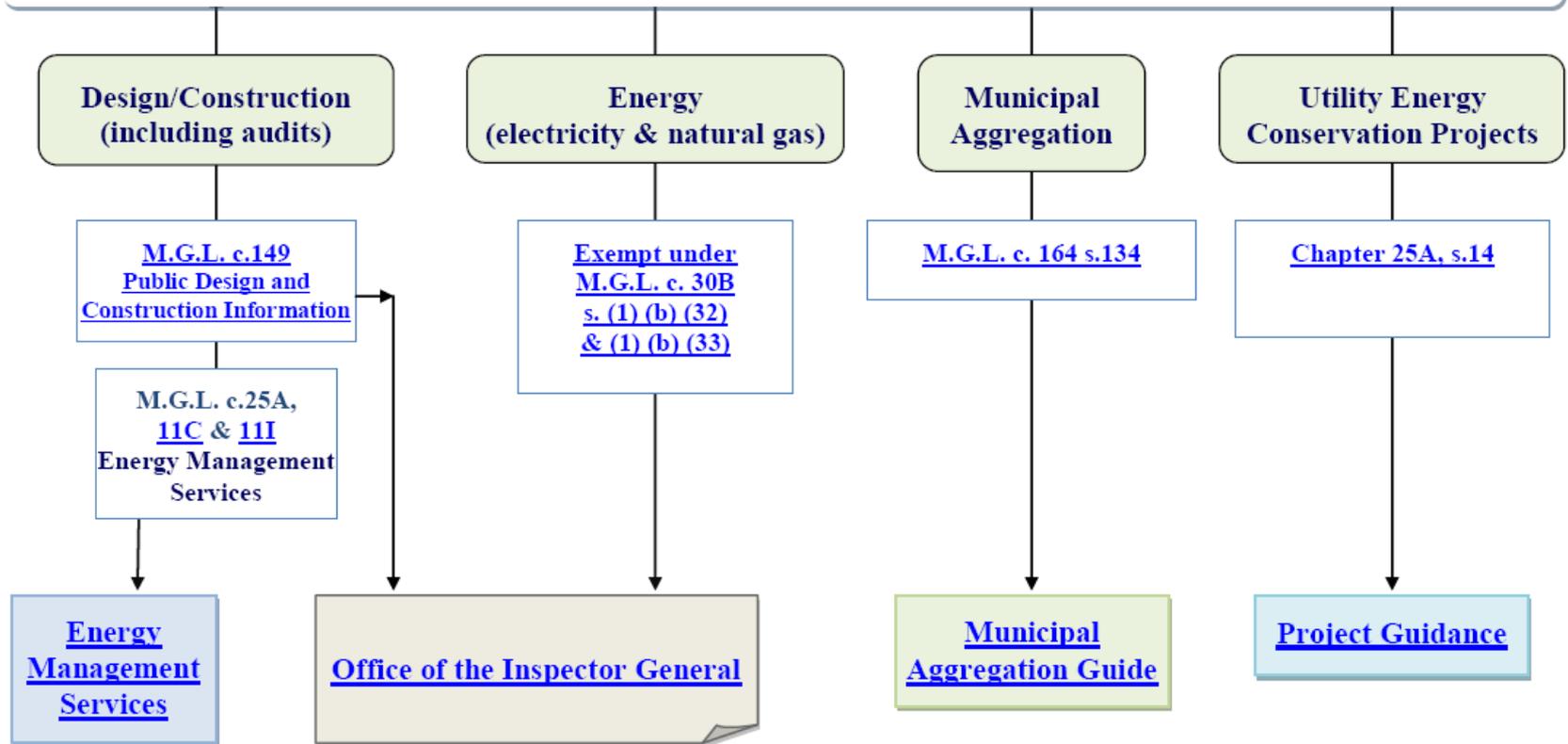




# Energy Management Services Basics

Eileen McHugh  
Municipal Energy Coordinator  
[eileen.mchugh@state.ma.us](mailto:eileen.mchugh@state.ma.us)

# Applicable Laws for Energy and Energy-Related Contracts in Municipalities



This chart provides relevant Massachusetts General Laws (M.G.L.) for energy contracts. Please contact Eileen McHugh at 617-626-7305 for more information.



# Energy Management Services (EMS)

EMS is a type of performance contract used to install energy efficient facility improvements, with **no** up front cost, paid for out of **guaranteed energy savings** from your **existing** operating budget.



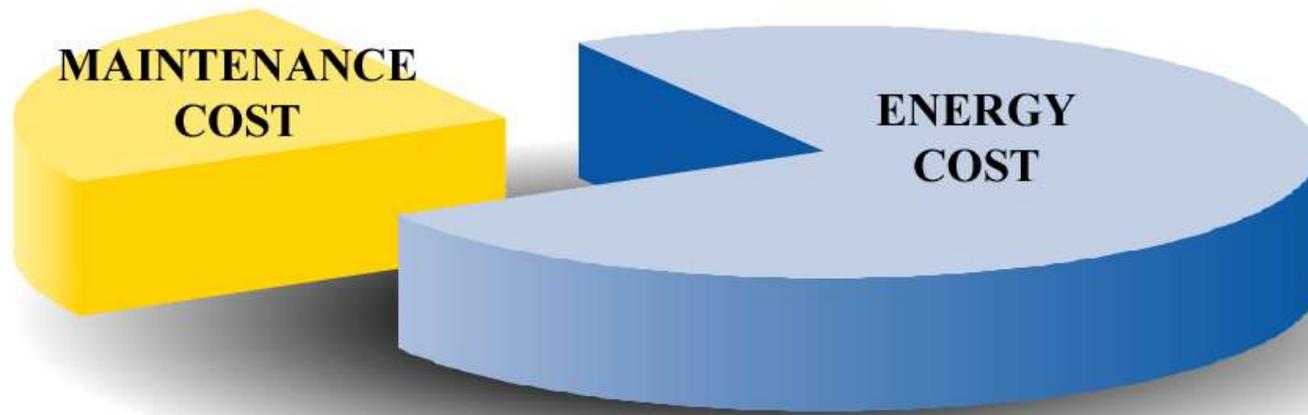
# Terms

- ESCO: Energy Services Company
- O&M: Operations and Maintenance
- M&V: Measurement and Verification
- ECM: Energy Conservation Measure
- IGA: Investment Grade Audit
- RFP/RFQ: Request for Proposal or Qualifications



# Operating Budget=\$1m

**Before Improvements**

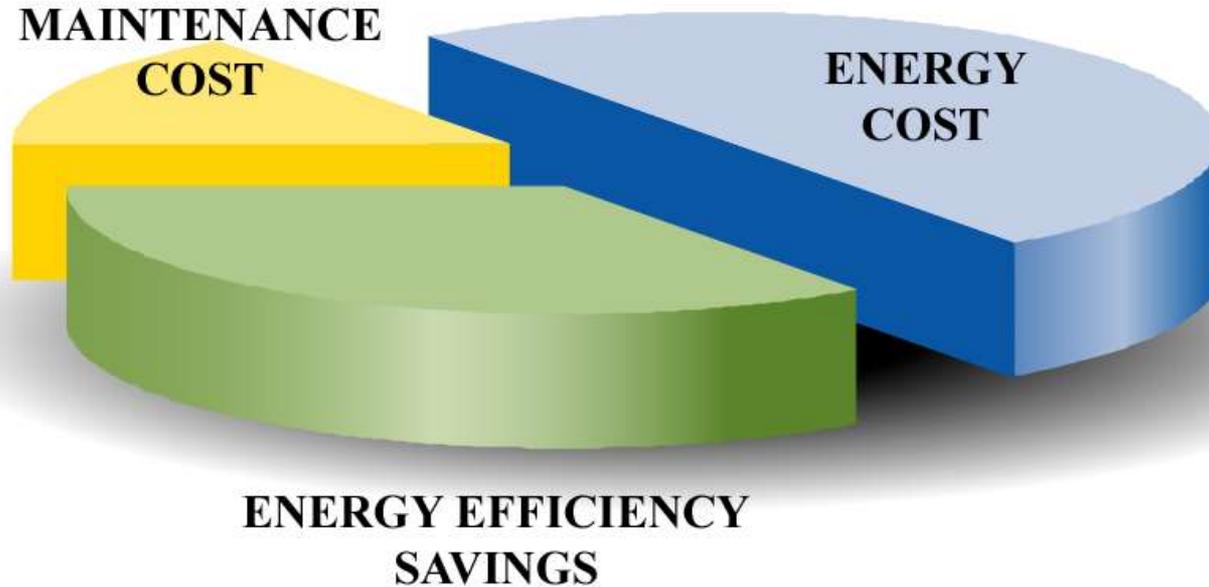


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# Operating Budget=\$1m

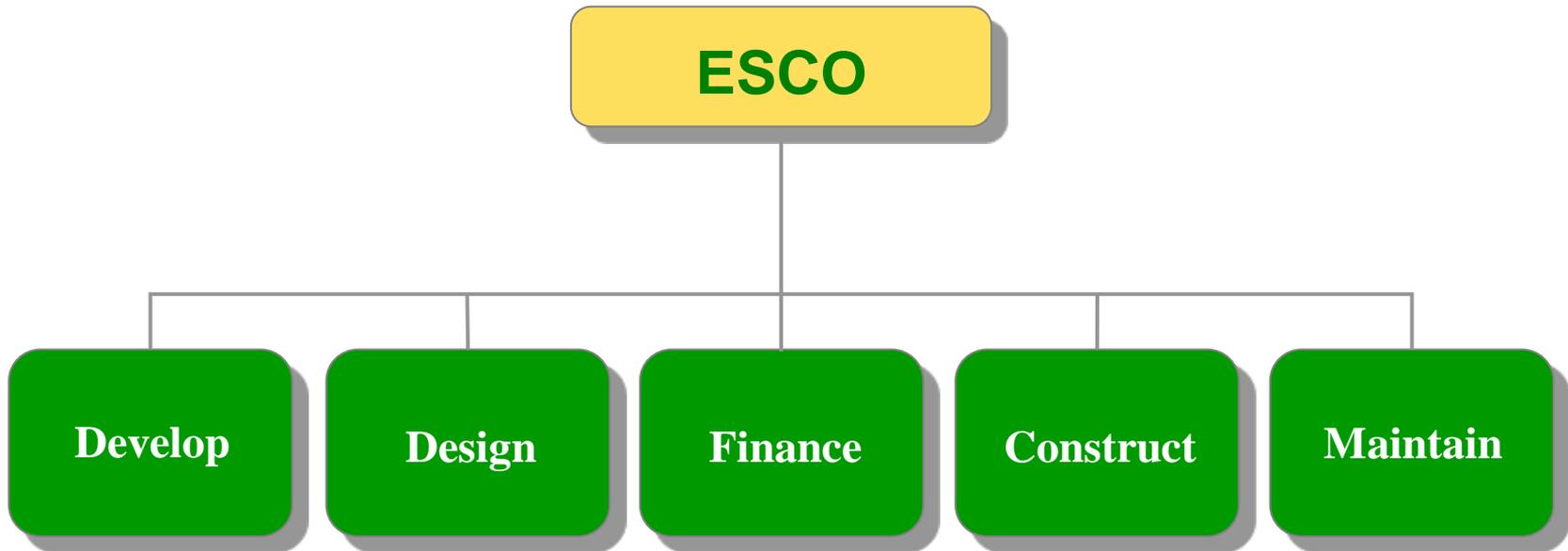
**After Improvements**



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# Energy Services Company



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# Massachusetts

- Enabling Statute: c 25A, §11C and §11I - establishes bid process
- Allows for the installation of energy and water saving equipment and renewables
- Requires the ESCO to provide a performance-based guarantee
- ESCO must have DCAM certification and update statement
- Contract term up to 20 years
- Must fulfill filing requirements with DOER



# Procurement Process

- May use either sections; 11C (RFP) or 11I (RFQ)
- Contact DOER first
- Use DOER model documents
- Information on DOER web site



# Procurement Process

- Savings guarantees are mandatory
- Costs must be reasonable and competitive
- Savings must be reported to DOER annually, including excess and shortfall



# Energy Baseline

- Two to three years of energy usage
- Include all energy types
- Building description
- Include square feet, type, and occupancy



# Core Components

- Technical
- Financial
- Contractual



# Technical

- Lighting
- Lighting controls
- Motors replacement
- Energy management system installation and optimization
- Variable frequency drives
- Hot water reset
- Control valves for boilers
- Water conservation
- Plug load controls (including PCs)
- Boiler replacement
- Green/renewable technologies



# Financial

- Where does the money come from?
- Existing budget neutral
- Energy budget
- Maintenance
- Capital improvement
- Rebates and incentives
- Municipal Lease or Other



# Contractual

- How are you buying this?
- How do we measure success?
- What are the details of the guarantee?
- When do you start to pay?
- What happens if....?
  - Hotter/Colder
  - Energy prices change
  - Excess savings/shortfall
  - Eliminate buildings
  - Schedule changes



# Things You Should Know

- Savings carryover
- Savings shortfall
- Excess savings
- Baseline
- Measurement & verification — Federal Energy Management Measurement and Verification Guidelines



# Examples

## Belmont

- Noresco, 2005
- \$1.7m
- 10 year contract
- Annual savings \$200,000+



# Examples

## Somerville

- Honeywell, 2007
- \$7.8m
- 20 year contract
- Annual savings \$500,000



# Examples

## Springfield

- Siemens, 2006
- \$15m
- 20 year contract
- Annual savings \$1.2m with \$600,000 in utility rebates



# EMS Web Page

- EMS Guide
- Model RFP, RFQ, & Contract
- Best Practices
- Links
- Case Studies



# Contact

***Eileen McHugh***

***Department of Energy Resources***

***eileen.mchugh@state.ma.us***

***(617) 626-7305***

***www.mass.gov/doer***

***“Energy Management Services”***



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