

Sustainable Jersey 2013: Small Grants Program

**SCEC / Hillsborough Township
Framework for Establishing a Somerset County
Energy Savings Incentive Program (ESIP)**

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Summary:

To the degree possible while preserving participant confidentiality and subject to the availability of information, determine the savings accomplished by the originally audited facilities funded by the SCEC and how this might inform future efforts, such as a county-wide ESIP initiative, to accomplish even greater savings.

OR

What has been accomplished, what barriers remain, and how might they be overcome?

Available Data Sources

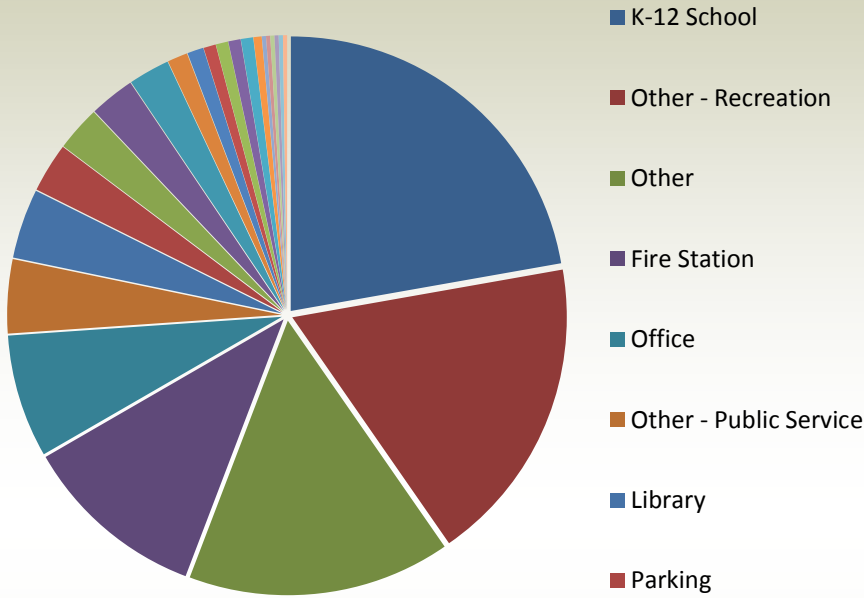
Reconciled List of Somerset Local Government and Public School facilities between four primary sources of information;

- (1) NJ Treasury Database (Public)**
- (2) NJBPU Clean Energy Program (Private)**
- (3) Energy Star Portfolio Manager Account (Private)**
- (4) Somerset GIS Database (Public)**

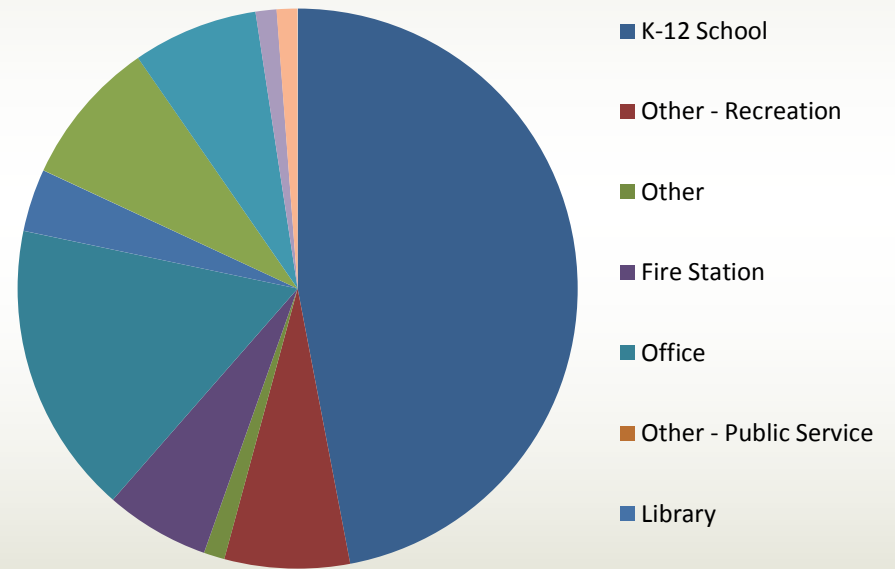
The combination of publically available and private data sources required that a “firewall” be established between the sources of data so that no individually attributable information will be disclosed without prior approval. CBK has aggregated this data for the purpose of categorizing the county wide effort utilizing a coding system that may easily be eliminated and upon acceptance of the locale entities to participate in this study.

Somerset County Energy Council: ESIP Feasibility Study

PARTICIPATION



Facilities by Building Use, All Somerset County LG-PS [412]

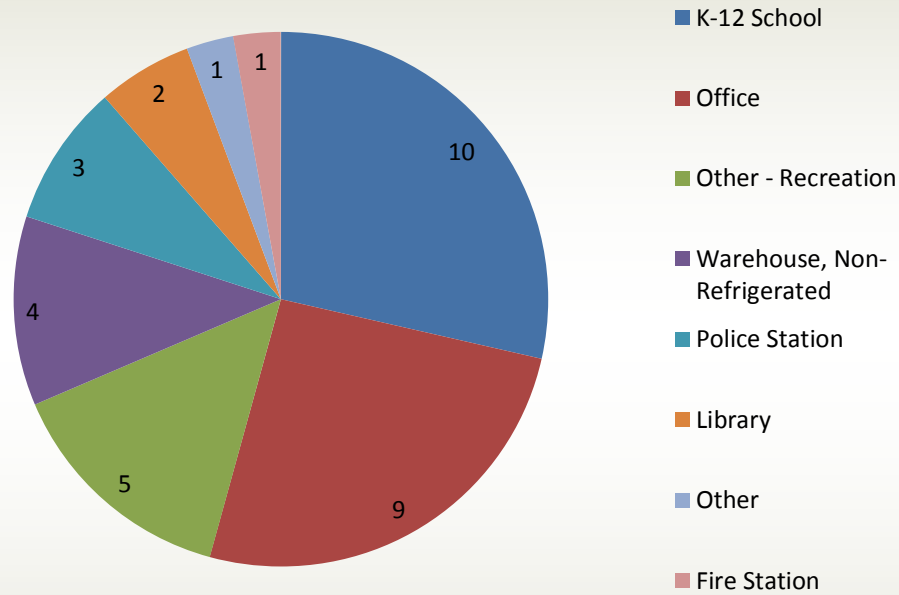


Facilities by Building Use, Original SCEAP Participants [84]

Somerset County Energy Council: ESIP Feasibility Study

PARTICIPATION

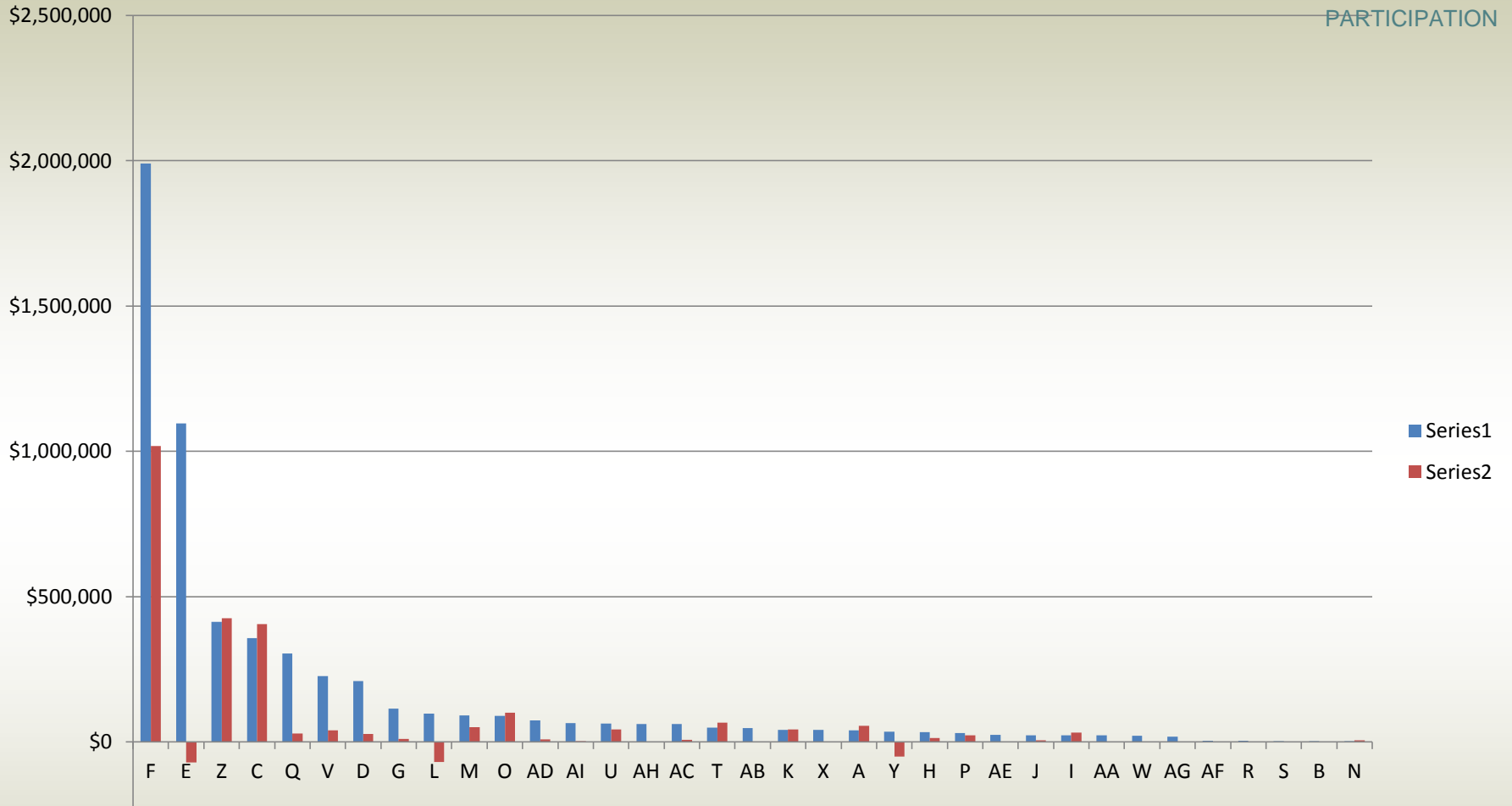
35 of the 55 Applicants Successfully Completed the CEP Program
Amongst the Original 84 SCEAP Facilities



- ✓ **35** of the 55 applicants successfully completed the CEP program
- ✓ In excess of **\$1 million dollars** in CEP incentives provided to these facilities
- ✓ Annual deemed estimated savings for these same facilities are nearly **half a million annually**
- ✓ Approximately **\$8 million dollars** in total over the anticipated life of the energy conservation measures

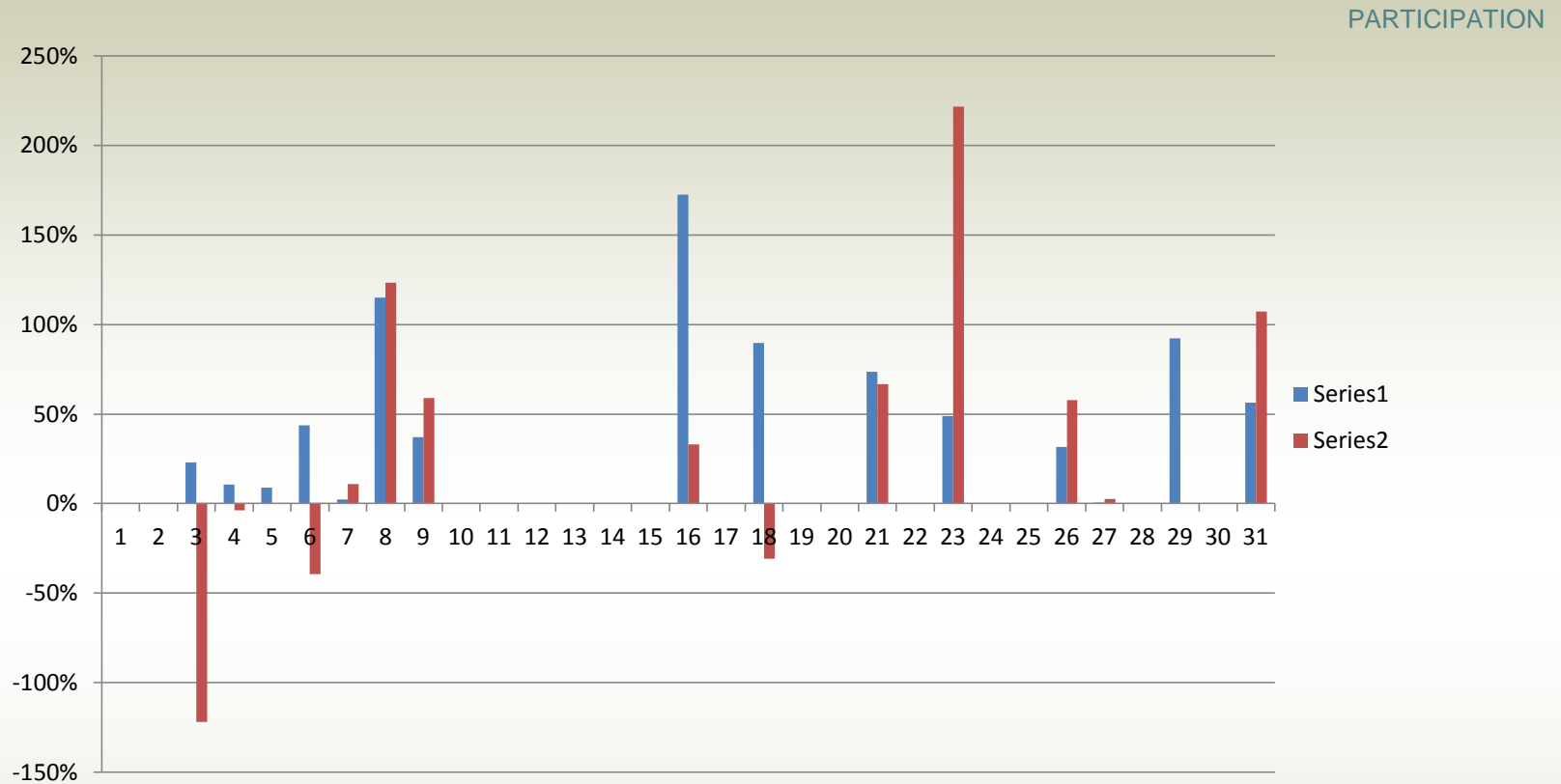
Number of Facilities by Building Use to Complete CEP Program

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Estimated Potential Life Savings for Both Electric and Natural Gas amongst the Originally SCEAP Facilities to Have Successfully Participated in the CEP Programs
 Series 1 - Electric, Series 2 - Natural Gas

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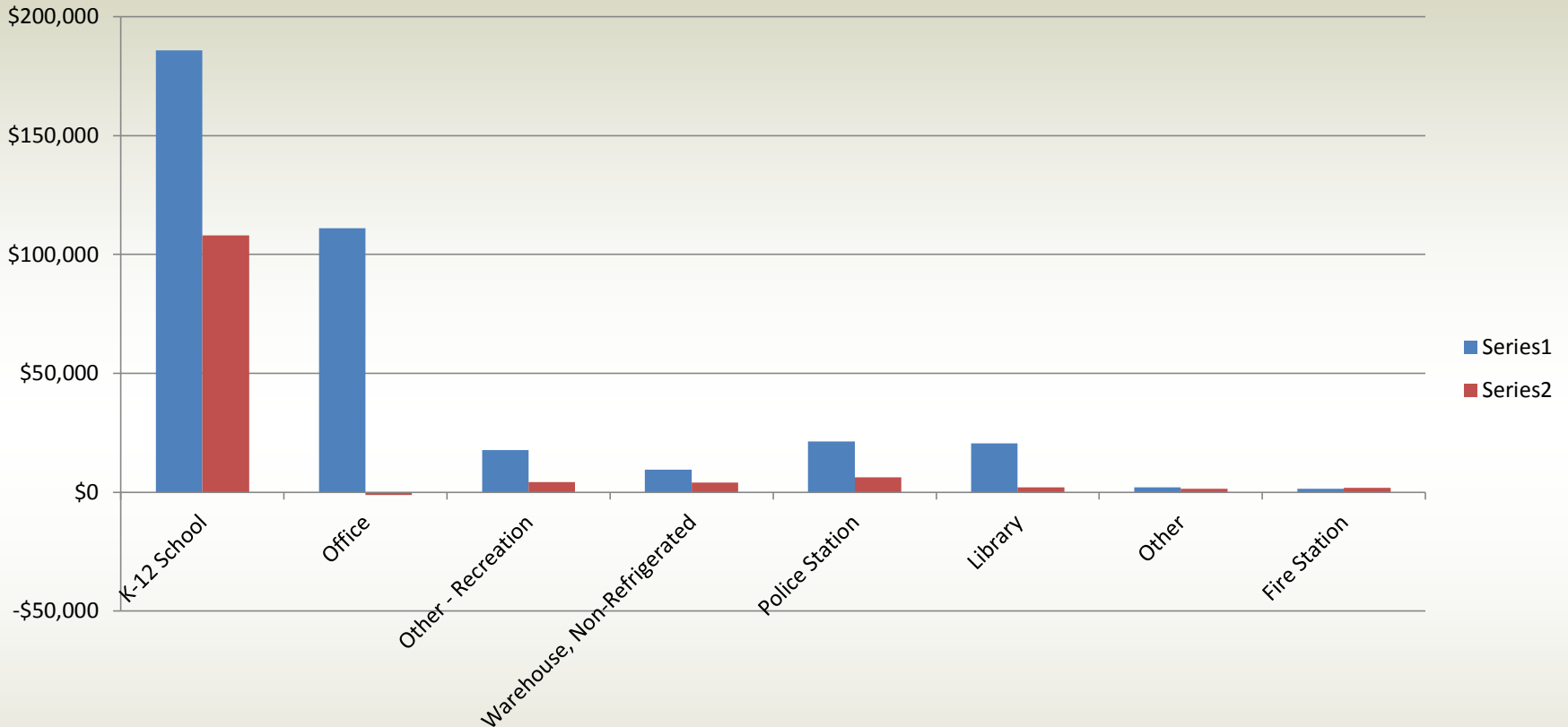


Percentage of Savings Accomplished by Organizations

Series 1 - Electric, Series 2 - Natural Gas

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DIVERSITY BY TYPE

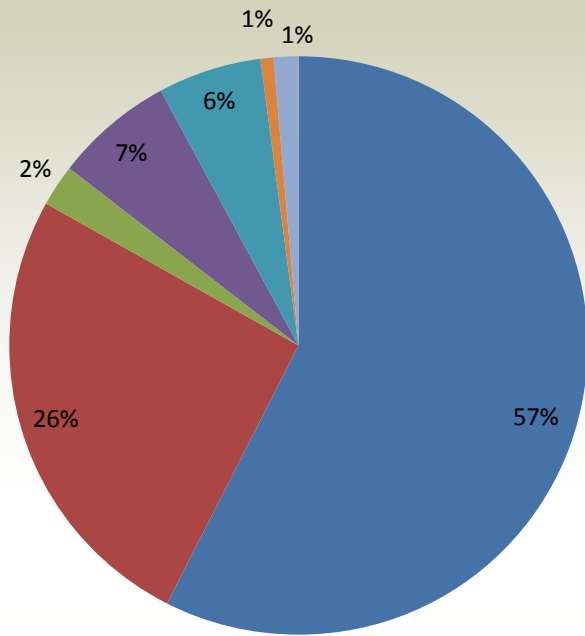


Estimated Average Annual Financial Savings by Building Use by Facility Use

Series 1 - Electric, Series 2 - Natural Gas

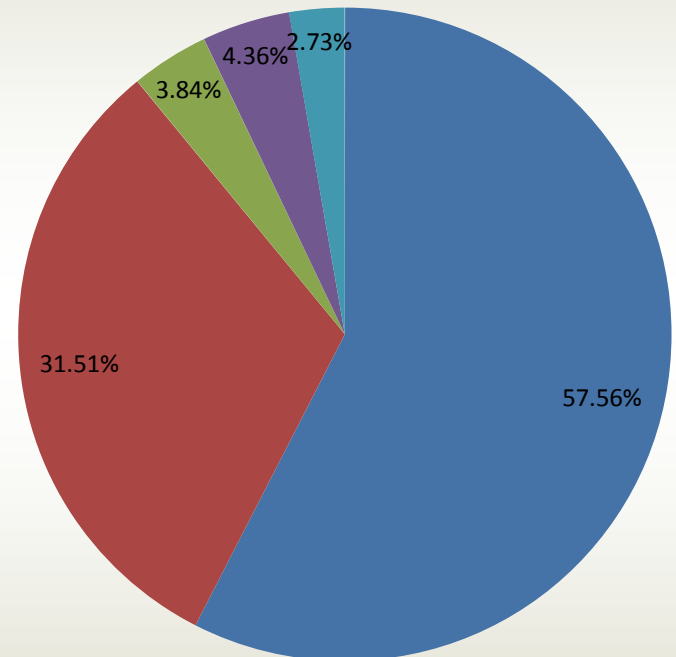
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DIVERSITY BY ECM



Types of Measures Implemented by All of Somerset County (%)

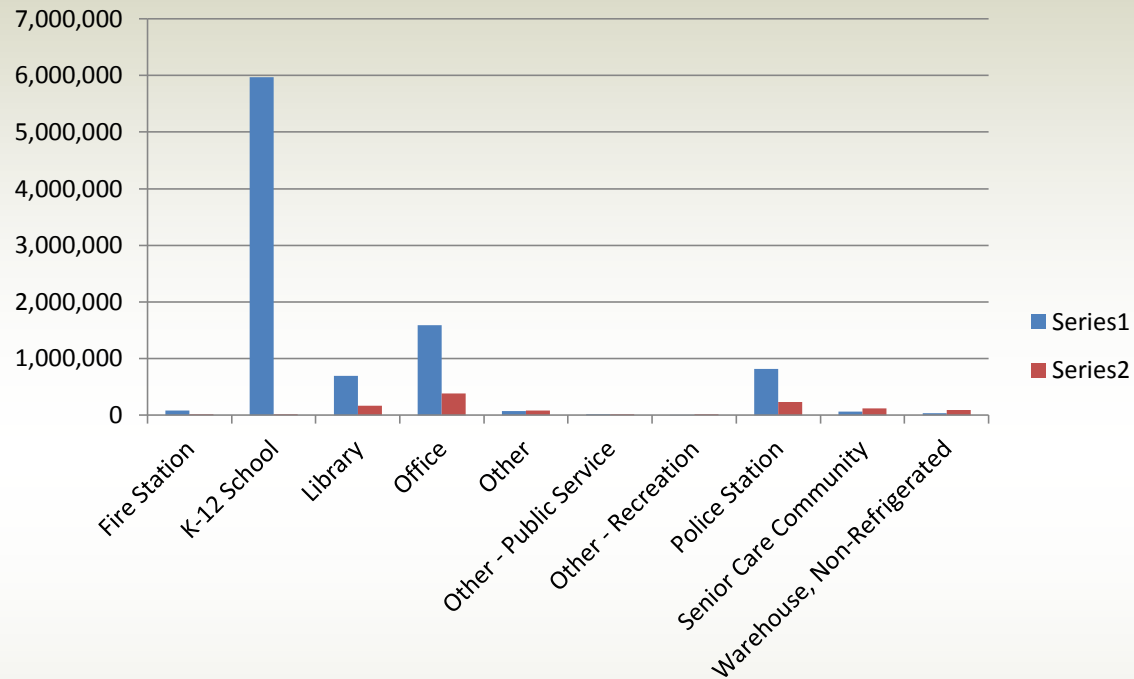
- Lighting [CEP]
- Lighting Controls [CEP]
- HVAC Occupancy / Time Controls [NJIT]
- HVAC Measures [CEP]
- HVAC - Equipment Replacement [NJIT]
- Refrigeration [CEP]
- Water Control [CEP]
- Motors [CEP]



Types of Measures Implemented by Originally Audited Facilities (%)

Potential Savings (Breadth versus Depth)

POTENTIAL SAVINGS



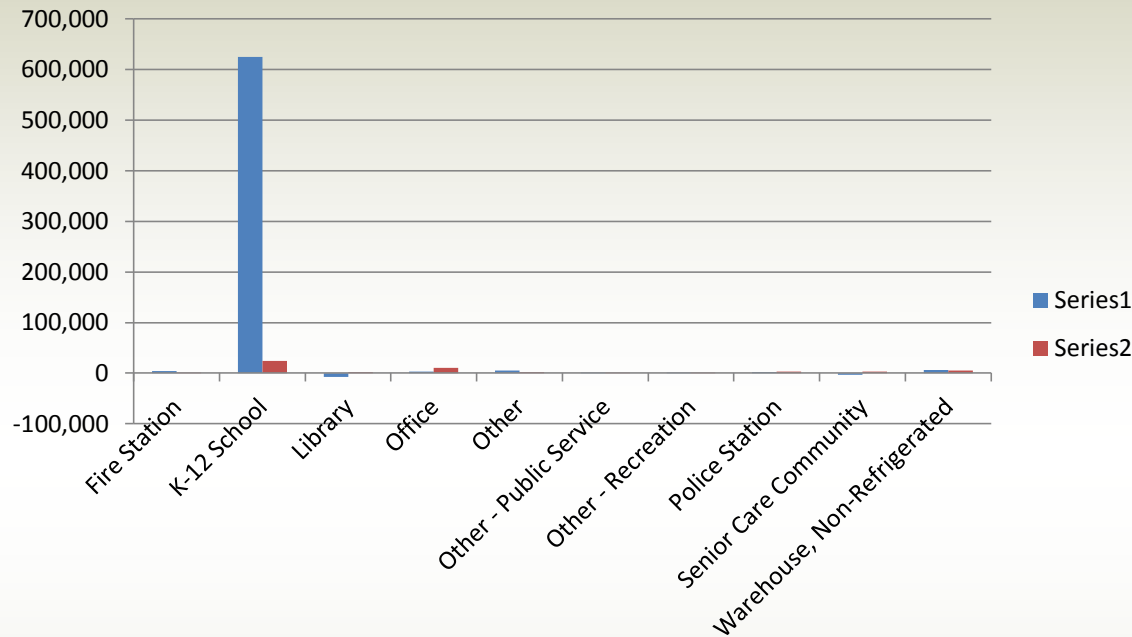
Annual Electrical Estimated / Deemed Savings by Use Type (kWh)

Series 1 - Estimated, Series 2 - Deemed

- ✓ Savings on a square footage basis vary by building use (Depth)
- ✓ Aggregate savings primarily influenced by the square footage (Breadth)

Potential Savings (Breadth versus Depth)

POTENTIAL SAVINGS



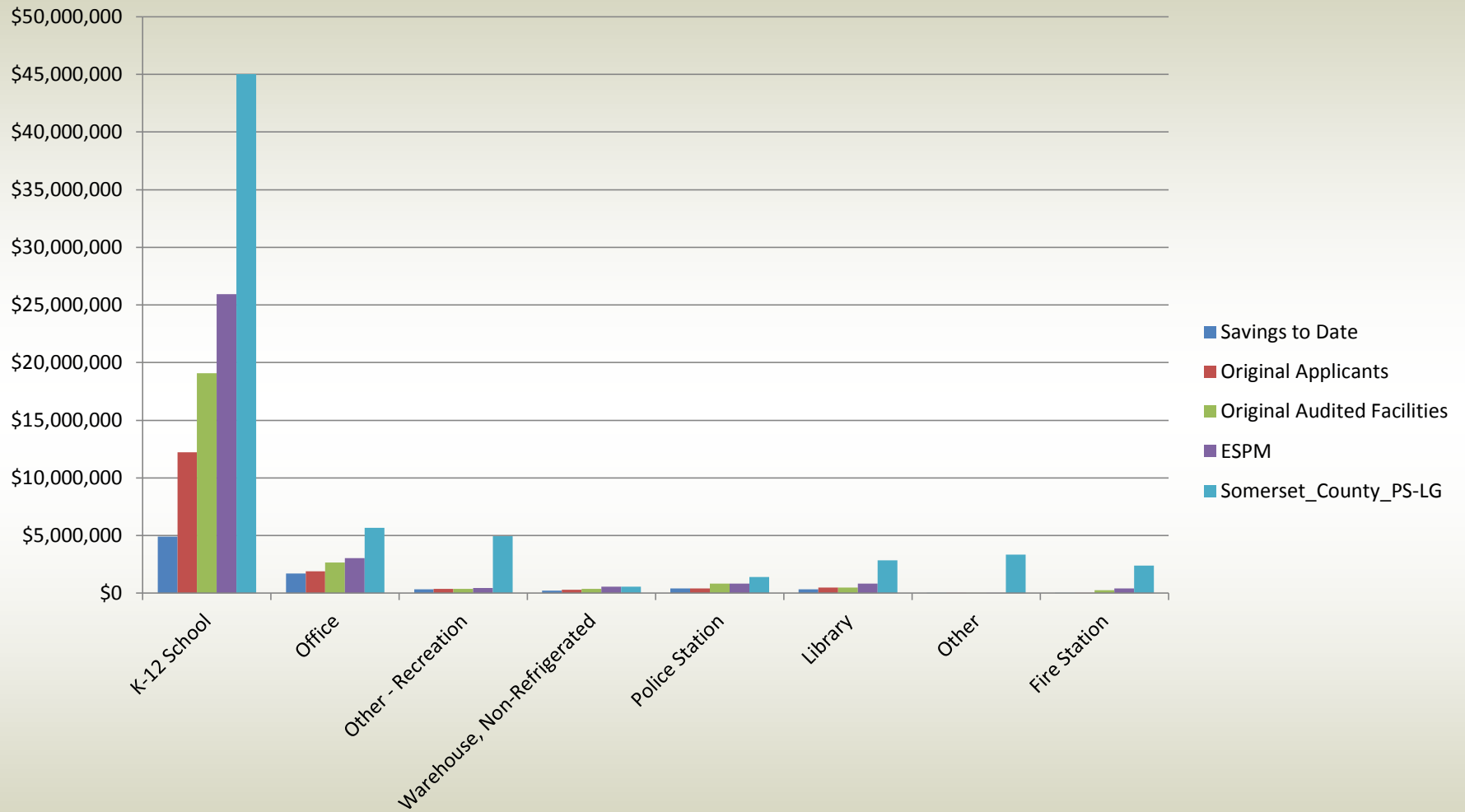
Annual Natural Gas Estimated / Deemed Savings by Use Type (Therm)

Series 1 - Estimated, Series 2 - Deemed

- ✓ Savings on a square footage basis vary by building use (Depth)
- ✓ Aggregate savings primarily influenced by the square footage (Breadth)

Somerset County Energy Council: ESIP Feasibility Study

STRATEGY



Conclusions:

- ✓ Approximately a third of the facilities that were audited ultimately successfully implemented ECM through the CEP program.
- ✓ Successful implementation is strongly correlated to relatively few organizations. This may be attributable to several factors that will require further investigation such as the size and sophistication of the organization, organizational values, perceived risk, financial ability, and/or the specific type of program they had participated in.
- ✓ There is seemingly little correlation between the type of measures recommended by the audit and those implemented through the CEP program.
- ✓ The type of measures ultimately implemented appear to be those that are least disruptive to the organizations operations
- ✓ The specific ECM selected are largely dependent upon the building use type.

Recommendations:

- ✓ This effort and associated work by the Council is anticipated to increase awareness of the potential savings achievable and encourage greater participation in the CEP or IOU programs.
- ✓ A jointly administered ESIP program is anticipated to aggregate significant demand that will likely accomplish economies of scale and potentially lower funding costs while serving to address organizations with relatively no capacity to pursue such opportunities on their own.
- ✓ Consideration of multiple proposals premised on building use type may serve to promote competition by aggregating similar ECM and establishing a cohort of like minded customers with similar objectives and concerns.
- ✓ Alternate procurement methods such as IOU and P4P programs might serve as an alternative to increase the number of participants not solely the percentage of savings accomplished, breadth versus depth.

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