

# Performance Solutions for the City of Hallandale Beach

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Achieving beyond the boundaries with...

**SIEMENS**

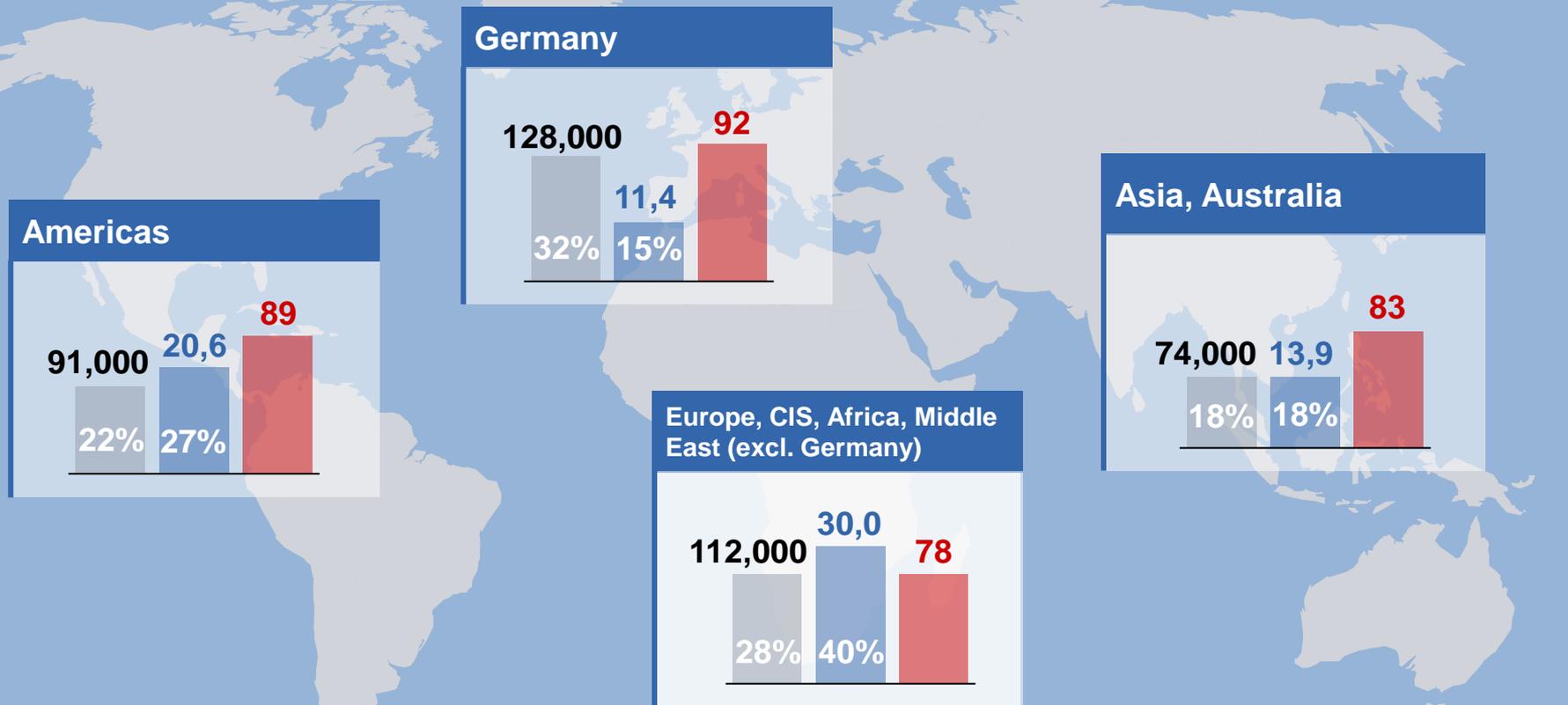


## Agenda

- Siemens Industry, Inc.
- Talking about the Benjamin's...
- Case Studies on local Projects



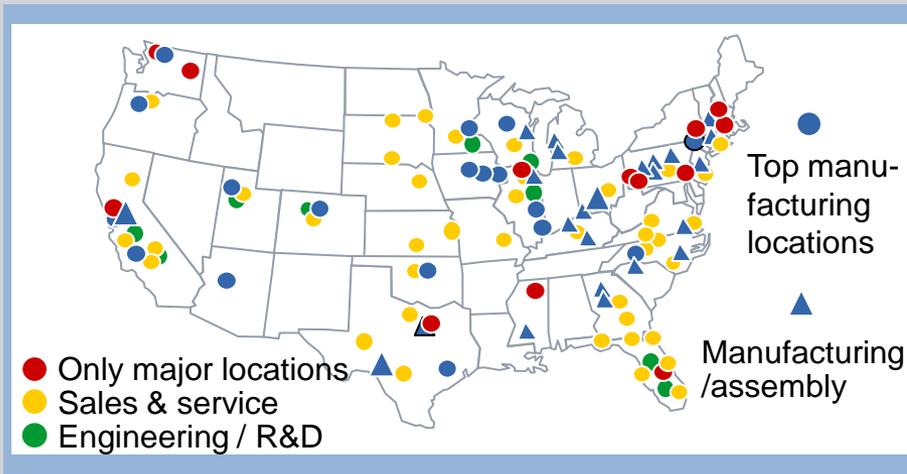
## Global presence – basis for competitiveness



As of September 30, 2010

Employees
  Revenue (billions of euros)
  Major production facilities

## U.S. – broad presence in the world's toughest market



### Overview of fiscal 2010

<b>Employees</b>	<b>61,000</b>
<b>New Inventions</b>	<b>8,800</b>
<b>Applied for Patents</b>	<b>4,300</b>
<b>Total Siemens Patents</b>	<b>58,000</b>

### Siemens is modernizing the U.S. infrastructure

- Siemens **Concentrated Solar Thermal Technologies**
- Siemens has installed over **3,300 MW of Wind Turbines**
- **Over 1300 Energy Savings Performance Contracts**
- **Invested \$400 million and created some 3,000 green manufacturing jobs**



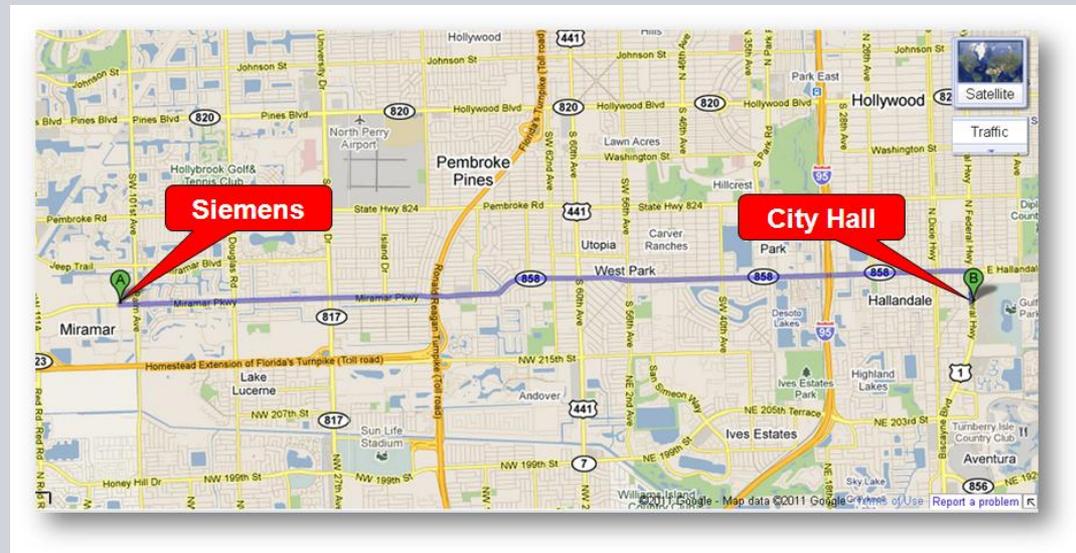
## How can a Global Company Help You?

- 48 Offices & 5,200 employees in Florida
- 450 Building Technologies Employees
- Project Managers & Service Technicians always on call...
- Siemens provides 24/7 service response capability



### Offices near Hallandale Beach

- Miramar Office 9 miles
- Palm City Office 91 miles



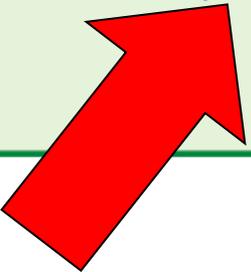
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- Real World Projects
- Talking about the Benjamin's...
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*“Appropriations should be requested in annual budget requests and prioritized for application in projects or measures that do not generate savings sufficient to support private sector financing or for application as cost share to ESPCs/UESCs so that larger, more comprehensive projects can be undertaken.”*

- OMB Instructions to E.O. 13423

**In other words:** Exhaust private financing opportunities before using scarce appropriated funds; reserve appropriated funds for things that don't self-fund.



## Reserve Appropriated Funds...

- You get \$5 million a year for infrastructure improvements...
- But you have **\$10 million in needed improvements**
- Assuming all items have equal priority, should you use private financing?
  - Renovate Commission Chambers
  - Paint Police Stations
  - Replace Security Systems at Aquatic Center
  - New Fire Truck
  - Purchase New Police Radios & Computer Systems
  - Upgrade all Exterior and Interior lighting
  - Replace Pumps at Water Treatment Plant
  - Install Energy Management System

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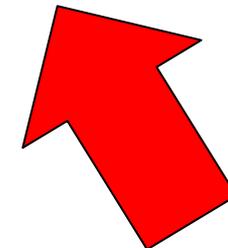
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## Internal Audits Show Projects *Exceeding* Guaranteed Cost Savings

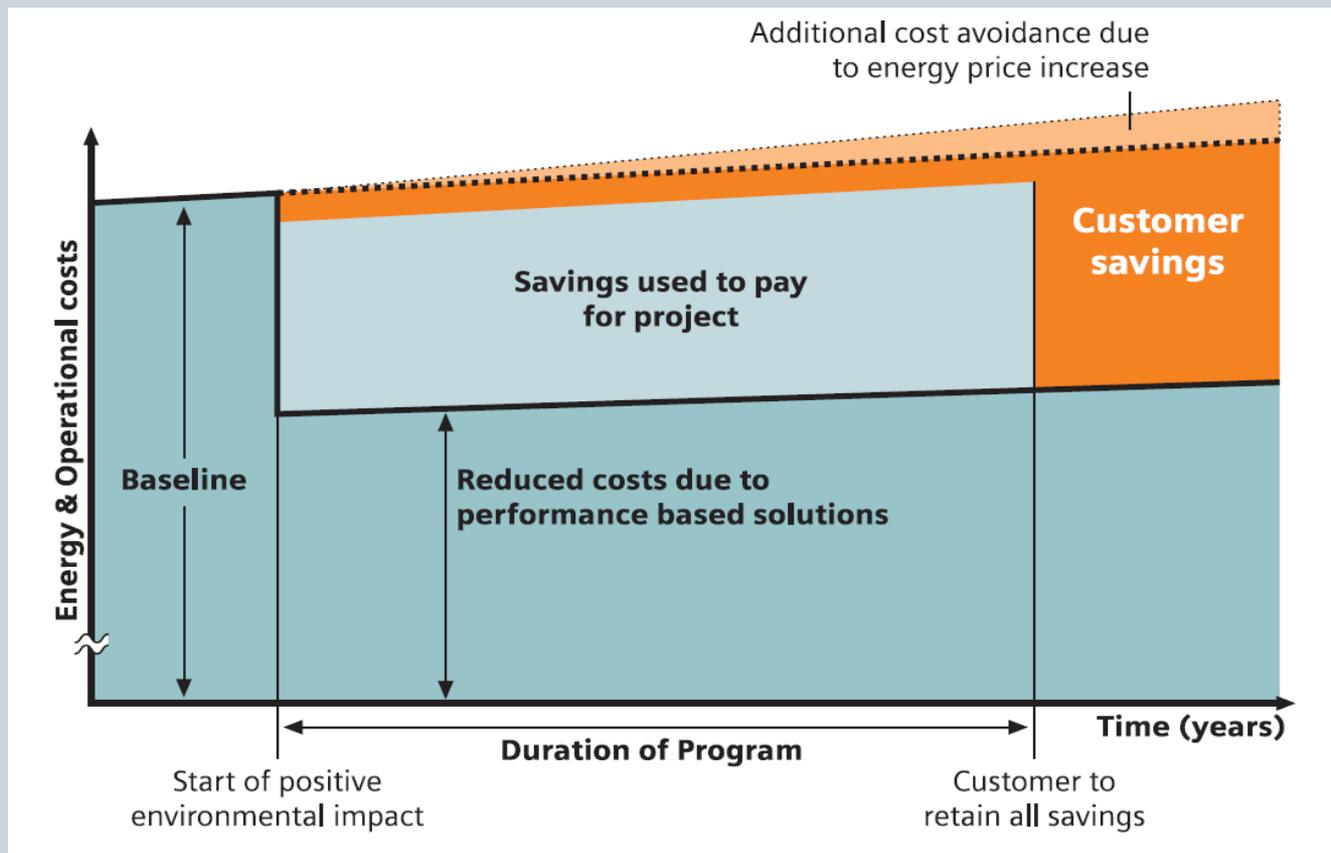
- **Reported savings** average 107% of guaranteed savings
- **Based on a random sample** of 22 projects analyzed in 2007, cost savings based on actual rather than contract utility rates were 110% of reported savings
- **Assuming energy savings** are as reported, actual cost savings are about  $(1.08 \times 1.10) = 119\%$  of guaranteed savings on average



## Reallocating the City's Expenditures

### Reallocation means:

- Stop paying for waste and pollution
- **Start paying for efficiency**



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# Helping Our Nation's Communities Make a Difference

## A Technology Neutral Company...

<p><b>Alternative/Renewable Energy</b></p> <ul style="list-style-type: none"><li>▪ Solar Energy</li><li>▪ Biogas Technology</li><li>▪ Wind Energy</li></ul>	<p><b>Water Meter Retrofits/ Replacements</b></p> <ul style="list-style-type: none"><li>▪ Automatic Meter Infrastructure (AMI) Technology</li></ul>	<p><b>Mobility Solutions</b></p> <ul style="list-style-type: none"><li>▪ Integrated Parking &amp; Enforcement System</li><li>▪ Electric Vehicle Charging Stations</li></ul>
<p><b>Traffic Lights/Street Lighting Retrofits</b></p> <ul style="list-style-type: none"><li>▪ Light-emitting Diode (LED)</li><li>▪ Back-up Battery Systems (BBS)</li><li>▪ LED and Induction Street Lighting</li></ul>	<p><b>Waste Water Treatment Plants</b></p> <ul style="list-style-type: none"><li>▪ Blowers Upgrade</li><li>▪ Dissolved Oxygen (DO) Control Systems</li><li>▪ Digester Gas Technology</li><li>▪ Methane Capture/Conversion Systems</li></ul>	<p><b>Green Buildings</b></p> <ul style="list-style-type: none"><li>▪ Energy Efficiency Upgrades</li><li>▪ Water Efficiency Upgrades</li><li>▪ Reduced Carbon Footprint</li><li>▪ Green Rooftop Installations</li></ul>

# Water Technologies:

Leading provider for water and wastewater treatment for industries and municipalities

**SIEMENS**



## Municipal Drinking Water

- Membrane Filtration
- Conventional Treatment



## Municipal Wastewater

- Bioclarification
- Solids Reduction



## Municipal Drinking & Wastewater

- Corrosion and Odor Control
- Chlorination



## Process and Wastewater Treatment for:

- Food & Beverage
- Microelectronics / Solar
- Life Science



## Process and Wastewater Treatment for:

- Oil & Gas
- Power
- Mining

**Siemens creates value from water –  
for industrial and municipal customers, for the environment and for society.**

# Complete Transportation:

Answers to moving traffic, freight and people faster and safer

**SIEMENS**



- Rail electrification
- Turnkey projects



- City-wide control systems
- **Park and e Charge**
- Traffic signalling products
- **Electric Charging Stations**



- Traffic and streetlight maintenance
- Maintain 10,000 signalized intersections
- **Over half a million LED traffic retrofits**

**Integrated transport solutions for safe and clean mobility**

## Building Automation (BAU) Business Unit: Leading provider for energy, environmental and building performance expertise



- New construction
- Consultant support
- Complex buildings
- Building Automation System is a key building block for an intelligent infrastructure



- **Existing building market**
- **Services to maximize uptime, energy and operational efficiencies**
- **Service contracts**
- **Service projects**



- Existing building market
- Typically public sector
- New focus on private markets
- Guaranteed performance based solutions that fund capital improvements through energy savings

**BAU is leading provider of integrated building solutions that span the entire building lifecycle.**

# Building Technologies Division:

A leading global player in the building automation, safety and energy efficiency market

**SIEMENS**



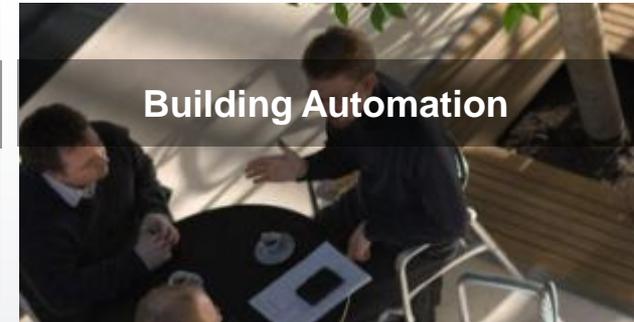
## Security

- Our integrated security solutions and services assess risk and address the growing security needs of our customers



## Fire and Life Safety

- Our fire and life safety products, services and solutions protect the life, property and buildings of our customers



## Building Automation

- Our building automation solutions and services provide high performing, comfortable building environments to our customers



## Low Voltage Distribution

- Our low voltage power distribution and optimization products provide totally integrated power for our customers



## Energy Efficiency, Green Buildings & Renewable Energy

- Our energy and green building solutions optimize energy usage providing our customers with energy efficient and sustainable environments



## Control Products and Systems

- Our innovative control products integrate seamlessly into our customers' properties providing improved system performance

**BT is leading provider of integrated building solutions!**

## Case Study – City of Pompano Beach

- Project Improvements: \$14.6 million
- Annual savings / revenues: **\$1.53 million**
- Simple payback: 9.7 years (8.8 ARRA)

### Improvement Measures (Facilities & Utility)

- Advanced Meter Infrastructure (AMI)
- Water Treatment Plants High Service Pumps
- HVAC / Variable Frequency Drives
- Lighting retrofits / Occupancy Sensors
- Central Energy Plant (City Hall)
- Energy Management System
- Fire Alarm System
- Ionization System (Aquatic Center)
- Golf Cart Charging Optimization
- Water Conservation



## Case Study – City of Sarasota

- Project Improvements: **\$8.5 million**
- Annual savings / revenues: **\$1.9 million**
- Simple payback: **4.5 years**



### Improvement Measures (Facilities & Utility)

- Advanced Meter Infrastructure (AMI)
- Odor Control System (WTP / Lift Stations)
- LED Streetlights
- Lighting retrofits / Occupancy Sensors
- Chiller upgrades
- Air Handling Unit replacements
- Energy Management System
- Water Conservation



## Case Study – City of Oviedo

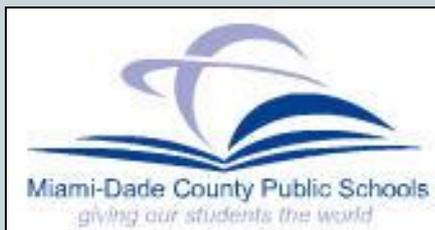
- Project Improvements: **\$3.5 million**
- Annual savings / revenues: **\$636,000**
- Simple payback: **5.5 years**

### Improvement Measures (Facilities & Utility)

- Advanced Meter Infrastructure (AMI)
- Geothermal heating/cooling Aquatic Center
- Lighting Upgrades
- HVAC Upgrades
- Water Treatment Plant Upgrades
- Building Envelope Upgrades
- LED Street Lights
- Pool Ionization System
- Solar Swimming Pool Heaters



## Performance Contractor of Choice in Florida



**Thank you for your time**



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