced Controls
 - Teamed with Local Contractors, Vendors to Verify Material Selections, Local Availability, Proposed Scopes, Pricing

Public Safety / EOC Building
County Jail (New Building)
County Jail (Original Building)
County Jail (Out Buildings)
Sheriff Administration
South County Annex
Murdock Admin Building - Bldg A
Murdock Admin Building - Bldg B
Murdock Admin Building - Bldg C
Historic Courthouse
Justice Center
Punta Gorda Library
East Port Environmental Campus
East Port WWTP
Charlotte Sports Complex
Family Services Center
Fire / EMS Vehicle Maintenance
Oyster Creek Pool
South County Park
West Port WWTP



Step 2 - Investment Grade Audit- Process

- Compared Recommendations to Specific Project Goals
 - County Needs, Identified Savings and ROI
 - Confirmed Scope of Phase 1 Project
- Proposed FIM Groups Included:
 - Interior, Exterior, Sports Lighting and Controls
 - HVAC Systems and Related Equipment
 - Water Conservation
 - Electric Motors 5 hp and Above (VFDs)
 - Building Envelope/Insulation Upgrades
 - Geothermal, Pool Salt Generators





Step 3 - Investment Grade Audit-Findings and Recommendations

- County Currently Making Great Strides
 - Holistic Approach to Energy Conservation
 - Sustainability Team, Energy Tracking, Energy Initiatives Projects
 - Ongoing Education and Awareness
- Confirmed Phase 1 Project Scope within Project Parameters
 - Outlined on Page 6 of Audit
- Projected Project Savings Include:
 - 1,564,934 kwh Electricity, 2,882 kgals water, 18,757 therms NG, 20,628 gallons of Chlorine
 - \$ 218,730 in Year One Energy Savings
 - \$ 5,028,313 Gross Total Energy/Ops Cumulative Project Savings
- Simple Payback of 13.8 years



Process ~ Next Steps

