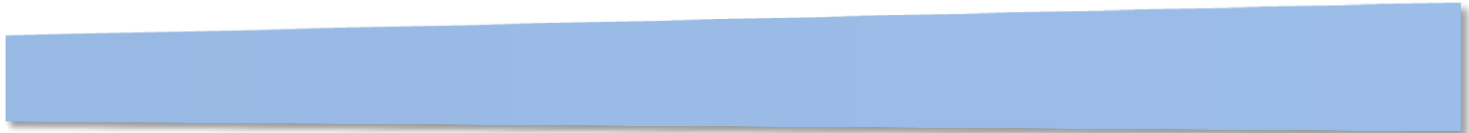


Minnesota's Guaranteed Energy Savings Program (GESP)



Agenda

- **Division of Energy Resources Role**
- **Energy Savings Performance Contracting**
- **The Power of Bundling Energy Conservation Measures**
- **Minnesota's new Guaranteed Energy Savings Program**
- **Project Development Process**

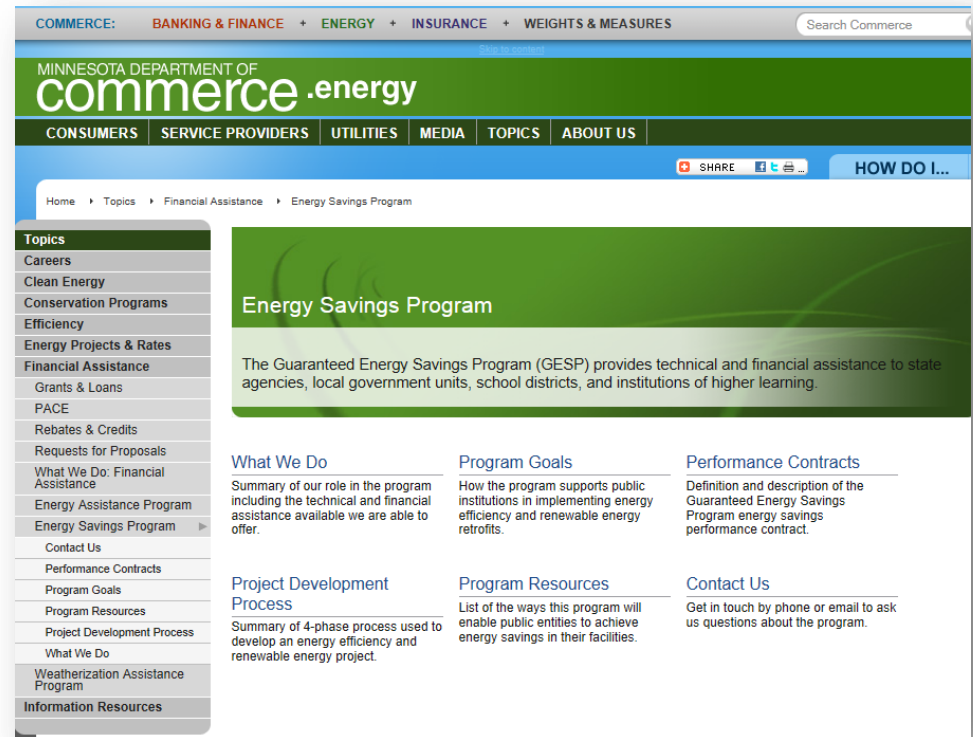
Department of Commerce Division of Energy Resources

Energy Savings Programs



Peter Berger

Eric Rehm



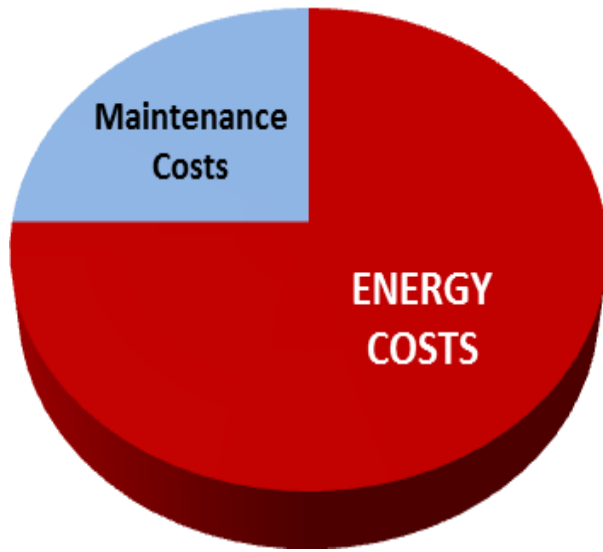
www.energy.mn.gov

What we do ...

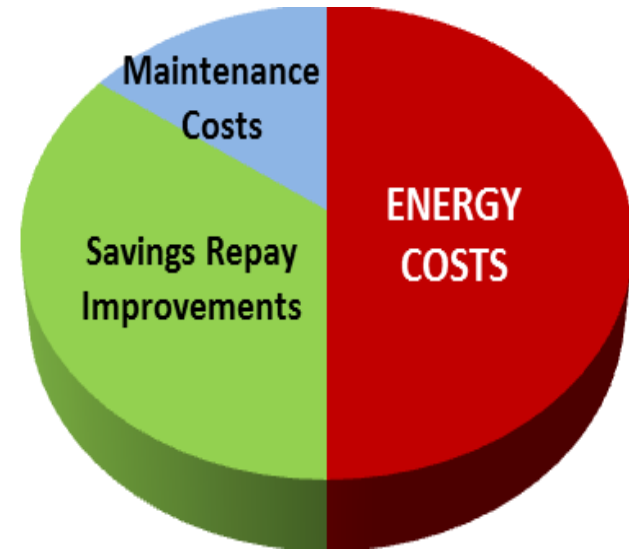
- **Program Development and Administration**
 - Pre-qualify ESCOs (contractors)
 - Master Contract and Procurement Documents
- **Opportunity Assessment**
 - B3 Benchmarking Data
 - Needs, Issues and Goals
- **Technical Assistance**
 - Project Development Assistance
 - Project Implementation Oversight
 - Annual Project Performance Evaluation

What is Energy Savings Performance Contracting?

Before Improvements



After Improvements



“The use of **guaranteed savings** gained from the maintenance, operations and utilities budgets, as **capital to make needed upgrades** to your building environmental systems, that is financed over a specified period of time.”

U.S. Department of Energy

Conventional Wisdom

- Benchmark your buildings
- Identify the worst performers
- First implement No-Cost Energy Conservation Measures (ECMs)
- Next use available funds to implement Low-Cost ECMs
- Continue up the payback ladder until available funds are gone
- Move on to the next worst performing building when additional funds become available

The Power of Bundling Scientific Reasoning

Oak Ridge National Laboratory

Mixing Appropriations and Private Financing to Meet Federal Energy Management Goals

June 2012

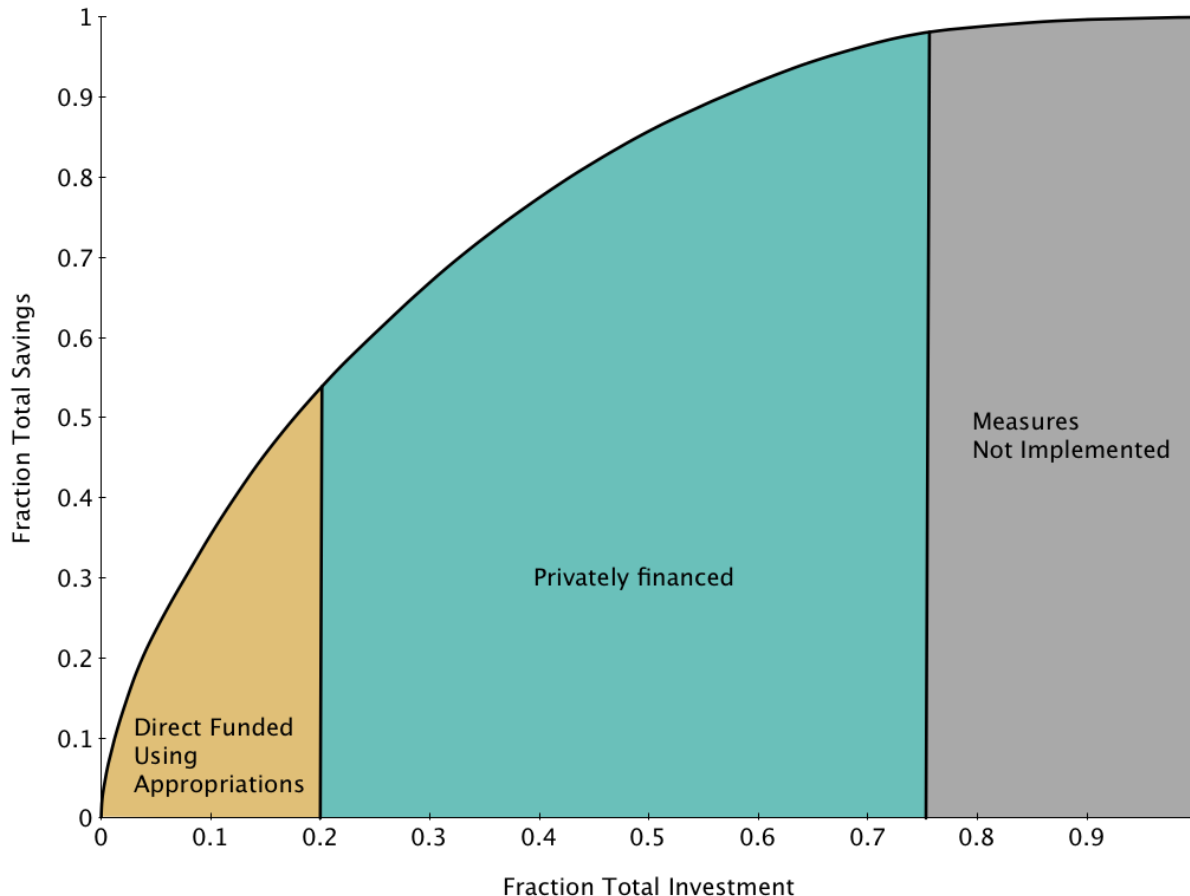
Prepared by: John Shonder

Source:

http://www.ornl.gov/sci/ees/etsd/btric/publications/ORNL%20TM%202012_235.pdf

Appropriations Priority

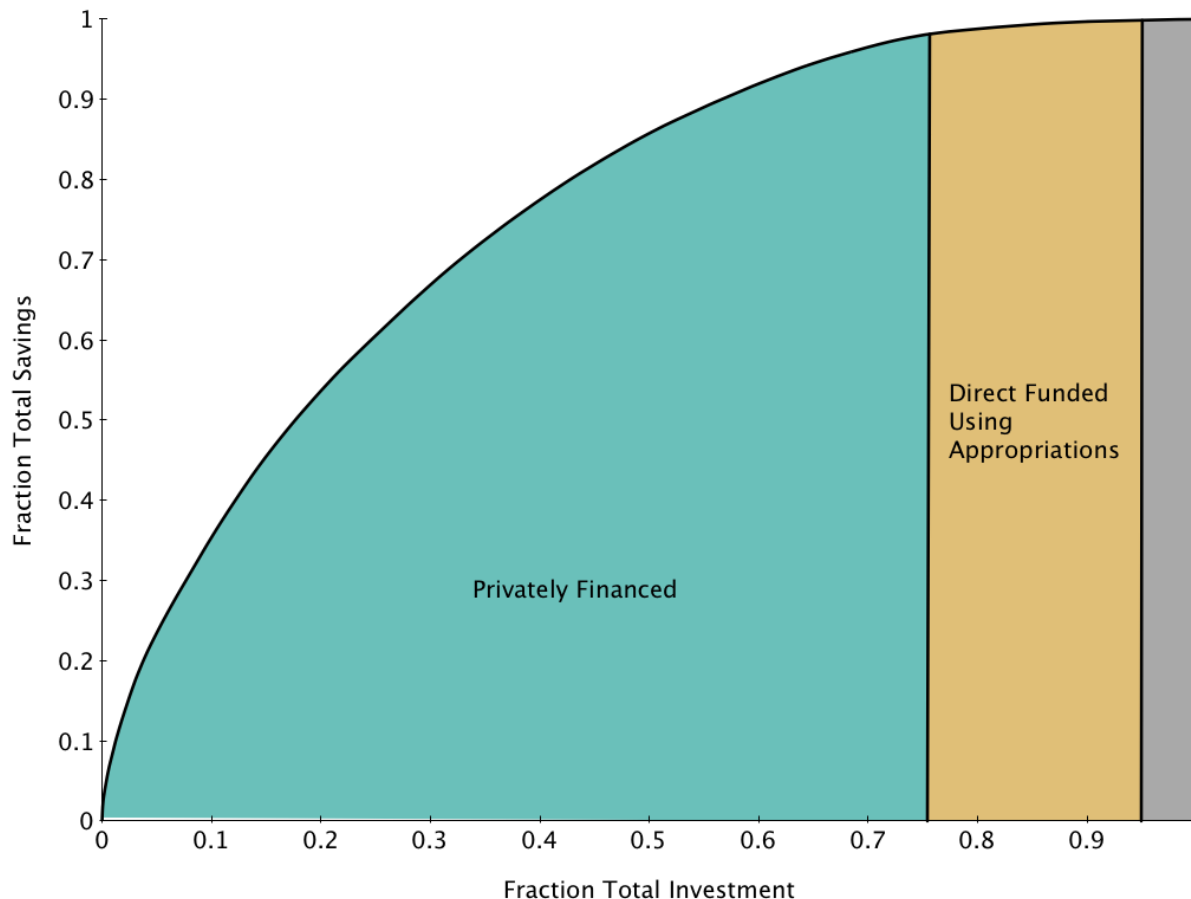
- First, appropriations fund shortest-payback ECMs
- Next, private financing funds as many ECMs as possible



***Only 76% of
ECMs Can Be
Implemented***

Finance Priority

- First, private financing funds as many ECMs as possible
- Next, use appropriations on long payback ECMs



***95% of ECMs
Can Be
Implemented!***

ORNL Study Conclusions

Best Financing Strategy

- Use private financing to fund as many ECMs as possible beginning with the shortest-payback ECMs
- Use available appropriations as a one-time buy-down or to fund longer-payback ECMs that cannot be included in the project

“Using appropriations to fund short payback Energy Conservation Measures is like eating your seed corn.”

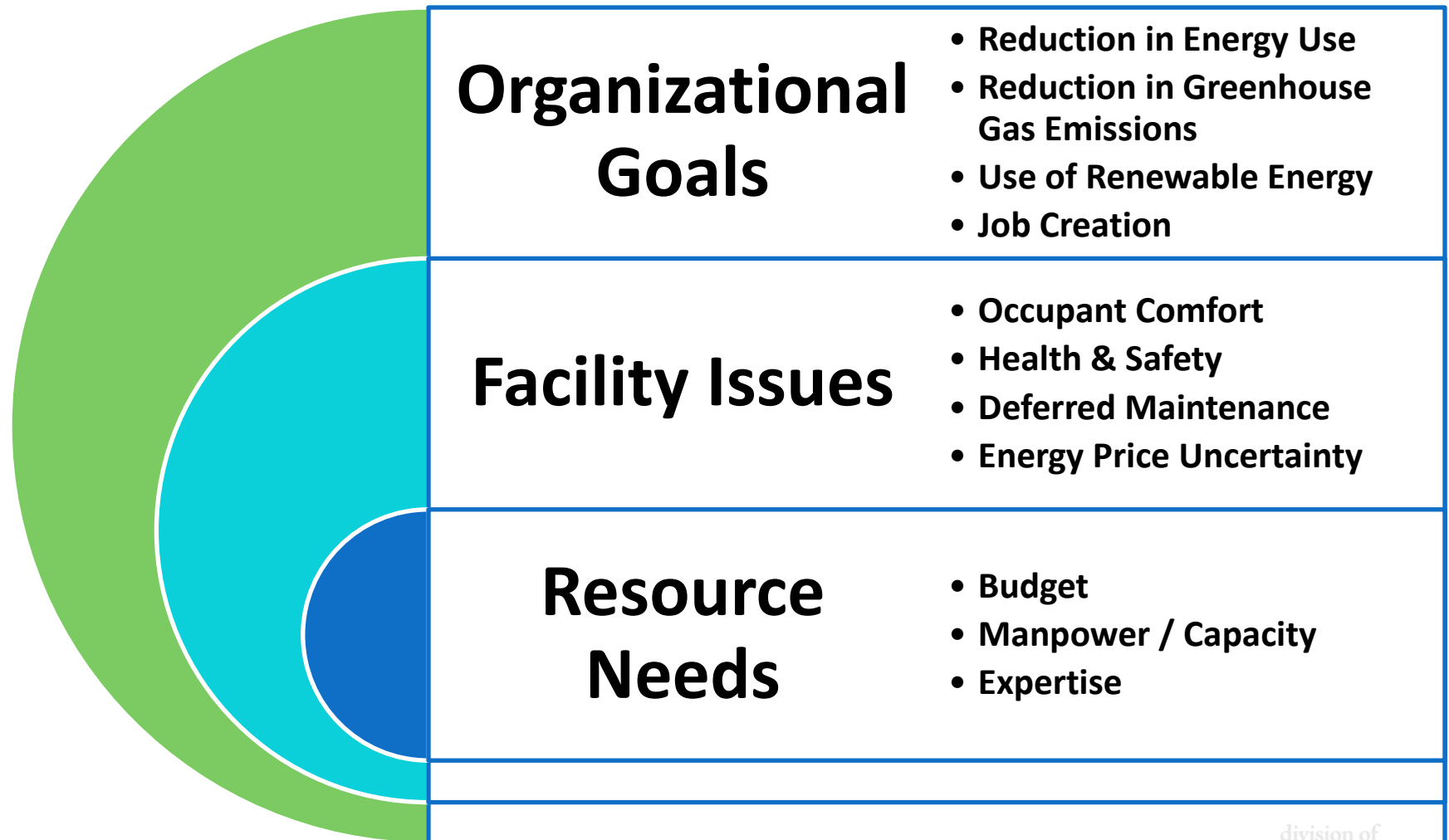
John Shonder
Oak Ridge National Laboratory

The Power of Bundling ECMs

Guaranteed Energy Savings Program (GESP)

- **Makes existing systems more efficient**
 - Retro-commissioning
 - System additions and enhancements
 - Operation & Maintenance improvements
- **Renews facility infrastructure by performing deep energy retrofits**
 - System re-design
 - Equipment replacement
- **Assures intended results continue to be achieved**
 - On-going savings Measurement & Verification
 - Performance Guarantee

Key Drivers of GESp



GESP is a Strategy to ...

Reduce

Energy Use

Operation &
Maintenance
Costs

Renew

Facility
Infrastructure

Occupant
Comfort, Health &
Safety

Achieve

GHG Emission
Reduction

Job Creation

Use of Renewable
Energy

Budget Neutral – No Bond Funds Required

GESP Contracting and Procurement Improvements

- Vetted Master Contract with Pre-qualified ESCO's
- Open Book Pricing, Maximum Markups and Fees, GMP
- Competitive Bidding of Trade Work and Equipment with Pre-qualified Sub's and Spec's
- Savings Guarantee requires savings be met each year of the guarantee
- Measure & Verification Guidelines
- Startup & Commissioning Guidelines
- Third-Party Review of Annual M&V Report
- State provided Technical, Financial and Contractual Assistance

Clearly Defined Project Development Process

Process Step	Activity	Typical Duration	Milestone
1 – Opportunity Assessment	Meetings with COMM to review GESP, B3 data, facility needs, issues, and goals	1 – 3 months	Joint Powers Agreement
2 – Define Project Goals	Energy Savings; GHG Emission Reduction; Renewable Portfolio; Building Public Disclosure; Job Creation	1 – 3 months	Issue Site-Specific RFP
3 – ESCO Selection	RFP evaluation and ESCO selection	1 – 3 months	Issue Work Order Contract
4 – Project Development	Perform Investment Grade Audit to develop project scope, cost, savings and funding	3 – 6 months	Issue Work Order Contract Amendment
5 – Project Implementation	Installation of Energy Conservation Measures	6 – 12 months	Certification of Final Completion and Acceptance
6 – Performance Period	Review Measurement & Verification Reports	5 – 25 years (on-going)	Annual M&V Report

Division of Energy Resources

Contacts

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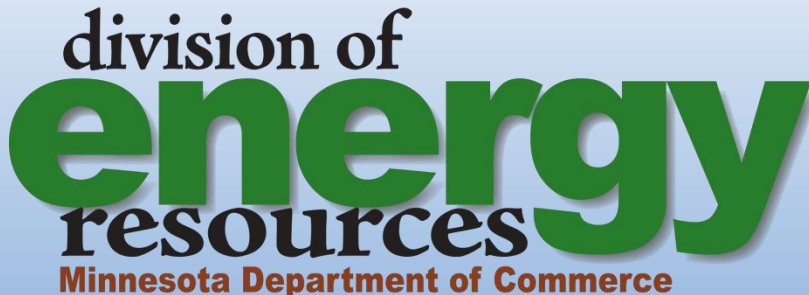
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Website:

[http://mn.gov/commerce/energy/topics/financial/
Energy-Savings-
Programs/Government/Guaranteed-Energy-
Savings-Program/Program-Resources/GESP-
Program-Master-Contract.jsp](http://mn.gov/commerce/energy/topics/financial/Energy-Savings-Programs/Government/Guaranteed-Energy-Savings-Program/Program-Resources/GESP-Program-Master-Contract.jsp)

GESP Contract Documents

Master Contract

Each of the 11 Contractors has a Master Contract with the Department of Commerce to provide Energy Savings Performance Contracting Services on an as needed basis.

Exhibit A – Contractor's Duties (see Master Contract)

Exhibit A includes a Sample Work Order Contract along with the Work Order Contract's Exhibit A and Exhibit B.

Exhibit B – Contractor's Fees (see Master Contract)

These are the maximum markups and fees included in Contractor's RFP response to pre-qualify. They differ by Contractor.

Attachment 1 – Measurement and Verification Guidelines

Attachment 2 – System Startup and Commissioning Guidelines

Attachment 3 – General Conditions of the Contract for Construction

AIA Document A201 – 2007 as modified by the Minnesota Department of Commerce

Parties to Contract

Minnesota Department of Commerce, and ESCO (Contractor)

GESP Contract Documents

Site-specific RFP

The GESP Site-Specific RFP is issued by the state agency or local governmental unit for the purpose of selecting one ESCO from the pool of eleven master contract holders, they determine is best suited to provide energy savings performance contracting services for their site. The RFP also provides for a second round of competition in which the responders' may offer lower markups, overheads and fees for this site, than those they agreed to in the master contract.

Site-Specific RFP

Site-Specific RFP template provided by the Minnesota Department of Commerce. Site-specific data is added by state agency or local governmental unit.

Attachments

Site-Specific RFP will include (i.e. illustrate) all exhibits and attachments added via the work order contract amendment.

Parties to Site-Specific RFP

State agency or local governmental unit will issue RFP to all contractors with a GESP Master Contract.

GESP Contract Documents

Work Order Contract

The Work Order Contract is issued by the state agency or local governmental unit to the selected ESCO for the purpose of conducting an Investment Grade Audit (IGA) and developing the Energy Savings Performance Contract project proposal. This Work Order enables the ESCO to perform design and engineering services that are required to provide guaranteed maximum pricing and guaranteed energy savings for the proposed Energy Conservation Measures included in their project proposal. This is also when the ESCO performs necessary pre-installation measurements and proposes their plan for the measurement and verification of savings. Assumptions agreed to in this process form the basis of the Energy Savings Performance Contract and are added as exhibits to the Work Order Contract via amendment.

Work Order Contract

Issued by state agency or local governmental unit to contractor selected from Site-specific RFP respondents, under authority of GESP Master Contract.

Exhibit A – Contractor's Duties

Exhibit A includes:

Section I: Contractor's duties for performing Investment Grade Audit and Project Proposal

Section II: Scope guidelines and requirements for Energy Savings Performance Contract Proposal

Exhibit B – Contractor's Fees

Maximum markups and fees provided by contractor in response to Site-Specific RFP. These fees can be lower, but not higher, than fees in Contractor's Master Contract.

Parties to Work Order Contract

State agency or local governmental unit and contractor.

Work Order Contract: Amendment

The amended Work Order Contract becomes the Energy Savings Performance Contract, also referred to in statute as the Guaranteed Energy Savings Agreement.

Work Order Contract, Amendment No. 1

Issued by State Agency or Local Governmental Unit to Contractor that is party to Work Order Contract.

Exhibit A – Contractor’s Duties is amended and becomes Exhibit A-1

Exhibit A-1 includes:

Section I: Contractor’s duties for performing Investment Grade Audit and Project Proposal.

Section II: Scope guidelines and requirements for Energy Savings Performance Contract proposal.

(Section I and II duties completed at time of amendment).

Amendment adds:

Section III: Facility Description is a list of facilities installation work will be performed in.

Section IV: Contractor’s Duties for ESPC, is the scope of work for installation of energy conservation measures.

Exhibit B – Contractor’s Fees is amended and becomes Exhibit B-1

Maximum markups and fees provided by contractor in response to Site-Specific RFP. These fees can be lower, but not higher, than fees in contractor’s Master Contract.

Amendment adds the total project price, detailed by energy conservation measure.

Work Order Contract: Amendment Exhibits

Exhibit C – Savings Measurement and Verification Plan

Contractor deliverable from Investment Grade Audit and Project Proposal.

Exhibit D – Savings Guarantee

Standard GESP document provided by Minnesota Department of Commerce to in Savings Measurement and Verification Plan.

Exhibit E – Equipment Installed by Contractor

Contractor deliverable from Investment Grade Audit and Project Proposal.

Exhibit F – Construction and Installation Schedule

Contractor deliverable from Investment Grade Audit and Project Proposal.

Exhibit G – System Startup and Commissioning Plan

Contractor deliverable from Investment Grade Audit and Project Proposal.

Exhibit H – Standards of Comfort

Contractor deliverable from Investment Grade Audit and Project Proposal.
Template provided by Department of Commerce.

Exhibit I – Training by Contractor

Contractor deliverable from Investment Grade Audit and Project Proposal.

Exhibit J – Project Pro Forma

Contractor deliverable from Investment Grade Audit and Project Proposal.
Template provided by Department of Commerce.

Exhibit K – Rebates, Incentives and Grants

Contractor deliverable from Investment Grade Audit and Project Proposal.

Exhibit L – Lease Purchase Agreement

Standard GESP document provided by Minnesota Department of Commerce

Exhibit M – Contractor's Measurement and Verification Services

Standard GESP document provided by Minnesota Department of Commerce
Scope and fee are Contractor deliverable from Investment Grade Audit and P
M&V Services are required to maintain the Savings Guarantee.

Exhibit N – Institution's Maintenance Responsibilities

Contractor deliverable from Investment Grade Audit and Project Proposal.

Attachment 4 – Investment Grade Audit Report

Contractor deliverable from Investment Grade Audit and Project Proposal.

Attachment 5 – Certificate of Substantial Completion and Acceptance

Template provided by the Minnesota Department of Commerce.

Attachment 6 – Certificate of Final Completion and Acceptance

Template provided by the Minnesota Department of Commerce.

