

Pepco Energy Services



ENERGY STAR Networking Meeting

Washington, DC



May 22, 2008



Pepco Energy Services

- **Pepco Holdings, Inc.**

- PHI delivers electricity and natural gas
- More than 1.9 million customers
- Delaware
- District of Columbia
- Maryland
- New Jersey
- Virginia
- Pepco
- Delmarva Power
- Atlantic City Electric
- Conectiv Energy, and ...

- **Pepco Energy Services, Inc.**

- Wholly-owned Unregulated Subsidiary of Pepco Holdings, Inc.
- Diversified Energy Services Company
- Electric, Natural Gas, Renewable Energy
- Energy Services
 - Energy Performance Contracting
 - Thermal Energy Solutions
 - Electric Generation
 - Peak Power Generation
 - Emergency Power Generation



Energy Performance Contracting

- Guaranteed Turnkey Solution
- New assets, additional capacity and reliability
- Paid for from guaranteed cost savings:
 - **Energy** – reduced energy consumption and energy demand
 - **Operational** – maintenance, service contracts
 - **Capital Avoidance** – offset future planned projects, reallocate monies
- No capital expenditures incurred
- Energy education and awareness
- Meet energy efficiency initiatives/requirements



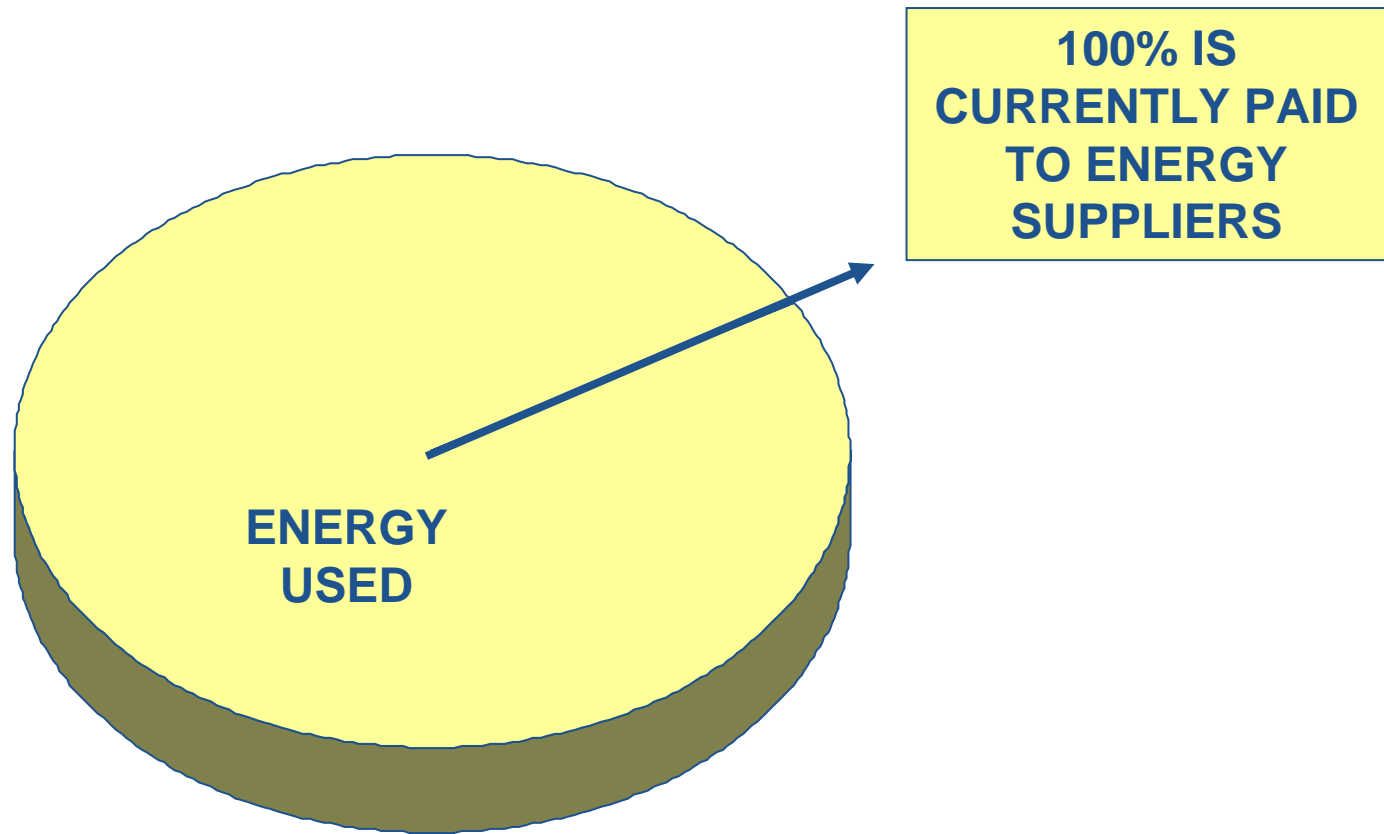
Energy Performance Contracting

Is an alternative solution to ...

- Assets that are Beyond Useful Life
- Need for Additional Capacity
- Limited Budget and Resources
- Deferred Maintenance
- Eliminating “Hot” and “Cold” Calls
- Generating Cash Flow
- Alternative Funding Source
- Meeting ASHRAE and IESNA Guidelines
- Re-commissioning HVAC Systems

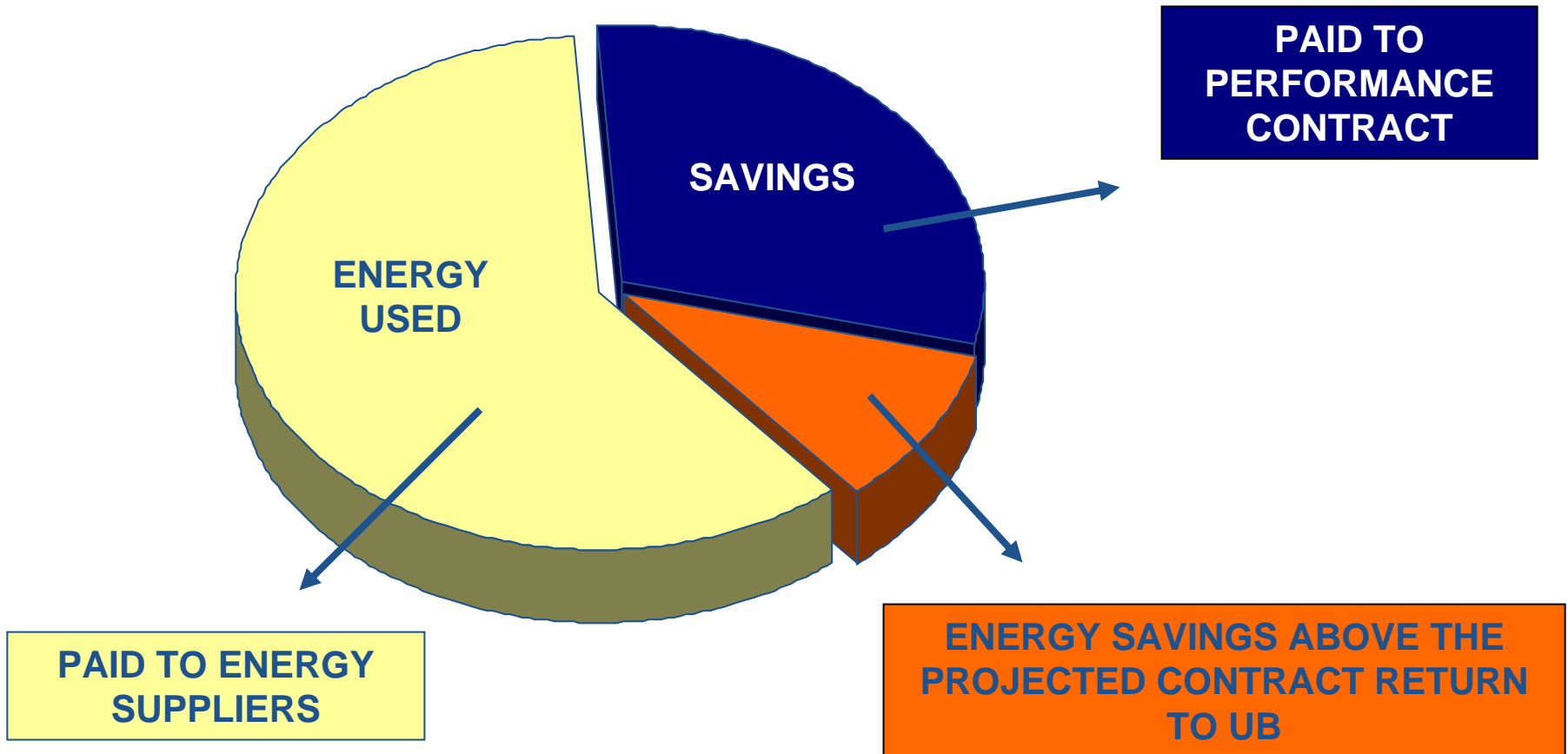


Current Facilities and Equipment





Savings Which Exceed the Contract Cost Go Directly to UB





Opportunities to Save

Vendor and Technology Neutral Solutions to:

- HVAC/Mechanical
 - Chillers and boilers
 - Air handling units
 - Cooling towers
- Lighting
- Water Conservation
- Distribution and Piping
- Backup Generation
- Metering, sub-metering
- EMCS – add control points
 - Setbacks, shutdowns
 - Temperature resets
 - Enthalpy economizers
 - CO₂ sensors
 - Remote monitoring, alarming
- Renewable Projects
 - Geothermal
 - Photovoltaic
 - Landfill gas to energy



Capital Project vs. Performance Contract

- **Capital Project**

- Energy Savings are not guaranteed
- Limited staff or lack of expertise may put project performance at risk
- Operations and maintenance budgets are usually under funded, resulting in wasted energy
- Guarantees of comfort and operating standards are not usually offered by equipment vendors
- Incremental project implementation misses savings design opportunities
- High staff costs due to a piecemeal approach to bidding and managing each project separately
- Multiple contracts with multiple vendors can result in conflicting project requirements

- **Performance Contract**

- Long-term energy savings are guaranteed by Pepco Energy
- provides ongoing technical expertise to insure project performance
- Utility bill savings finance operations and maintenance required to maintain project performance
- Performance contracts typically contain explicit comfort and operating standards
- Comprehensive project implementation maximizes savings design opportunities
- Lower staff cost and quicker completion of a comprehensive project
- One contract with single point accountability for project performance.



Salisbury University

- 15 Year Contract to provide Energy Conservation Measures at 45 buildings throughout campus
 - New Central Chiller Plant
 - High Efficiency Lighting
 - Upgrades to Plumbing Fixtures
 - Building Envelope Improvements

Over \$5M in Guaranteed Savings

- Equivalent Energy needed to power 1600 homes will be saved annually



Salisbury
UNIVERSITY





Baltimore City Public Schools

- **\$27M in Guaranteed Energy Cost Savings over 15 year term**
- **32 Schools being Upgraded**
 - Lighting
 - Water Conservation
 - Replacement of Heating and Cooling
 - Energy Management & Controls
 - New Windows
- **Pepco Energy to also Maintain Installed Equipment for Contract Term**





National Institute of Health

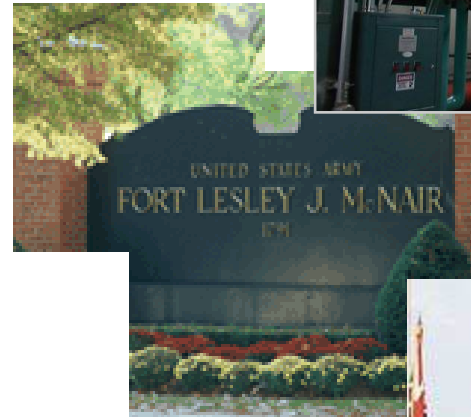
- \$38 million Cogeneration Project
- \$55 million of Cost Savings Over 15 Years
- 75 Buildings – Over 300-acres
- 23-megawatt Gas-fired Cogeneration Plant and Substation
 - Cut Energy Costs by \$55 million Over 15 Years
 - Provides 180,000 pph of Dry, Saturated Steam
 - SCADA Controls System
- Own, Operate, and Maintain the Facility





Military District of Washington

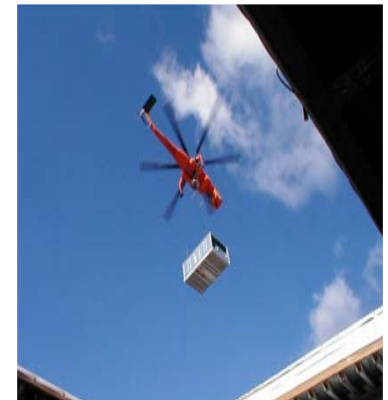
- **\$70 Million Investment – 5 Bases**
- **Largest ESPC ever awarded by the Federal Government**
- **Fort Belvoir, Fort Myer, Fort McNair, Fort Meade, & Fort AP Hill**
- **\$215 million of Cost Savings Over 19 Years**
- **688 Buildings – over 11 million square feet**
- **Over 100,000 Light Fixtures**
- **2-New Central Chiller Plants**
- **1-Central Steam Plant**
- **Over 700 Cooling and Heating Units**
- **Water Conservation**
- **167 Geothermal Heat Pumps**
- **Operations and Maintenance for 19 Years**





Washington, DC Convention Center

- **\$19 Million Investment**
- **20 Year Contract to Deliver Chilled Water and Hot Water**
- **2.3 Million Square Foot State-of-the-Art Facility**
- **Designed and Constructed Central Plant with 50mmBtu/hr of Hot Water and 10,500 tons of Chilled Water Capacity**
- **6-Duplex Electric Chillers**
- **8-Cooling Towers - each 1,225 tons**
- **2 Hot-Water Boilers – each 25 mmBtu/hr with Dual Fuel Capabilities**
- **4-Diesel Generators – each 1,000 Kw**





Contact

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