Applying the ESCO Model to Green Stormwater Infrastructure in Philadelphia

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What is an ESCO?

- An Energy Service Company (ESCO) is defined as:
  “…a business that develops, installs, and arranges financing for projects designed to improve the energy efficiency and maintenance costs for facilities over a seven to twenty year time period.”

- Use performance-based contracting

- A Stormwater Service Company (SSCO) would be similar to ESCO but for stormwater and GSI

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1. National Association of Energy Service Companies (NAESCO)
What is the Problem?

- Stormwater Runoff
- Combined Sewer Overflows
Addressing CSOs in Philadelphia

- Green City, Clean Waters
- Uses a Green Stormwater Infrastructure (GSI) Approach
- What is GSI?
Unique Challenge of CSO Plan

- **Scale of Implementation**
  - 34% to “greened acres”
  - What is a greened acre?
  - Amounts to 9,540 greened acres!
- **Over half of greened acres will come from private property**
Stormwater Management Driver for Private Property

- New Stormwater Billing Structure
  - Stormwater management services (SWMS) charge
  - Charge based on size and imperviousness of property
  - Some non-residential properties seeing significant increases (+$39,000/month)

- Stormwater Credits Program available
  - Offers opportunity to apply ESCO model to GSI
SSCO Parallel to ESCO

- Comprehensive Services (Similar to ESCO)
  - Planning
  - Design
  - Installation
  - Monitoring
  - Maintenance
  - Financing
SSCO Scenario

- Commercial Property
- $226,000 Capital Investment
- $1,850 Monthly Stormwater Bill Reduction
- 10-Year Break Even Point
- 15-Year Pay Back Period at 7% APR
  - Greater profit for SSCO depending on source of their funding
Closing

- Stormwater/CSOs as our problem
- Green City, Clean Waters and GSI as our approach in Philadelphia
- Scale of implementation and private property participation as unique challenges
- Stormwater billing and credit programs as drivers for private participation
- SSCOs as one solution
- SSCOs appear feasible