

*Timothy Unruh:*

Hello. I'm Timothy Unruh, program manager for the Department of Energy's Federal Energy Management Program. Welcome to the 2012 series of First Thursday seminars. This year FEMP is expanding its training course offerings to help you gain the core competencies necessary to fulfill the Federal Building Personnel Training Act. Furthermore we recognize the ever-increasing challenge to making our buildings the best performing they can be. We believe that expanding our training in building performance improvement, especially in energy efficiency, can make our workforce best in class.

This training will focus on core competencies to meet key job performance goals. We want to provide you with real on-the-job skills that make a difference. First Thursday seminars will help you: obtain project funding through a streamlined ESPC process tailored to meet the needs of small sites: place UESC task orders under a GSA area-wide contract; identify, select and deploy new and underused technologies to drive markets and accelerate change; achieve the greatest possible energy and cost savings through deep retrofits and identify critical opportunities and implement action plans to achieve energy security in federal facilities.

The new knowledge and skills in these seminars will help you do your job better, help your agency reach its energy, water and other building performance and sustainability goals and help our government save taxpayer dollars. Through our efforts we want to make the federal building stock a place of innovation and high performance and efficiency, basing our success on the measured results that we achieve.

Visit the FEMP website for the most up-to-date information, view archive seminars online 24/7 and register for upcoming seminars. We also hope you will take a few moments to provide us with important feedback through the evaluation at the end of this program. Together we can continue to learn, improve our core competencies and meet new energy challenges with confidence.

Enjoy the seminar and thanks for joining us.

*Kathy Hyland:*

Hello and welcome to the Federal Energy Management Program's First Thursday seminars. I'm Kathy Hyland and I will be your moderator today. This is the fifth course in the 2012 series and it will focus on streamlining ESPCs for small sites. If you'd like to call in to ask a question do so immediately after the presentation. From time to time on your screen you will see an email address, a fax number and a phone number to ask your questions.

We have two instructors today. Sam Espinosa is a senior subject matter expert with Energetics, Inc. Prior to joining Energetics Sam served as a senior contracting officer in the federal government, most recently for the Department of Energy where he was responsible for the award and administration of many types of contracts including energy savings performance contracts or ESPCs. Bob Slattery is a staff member of the Commercial and Industrial Energy Efficiency Group at Oak Ridge National Laboratory where he supports the FEMP ESPC program through engineering and economic analysis. We also have with us live from the Department of Energy's Federal Energy Management Program Chip Goyette. Chip is a member of FEMP's project transaction services team where he is responsible for ESPC's strategic planning efforts and is leading the ESPC streamlining effort at small federal sites.

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Let's look at the competencies that we're going to be covering in this session. I'll pause for a moment and let you take a look at the competencies that we're addressing in this

session. And our results expectation is at the end of this seminar you'll choose to use an energy savings performance contract ENABLE program to install targeted ECMs such as lighting, water and HVAC controls in facilities small than 200,000 square feet

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and within a six-month timeframe.

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Let me briefly cover our agenda today. We have three major topics that we'll cover. First Sam will talk about the ESPC ENABLE program overview, and Bob will talk about the ESPC ENABLE step by step process and how to get started. So let's get started. Sam, I'm going to turn it over to you.

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*Sam Espinosa:*

Okay thank you, Kathy. First of all we'll do an overview of the ESPC ENABLE and first of all ENABLE is not an acronym. What it is is a streamline process, the templates that allows efficiency in working this type of contract. Again, it's specific for sites that are 200,000 square feet, three CMs, 12 to 15 weeks is the duration for award of the contract and it also provides a short-term for the contracts of five to ten years.

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Okay ESPCs again, the ESCOs and current costs for implementing projects, the guaranteed cost savings equipment performance and centers of service. What the agency provides is they pay the ESCO over the term of the contract from energy cost savings.

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A key point obviously is that the savings guarantees are mandatory, savings must exceed payments in each year and the measurement verification is mandatory for every ESPC to include ENABLE. The contract term cannot exceed 25 years.

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This chart merely illustrates that before you do an ESPC what the cash flow is from the agencies during the ESPC going through the term you'll be paying back from the savings to the ESCOs. And then, after you've completed the term of the contract you will find that the savings, after submitting the contract go completely to the agencies.

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ESPC ENABLE again is intended for federal facilities under 200 square feet. It provides a standardized and streamlined process using the GSA schedule A4; as contracting officers and contracts understand that that is a very easy way to award contracts and giving them the ESPC ENABLE templates will allow you a much greater efficiency of putting these things together in a very short period of time.

Again, the targets are straightforward with the ECMs, including the lighting, water and controls. Again, it includes the basic levels of measurements and verification for each of these ECMs.

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Setting the Stage: Why ESPC ENABLE?

There are increased requirements for energy efficiencies and water conservations in federal facilities. The lack of appropriate funds to complete energy efficiency and water conservation projects. Also traditional project funding tools are not serving small federal installations; this particular ESPC ENABLE will do that for you.

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This chart illustrates from the GSA Federal Real Property Profile that 99 percent of federal buildings are less than 200 square feet. Given that, the market potential of approximately 2 billion square feet composed the target market for the ESPC ENABLE at an average annual energy expense of \$2 a square feet on these building accounts for \$4 billion annually in energy expenses. If ESPC ENABLE projects aim to capture an average of 20 percent of savings within a five to ten-year simple payback an estimated \$4 to \$8 billion in potential project savings will be gained.

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Again, ENABLE program benefits: this is a streamlined selection and acquisition process using proven contracting methods. The tools and the contract templates are standard to speed the award process. The extensive technical support, particularly in the pilot phase to ensure project success is what we're aiming for, energy savings realized in a short period of time, and the M&V appropriate for the project size and scope. Also, because this is a pilot program FEMP has allowed all agencies to receive these services from the technical folks and the contracting folks, if you will, free of charge.

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Now, looking at the traditional ESPCs versus the ESPC ENABLE specifically says that you go through the DOD ESPC IDIQ contract, which is the master contract versus going through the GSA schedule 84 (SIN246-53) using the GSA schedule. And again, as a contracting officer I've used GSA schedules and have found that they have been very easy to use and they do not require you from the federal acquisition reg to go through a lot of the necessary requirements going on a stand-alone contract.

Again, the contract term before traditional ESPCs on both are 25 years, again, the target market is unlimited for the traditional ESPCs, however for the ESPC ENABLE small federal facilities of 200 square feet or less is the target. Also the ECMs, the energy conservation measures are unlimited through the traditional ESPC; ESCP does have a limitation using lighting, water and controls. The average cycle time: 12 to 20 months on a traditional ESPC; 12 to 15 weeks is anticipated for the ESPC ENABLE, which again, from the agency side of the house, since we are so resource restricted that going through the 12 to 15 weeks is absolutely a positive.

Also you will find that the average project sizes within the traditional are 14 million and under the ESPC ENABLE they range from 500 to 1,000K to a million dollars. Again, the average contract term was another positive note for the ESPC ENABLE is that traditionally they're averaging 16 years and with ENABLE we're anticipating five to ten years for the term. Again, and a project facility is required for the traditional ESPCs and the ESPC ENABLEs they are not and there are prescribed M&Vs on both the ESPC traditional and the ENABLE.

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Okay we will move on to the step-by-step process.

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Again ESPC ENABLE phased approach: you've got the acquisition planning; you've got the ESCO selection, investment-grade audit and award, installation and performance period.

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The contract documents template, which you'll find we have asterisks through this presentation that demonstrates where the templates are but you do have a template for the acquisition plan, the request for quotation and the notice of opportunity. We have an ESCO expression of interest form, the ESCO evaluations form. We also have, following that, the notice of intent to award and letter to unsuccessful offerors. Survey tools also are available for the investment grade audit. Scope of work we have a sample scope of work that pretty much as a fill in. Also, the measurement verification protocol and template.

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We'll go on to phase one: acquisition planning.

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All contracting officers know on form part 7 acquisition planning is an essential element of your contract. Again, the essential members of the acquisition team are identified, the agency hosts a kickoff meeting with the acquisition team members, and again, agency develops an acquisition plan. Where you see the asterisk again I will note that there is a template that helps the agencies provide a much easier way to perform and put together the acquisition plans. Also the agencies develop the request for quotation and a notice of opportunity, which also is a template, and we have carefully crafted it to ensure that all the elements from the federal acquisition reg are a part of and piece of those templates.

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Again, the acquisition plan defines an organizational structure for the project. This includes a checklist for significant milestones, which in every agency there's always a milestone that's listed to ensure that there's successes for the requirements and also the program folks.

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Acquisition plan again, the contents within your planning, you have the agency name, location, description of the project site, the definition of the scope, the ESCO selection process and the valuation criteria, which is in the contracting space you will find that the selection process and the valuation criteria becomes very critical. Also you will have in the acquisition plan you have facility information and facility energy data which is assisted by the program folks to the CL to provide that information.

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Now we'll go into phase two which is ESCO selection.

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The estimated timeline for this is three weeks. Request for quotation and notice of opportunity is released. Again you have that information within the template that provides to the ESCOs that are providing to you a proposal that what is a requirement and what is necessary for them to be selected for award of the contract, to include will also have the prioritization by each agency how they plan to select that ESCO. Also the ESCO has expressed interest; that is a form that we provide to them that the ESCOs will fill, given the information that is provided in the NOO, notice of opportunity. Again, agency evaluates responses based on best value criteria, which is outlined in the RFQ and the NOO. Following that the agency notifies, after selection, notifies the unsuccessful offerors and issues a notice of intent to award.

We have also put together template, a letter type for unsuccessful offerors for all agencies to use, which makes it -- again, you do not have to create a document; it has been created for you and it makes it much simpler to use than having to create a new one.

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ESCO selection. Again, ESCOs are required to respond to the NOO using the express of interest template within one week. That's a recommended timeframe to ensure that you can make this a success within 12 to 15 weeks.

Each member of the agency acquisition team evaluates the ESCOs, submissions using pre-established proposal valuation procedures. And those are also listed in a template so that you, as COs and contract specialists in the contracting space understand that having that information with you makes it a lot easier than having to reinvent or come up with your own methodology of what you would consider strengths and weaknesses.

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Following the selection of an ESCO the FEMP-provided templates letter may be used to notify unsuccessful offerors. We recommend it. I think what we have done is looked at all the unsuccessful offeror letters that have gone out previously and we have used, if you will, the cream of the crop of these particular letters and put it into a template. Again, the agency issues a notice of intent to award for the investment grade audit to successful offeror and that's also in a template that's again utilized for purposes of establishing -- to get started with the investment-grade audit.

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*Kathy Hyland:*

Thank you, Sam. Before we hear from Bob let's year from Chip Goyette.

*Chip Goyette:*

Today's First Thursday seminar focuses on ESPC ENABLE, an important new project-funding tool that allows federal agencies with small facilities to complete energy efficiency projects in a short period of time and make progress towards energy efficiency and water conservation goals. Since 1998 federal energy professionals have used ESPCs to fund the largest energy projects with the latest technologies at little to no upfront cost to taxpayers. Hundreds of ESPC projects around the globe have collectively helped the government avoid billions of dollars in energy costs and significantly reduced energy use.

With this proven track record FEMP is committed to streamline, expanding and accelerating ESPCs for smaller energy projects with targeted ECMs such as lighting, HVAC controls and water. The ESPC ENABLE program builds on the success of the ESPC program by further standardizing and streamlining the ESPC process so that projects can be installed in six months or less.

The new process, along with a set of standard, streamlined tools and templates will help small sites award projects and experience energy savings at a much faster rate. The same basic ESPC tenets apply to the new ESPC ENABLE program. These include zero upfront capital costs to the agency, energy conservation measures designed and installed by an energy service company, guaranteed energy cost savings sufficient to pay for the project and a measurement and verification component to ensure that energy savings are achieved.

No matter where your site is located FEMP staff are available to explain ESPC ENABLE to you and your senior management, determine with you the best financing project option for your specific project and connect you with an experienced project facilitator to support your efforts. A FEMP project facilitator can help you manage an ESPC ENABLE project from start to finish and is available at no cost to the agency during the pilot phase. Furthermore, if your agency or region has a large number of sites interested in executing ESPC ENABLE projects FEMP will provide extensive contracting support throughout the pilot phase.

To take advantage of these resources and find other training opportunities related to ESPC ENABLE please visit the FEMP website at [www.FEMP.energy.gov](http://www.FEMP.energy.gov). Thank you for joining us; I look forward to answering your questions at the end of the seminar.

*Kathy Hyland:*

Okay. Thanks Chip. And now to Bob Slattery to talk about ESPC ENABLE.

*Bob Slattery:*

Thank you, Kathy. Glad to be here today to share with you some of the technical elements within the ESPC ENABLE program.

So we pick up at phase three, which involves investment grade audit and award. The estimated timeline for this phase is approximately three weeks. Major activities include the ESCO performance of an investment-grade audit, the ESCO submission of a final proposal, final negotiations and eventual agency award of a task order.

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So an investment-grade audit, what is that? An investment-grade audit is where the ESCO comes to the site and performs a visit and an audit to identify all opportunities for savings. In that process they gather data to establish baseline conditions and there is a requirement for the agency to witness this measurement process. And all of this data is collected to form the basis of a formal proposal to the agency.

And when what is unique about ENABLE is that FEMP has developed a set of audit tools for use in this IGA process. The ESCO is required to use this toolset as part of the IGA and what it does is it provides a standard approach to establishing baselines, calculation of savings and minimizes the technical review by the agency or the need for extensive review.

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So Sam spoke of earlier that we have tried to set up a program with very rapid execution and short payback times, and the way that that's been built is around a set of ECMs targeted specifically for the program. All of these ECMs are found in the current traditional ESPC program in nearly every single project out there in some form or fashion.

So ENABLE ECMs consist of lighting, and we were talking about the retrofit of lamps, ballasts and/or fixtures or any combinations and the addition of lighting controls such as occupancy sensors or daylighting sensors. In the area of water we're speaking of

replacement of sanitary plumbing fixtures, things such as toilets, sinks, urinals etc. Simple HVAC controls, here we're speaking of time and temperature setback or programmable thermostats. And there may be the opportunity for demand or night ventilation, depending on the systems. What's presently not included in ENABLE's ECM scope is the replacement of HVAC equipment or more advanced building control technologies.

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So going into the FEMP audit tool that is unique to the ENABLE process. The water and lighting portions of the ECM IGA are addressed through an Excel-based spreadsheet and this tool calculates energy and cost savings based on pre and post fixture data, usage of that equipment, energy and water costs as they apply. HVAC controls is actually utilizing a simulation program called Energy Plus running in the background, calculating pre and post energy consumption and returning those values to the Excel tool for further calculation. The tool outputs become the basis for the contract documentation and the tool auto generates several data tables and audit findings for use in proposals and other M&V plans.

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So going into a little bit of detail we'll start with the lighting tool. This is a room-by-room audit and it is a full inventory of all lighting equipment at the target site, whether it is one building or a set of buildings within the project scope. And here we're talking about calculating energy and cost savings with embedded formulas inside of the spreadsheet that are comparing baseline and proposed conditions. So current equipment is assessed, wattage is measured, there are measurements or assumptions made for the usage of that equipment, and then of course the electricity rates that would apply to the operation of that equipment. Likewise, proposed equipment would be categorized in the same manner.

We also include changes in our operating hour assumptions when we apply lighting controls and there is an ability to take into account interactive HVAC effects. Here what we're speaking of is when we take a lot of wattage out of our lighting system we're reducing heat in the building or reducing our cooling load requirements and there's some savings there through the HVAC equipment operation. Conversely in the winter months we've removed heat and it has to be made up by the heating system. In almost all cases there's a net positive benefit out of this, typically on the order of five percent of your lighting consumption will come in the form of interactive HVAC effects. And again this tool will auto-populate multiple tables for proposals in the M&V plan, which we'll discuss in greater detail.

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So to give you a little bit of insight as to how this tool functions, more some of the mechanics: the ESCOs generate a master list of all the equipment that they encounter. They'll enter specific equipment data for each unique fixture that they encounter within the facility. They will also enter equipment data for any proposed fixture. They'll identify each as a pre-existing or a retrofit item, they'll enter M&V data into this master list and if they choose, unit cost inputs as well. And what this does is it begins to auto feed the audit tool worksheet as the ESCO is going through room by room. The equipment appears as pull-down menus within the audit tool and then it auto-populates various fields of data based on that master. So it's meant to streamline the audit process and eliminate some of the manual repetitive data entry as we go room by room through these facilities.

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This is a sort of a very high level of that tool; there's a lot going on here. But essentially the field across the top is where the ESCO would define various parameters about the building, the energy cost structure, how equipment is used and then some assumptions as to what effects controls will have. And then those will begin to feed information or provide automated data fills for all the fields across the bottom five through nine. And this is where we get that room-by-room audit or accounting for which equipment is in which location in the building.

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So just to very quickly step through some of those fields, the first, again, some basic project information, instructions on how to utilize the sheet. And what the sheet will do is as information is applied it'll begin to pull savings summaries up to the top for quick viewing.

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Coming across the ESCO would enter anything to do with electrical rates, demand charges, if they apply, and some basic information on the heating system so that HVAC interaction calculations can be made. It'll also input some information on the occupancy schedule for the building

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And what that does for us is it just pre-populates what we call a usage group code table. And by usage group code we're speaking of an office, a restroom, a conference room; we're defining our different areas and applying the annual operating hour assumptions for those different building areas.

Also within this is a diversity factor. Now diversity factor is really just best described as the probability that that particular area and its equipment will be operating at the same time as the peak load requirements for that facility, and that is used to take into account any demand savings that may apply.

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Next we would have a lighting controls table. Here we're defining different parameters about possible controls that will be implemented. Controls will obviously adjust the usage assumptions of our pre-existing condition based on the type of sensor deployed. And we're speaking here of occupancy sensor, daylight, or combinations of the two.

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So now we're into the bottom field, sections five through nine that I spoke of where we begin the room-by-room audit data collection. So here in this first field we're describing our spaces and this is where we begin utilizing some of the other tables we just reviewed. So the first would be a usage group codes: we walk into an office, we label it as an office, define it and it begins auto-populating information about some of our assumptions on how that office is used.

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Next pre-retrofit equipment will be defined for that space. And here's where the master spreadsheet comes into play; it will draw upon fixture codes that have been defined by

the ESCO previously in that master list that we described. And again, any of the gray fields we see in this sheet are auto-populated with data, you know, from other sources. So again, cutting down on the repetition of manual data entry.

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Same applies for post-retrofit equipment descriptions, applying fixture codes from the master list. But the addition here is the ability to apply lighting controls and their obvious impact on operating hours assumptions.

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So as we go along line by line the tool begins to gather savings for both energy demand savings and dollars, and then there's additional breakouts within those categories for HVAC interactive savings, demand savings, etc.

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If the ESCO chooses they can add cost information to that master list, gathering some direct cost information for things like material, labor, disposal and other incidentals and it will roll up those costs for the ESCO.

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So quickly moving over to the water tool. In essence the water tool, the look and form and function is the same as the lighting, the same layout, use of master lists and main audit tool. It is also a room-by-room audit of all plumbing fixtures, and again it is calculating water and cost savings with embedded formulas in that spreadsheet comparing baseline and proposed conditions.

The difference here with water we're looking at current fixture flow rates in terms of gallons per minute or gallons per flush and then usage per person. Unlike operating hours with lighting now we need to switch over for water to look at the staff levels of the facility and there's some assumed usage of those pieces of equipment. And then of course water and sewer rates as they apply. Proposed fixtures are assessed in the same manner.

Now this sheet will also take into account hot water savings where it applies. Again, auto-population of multiple tables for use in proposals and the M&V plan.

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The HVAC controls tool is a little bit different. It utilizes a building simulation program called Energy Plus to calculate energy and cost savings through comparison of baseline and proposed conditions, but rather inside of an Excel tool it is done through the simulation program. The ESCO will enter via Excel interface a number of parameters related to building HVAC system and controls, which will be simulated and return to the Excel sheet. All of this operates in the background and is transparent to the user of the tool.

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So again HVAC control tool, like the others will auto-populate tables and proposals and to give you a little bit more insight on Energy Plus it is an energy analysis and thermal load simulation program. It was developed in part with DOE funds, it is free to the public and it comes bundled as a single file with this audit tool set. So again, it's

transparent to the user, it's a single download and a single interface through Excel with all the necessary operating files.

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This is a very high level view of that Excel interface. One page interface, where the ESCO would input building parameters, HVAC equipment parameters, then of course our pre- and post-control parameters. All that with the simple click of a button gets run behind the scenes through this simulation program, and savings values for pre- and post-, or pre- and post-conditions return to that spreadsheet area on the right for further calculation, all automated within the sheet.

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So overall we have multiple outputs from our FEMP audit tool and those include saving summary tables, retrofit equipment summary tables, things like fixture summaries, building materials, etc., cost rollups. And then of course task orders scheduled for, which we'll talk about here in the next slide.

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So after the IGA site visit the ESCO will prepare a final proposal. That final proposal shall consist of the ECMs proposed, and again utilizing the outputs from the FEMP-provided tool, and M&V plan, which again is a FEMP-prescribed plan available in a template format and a price proposal. Now this price proposal consists of task orders schedules one through five and for those familiar with the traditional ESPC program it is the same set of financial schedules. For those that are not familiar with it essentially these schedules provide in numerical tabular form a summary of all project financials, energy savings, and cost savings in five different formats. And of course they'll have to submit a statement of work, which again utilizes a FEMP template.

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Following the investment grade audit the ESCO will present the final proposal, including all audit findings; final price, savings guarantee, and then this information will be presented prior to final negotiations.

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So the agency and the ESCO, if negotiations are needed, they'll work out that agreement on price and scope of work and then following that the agency would issue a task order award for the contractor to implement those measures.

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This brings us to our fourth phase, which would be installation.

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The estimated timeframe for this phase is approximately six weeks and the major activities would include installation, measurement and verification, commissioning, and agency acceptance. Again, three of these items are all addressed with FEMP-provided templates.

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So the ESCO will implement the measures per the statement of work and the approved project plan, and then the ESCO will provide the agency advance notice of completion and will submit a request for an inspection. In turn the agency will schedule inspection with the ESCO.

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So at this point they'll then perform final inspections and commissioning, and this is in accordance with the FEMP-provided commissioning plan. It'll be post-installation M&V, also in accordance with the ENABLE M&V plan. The deliverable from the ESCO is a post-installation report, and this includes both the findings from the commissioning process and the post-installation M&V process. And then we would move on to project acceptance.

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So let's talk a little bit about measurement and verification. The purpose of measurement and verification is to quantify the savings of the installed equipment. So FEMP has provided, or has an established M&V template for use by the contractor, and this plan prescribes the sampling, the measurement and the reporting protocol for each individual ECM. The protocol is utilized during the ECM acceptance and annually in the annual M&V audit.

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There is a prescribed commissioning process, and the purpose of commissioning is to ensure the equipment functions according to the design and it has the potential to save energy. So FEMP has established a commissioning plan template for use by the contractor and the commissioning plan describes more of a framework for the contractor to operate and to perform a commissioning approach and execution of commissioning activities and reporting.

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So then after those steps we would move to final project acceptance. Here FEMP has also provided guidance and checklists for the agency in the area of project acceptance and these would include outlines of post-installation activities that they should expect and it provides a checklist for acceptance of a completed project for use by the agency. And examples may be agency witnessing of M&V, approval of individual ECMs and approval of the commissioning and the post-installation report.

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So the final phase performance period.

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This is our longest phase of the project and it occurs annually for the life of the contract. The major activity within the performance phase is the annual measurement and verification audit, and this is a regulatory requirement that it occur each year.

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An annual M&V audit is performed to verify the achievement of annual cost savings and performance guarantees provided by the ESCO. The ESCO or agency must perform the

annual audit. Again, that is a requirement. Equipment inspections are performed as prescribed in the M&V plan to verify that the savings has been achieved and there will be an annual M&V report that is to be generated by the ESCO and submitted to the agency.

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FEMP provides technical assistance during this pilot phase and offers staff with federal procurement, federal project facilitation and project management experience at no cost to agencies participating in the pilot. GSA is also providing extensive contracting assistance to all agencies utilizing the GSA schedule.

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So let's touch on a few upcoming training opportunities for the ENABLE program. You can go to the FEMP training website at the web address listed there. Also just brought online there is a new ENABLE website on the main FEMP webpage. If you go to the main FEMP webpage and look for the project funding tab at the very top of that page that'll bring you to the area which contains new content and information specific to ENABLE.

There are a couple of opportunities tied to the upcoming GovEnergy conference out in St. Louis August 19<sup>th</sup> through the 22<sup>nd</sup>. There will be a session on ENABLE within the project-financing track and we've just recently added an additional track specific to water in the H2O track.

For ESCOs there will be an ENABLE boot camp and that is in conjunction with the GovEnergy occurring on Sunday, August the 19<sup>th</sup>.

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So getting started. First, an agency interested in ENABLE would want to identify sites that fit the size and scope of the ESPC ENABLE initiative. You'd want to obtain buy-in from facility personnel, contracting officers, and any senior officials that are required for sign-off. You would also want -- although ESPC ENABLE provides a vast array of templates and automated processes you would want to identify your own internal forms, procedures or agency-specific requirements that would be necessary, and of course assembling an acquisition team to initiate the process.

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So FEMP is actively pursuing sites for pilot projects. Any agency interested in a pilot project may contact Ben Engleman at the information provided on this slide.

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So in conclusion ESPC ENABLE is tailored for small federal facilities to implement straightforward ECM measures: lighting, water and HVAC controls in a standardized and expedited manner.

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Program benefits include this standardized and streamlined process, which again result in quick execution and short contract terms, extensive technical assistance provided in this pilot phase, energy savings realized in that short period of time, again, from the focus of ECMs within the program, and M&V appropriate for the project's size and scope.

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So here's some further contact information: Chip Goyette of the Federal Energy Management Program can be reached for any program level questions; myself, Bob Slattery, feel free to contact me with any specific technical questions on the program; and Sam Espinosa can be reached for contract-specific questions.

Turn it back to Kathy.

*Kathy Hyland:* Okay. Now we have time to answer your questions so call in or email us your questions and we'd be glad to answer them. I have a few that have come in already. Chip, the first one is directed towards you. It is: Why is FEMP using the GSA schedule 84 as the primary vehicle to execute ESPC ENABLE?

*Chip Goyette:* Great, thank you Kathy. FEMP decided to pursue ESPC ENABLE using the GSA schedule because they actually had already established the process to execute ESPC projects and that's under SIN, or Special Identification Number 246-53. So they had a process and a system and a number of ESCOs or contractors available to do the work, along with a willing partner in GSA to work with us to meet the ESPC ENABLE goals of streamlining and standardization. So again we basically chose the schedule because again, it had that capability already and we were able to work with the GSA point of contact to further streamline.

*Kathy Hyland:* Thank you. Sam, this question is directed towards you, it's: What does the final proposal and contract actually look like?

*Sam Espinosa:* What the final award of the contract basically looks like is the document itself, given the GSA cover form that you use to award the contract to include a contract or final proposal and the attachments to that section as an attached schedule so it'll be a part of the contract or award.

*Kathy Hyland:* Great. I have a question from Jeff Regal. Actually I have a couple of questions. First one I'll direct back to you, Chip. It's: When will ENABLE be available?

*Chip Goyette:* Great. Well thank you. ENABLE is actually available now. The GSA schedule 84, that SIN that I mentioned, 246-53, has been updated to incorporate the new streamline process that Sam and Bob discussed earlier. So if folks are interested in getting started they can contact Ben Engleman or even myself and we'll sit down with them to put a plan together to move forward.

*Kathy Hyland:* Great. And Chip another one directed towards you from Jeff: how can the agencies get these templates that they have access to?

*Chip Goyette:* Sure. The templates will be available on the new ESPC ENABLE website within the next two weeks. We're currently finalizing some things, further streamlining based on some input we've gotten from some early participants in this. And so again, we plan to have them available in two weeks.

*Kathy Hyland:* Great. Bob this question is directed towards you. It's: The lighting audit tool and also the water audit tool seem like they might have application outside of the ESPC ENABLE. Will those be available to energy and facility managers?

*Bob Slattery:* Yes, eventually the audit tool will be posted on the FEMP website for all to view. Presently in the pilot mode, it's available to those partaking in that pilot activity. And out of the feedback from that pilot activity we're making some further refinements and once those are made that will be posted for the entire ESCO community.

- Kathy Hyland:* Chip back to you. The question is: What exactly do you mean by a basic level of M&V that's referenced on slide nine?
- Chip Goyette:* Sure. Well that's more of a technical question and I think I'd like to direct that to Bob Slattery.
- Bob Slattery:* Sure. So when we talk about the M&V process for ENABLE. We've looked at all of the best practices from the current traditional ESPC program and tried to draw out those elements that would be most applicable to ENABLE being a streamline process. When we talk about that M&V plan, that template, it's being just a template; it is a fully-developed MV plan for the ESCO to utilize; it only needs to be tailored in a few ways specific to that site. So it prescribes all of the elements in how M&V will be approached. For those familiar with the different M&V approaches the options A through D it's utilizing option A, for each of these you have prescribed sampling or measurement, how many fixtures will you measure. You'll record all that in the tool and then the annual audit will consist of inspections of that equipment to verify that it's still in place and still has the capability of providing that guaranteed savings. So in one sense we've brought it down to just absolutely what is needed to satisfy requirements while still being robust enough to have a high confidence level and that guaranteed savings would occur within these measures.
- Kathy Hyland:* Thank you. We have Carter Ward from the Department of Energy on the line. Carter can you hear us?
- Carter Ward:* Yes I can. I wanted to find out if the set of ESCOs that respond to the GSA 84 contract are the same under the ESPC super ESPC.
- Kathy Hyland:* Want to take that one?
- Bob Slattery:* I guess I can. I guess the GSA ESCOs, the ESCO are listed on a GSA schedule, given the information that's with the master contract up at Golden and the number of ESCOs which are 16 I believe make up some of those that are listed under the GSA schedule. I think they're also there Carter.
- Kathy Hyland:* Any other questions, Carter?
- Carter Ward:* That was it. Thank you so much.
- Kathy Hyland:* You're more than welcome. I have a question for Bob: Bob, this is an energy manager saying I have a water conservation measure to improve the irrigation systems at my facility. Can you use this process to upgrade your irrigation?
- Bob Slattery:* The short answer will be yes. That was one of those refinements that I spoke of coming out of our pilot process. So initially the tool is set up to address sanitary fixtures, we were currently right in the middle of the process of updating that tool to take into account what we'll call maybe other process loads: irrigation, laundry, things of that nature. So yes, the tool is advancing week by week to incorporate more of those elements.
- Kathy Hyland:* Okay good. Bob, another question for you: Can you do all three ECMs, one ECM, how does that work of the three choices that you have?
- Bob Slattery:* Yes, so the program is set up obviously with three ECMs, that is the intention that you would opt to utilize all three. Again, I had mentioned that in nearly every single traditional ESPC program you'll find this base of three ECMs. They are that common; they have that I'll say low level, it's a low-hanging fruit for energy savings so it's

something that is kind of a bread and butter for the traditional program. If there happen to be some reason that one of the ECMs just simply wouldn't flow in terms of the financials then that could be reduced to two or two one. But more than likely from project experience you would be able to capitalize on all three.

*Kathy Hyland:* Okay. Bob I'll direct this one to you first and other people might have things to say about this. This is an energy manager who says that -- this almost sounds like a no-brainer: My facility has outdated lighting and plumbing fixtures. Why wouldn't I do this and what are the potential pitfalls or obstacles that I should consider?

*Bob Slattery:* Well as I said, these measures, they are an opportunity for nearly every single site and not just small site. And what we had found, that the large program, because of its structure and requirements it just wasn't feasible to utilize at those small sites. So we developed this program to bring those measures there.

But yes, the opportunity would be there for all three.

*Kathy Hyland:* Okay. I have a question from Jodie Sordall at the FAA. And Chip, I'll direct this one to you first: Is there a minimum dollar amount recommended for projects? I thought I heard \$500,000 is under that potentially is possible.

*Chip Goyette:* Absolutely. The \$500,000 amount that you heard in the briefing really was more of a guide and such. So we are definitely considering dollar amounts below that. So again, if you think you have a project we definitely want to talk to you to see how we can get it started.

*Kathy Hyland:* Okay. This is a question from Sara Mitchell who I believe is with the State of Colorado Department of Transportation. Sara wants to know if ENABLE pilot opportunities are only offered to federal facilities or would state agencies qualify. Chip, do you want to take that one?

*Chip Goyette:* Sure, I'll take that. The pilot program that we're talking about today is certainly only available to federal entities. However, in our discussions with GSA schedule, the 84 -- folks that manage that schedule 84 they did say that more than just federal entities could access that schedule. So I would strongly recommend you going to the GSA schedule 84, it's under special identification number 246-53 and there will be contact information on that website for GSA that you can certainly talk to see if you could access that schedule.

*Kathy Hyland:* Great. This question is from Peter Harold, and I believe this one's directed towards you, Bob: The presentation state set back thermostats for HVA controls; would a simple building automation system also be acceptable?

*Bob Slattery:* If the building automation system were tailored to mainly control the HVAC system, that is what we are simulating or calculating within that toolset. If it's also controlling other process loads right now we don't have that wired into the calculations, if you will. So that's probably a prime example of something that we will look to add in the future because obviously, you know, those type of wider control systems are popular, with the intent of addressing small facilities it's more likely that we're looking at programmable thermostats but certainly we acknowledge that there's the opportunity or more advanced systems. And so I think we would tag that as a future item to come to the scope of ECMs.

*Kathy Hyland:* This question is from Joe Walsh. He wants to know if ESPC ENABLE specifically intends to target smaller federal buildings that are on scattered sites, either belong to agencies without big campuses or is it intended to get smaller buildings and smaller

ESPC projects in place like military bases where they may not be adequate project size to warrant them under regular traditional ESPCs. Bob.

*Bob Slattery:* I can address that one. Yeah, in general I'd say it is in all of the above. The first intention is probably looking primarily at those scattered sites because it is so difficult to utilize the traditional ESPC program at those remote locations. It's not to say that that would prevent a cluster of buildings that may be more of a campus setting. Again, there is the threshold of 200,000 square feet for total project size, and the reason behind that is if you're over that amount it's more than likely that there are more opportunities that the traditional program could be utilized in a grouping of buildings or even of other sites within one agency to make use of that full spectrum of ECMs.

*Kathy Hyland:* The next question is from Susan Literal. Susan is with the USDA Forest Service and she would -- Bob again -- ask that you expound on the idea of the pilot or trial period, how long is it for example?

*Bob Slattery:* Yes. So FEMP is presently engaged with pilot sites, trying to arrange with various agencies this pilot activity. There are some underway. So if there is an agency interested, yeah, I would suggest you reach out to us to let us know of your interest. The first pilot that was set up it really got underway in a matter of weeks; it's really a matter of how fast can the agency assemble on their side the right players, get everyone in the room: the extended FEMP team that's put the ENABLE program together is ready to have those discussions with those agencies and launch this in a matter of weeks if that allows on the agency's timetable.

*Kathy Hyland:* Chip, this one is directed towards you from Tim Hattemain and he would like to know if FEMP would assist in bundling projects to a minimum level so that financing partners can become interested.

*Chip Goyette:* Sure. The bundling is something we are definitely encouraging for these small sites, particularly the small sites that again wouldn't really qualify or be large enough for the traditional ESPC program. So one of our goals is to get some agencies to really step forward and see if they would be able to implement a systematic approach to this within their whole organization so we do get a very large number of buildings that we can bundle together and get retrofitted to be more energy efficient. So absolutely. We're currently trying to work with the agencies now to make that happen.

*Kathy Hyland:* Sam, this is a question specifically from Todd Svarro but there seems to be several questions along this line: These ESPC templates sound very interesting; are they going to be available for public viewing or can you look at the templates?

*Sam Espinosa:* I believe you can look at the templates and I also believe that given that I think Chip, I think you were saying that information is available to them today on the website?

*Kathy Hyland:* Chip are the contract templates available?

*Chip Goyette:* Yes. For those agencies that want to get started we'll be definitely happy to share them with them. And then again, within the next two weeks probably we plan to release them publicly on the website so that pretty much everyone can take a look at them.

*Kathy Hyland:* Great. Bob, this one is directed towards you from Jim Buchanan. He wonders if steam trap monitoring system projects are eligible under this program?

*Bob Slattery:* In that case, no. Presently the scope is limited to those three measures. I think as the program matures and develops we put together those methodologies to streamline things

like steam traps and other ECMs that may be incorporated in the future. But at present that is not.

*Kathy Hyland:* This question is from David Tyne. Chip I'll start with you and see if you could answer this question. It says: What if an agency would like to use a project facilitated to assist can they use SINs 871-211 or GSA 03 FAQ for procurement?

*Chip Goyette:* I'm not too familiar with the first SIN that was just mentioned. Like we had said earlier we will be providing project facilitation support to all projects in the pilot phase. So FEMP will be actually providing that free of charge to the agencies.

*Kathy Hyland:* Okay. Sam, this one is directed your way. It's from Wilson Jumper, and he wants to know if the ESCOs receive a task order to do the IGA, the audit?

*Sam Espinosa:* Ask that question again please.

*Kathy Hyland:* Yeah. Will ESCOs receive a task order to do the IGA, the investment grade audit?

*Sam Espinosa:* They will use the ESPC ENABLE once they have been selected under the notice of intent to award. With that letter they will receive a request to do the investment grade audit.

*Kathy Hyland:* Okay great. And Chip I believe we've answered this one but just for clarification I have a question from Mike Rogers wanting to know when ENABLE officially starts?

*Chip Goyette:* It's actually officially started now and we're taking potential pilot projects. We've got one started right now. So please contact us immediately and we will get started with you.

*Kathy Hyland:* Bob, I have another question directed your way from Paul Auberge. It says: Thank you for the workshop; this is helpful. Would you describe the assessment of the daylighting potential, the development of daylighting and glare control strategy? Just generally talk a little bit about daylighting potential for --

*Bob Slattery:* Certainly. That is one element we've incorporated with the lighting measure, the whole use of control strategies. FEMP itself, or the ENABLE program is not prescribing any particular solutions; it would be to the ESCO that you chose to engage with to assess the possibilities for that measure. But again, because that toolset, the process is able to account for savings from those. It would be recommended that you engage with an ESCO that has that expertise to properly audit for those types of opportunities and not simply just looking at replacing lamps and fixtures. So someone that has expertise in control strategies.

*Kathy Hyland:* Chip this question is directed towards you from a David Altman. The question is do DOD agencies and their entities, are they eligible to participate or are they excluded from this?

*Chip Goyette:* No, DOD agencies are absolutely eligible to participate. We've actually even been talking with the folks down at Huntsville to try to determine how we can make this happen. So absolutely, again please contact us if you are interested in participating.

*Kathy Hyland:* Okay. A question from Sam, this is back to Jeff Regal: Sam, will the ESCOs have any way of knowing how many ESCOs have been notified of an opportunity and how many have expressed interest?

*Sam Espinosa:* Well the procurement world, normally when you go out and do these NOOs and you send them out and then you receive a response it goes out to the -- in the event that they're going to use GSA they have a prescribed ESCOs that are listed a GSA. The notice goes

out to all those ESCOs. And I guess the other follow on question was will -- who will -- is he asking that -- do they -- the specific agency will be given that information or can someone from an ESCO ask for the information on who has -- who wants the information?

*Kathy Hyland:* Jeff, I don't have the information available in your email so if you want to call us to get an elaboration on that you're more than welcome to.

Chip, I believe this one would be directed back to you or maybe to Sam: Do I understand that GSA charges would not apply to the agencies using schedule 84?

*Chip Goyette:* That's a good question and we're just getting started with using that GSA schedule so I would probably be more comfortable with GSA actually answering that question and if you could email me I will certainly provide their information to get that information from you.

*Kathy Hyland:* Great. I have a question from Nuhika Kohler: During the duration of the contract how are charges in the site activity that increase or decrease energy usage are considered in the M&V process in the way that the ESCO gets paid?

*Bob Slattery:* I'll address that question. Yes, so before I described a little bit the M&V protocol, this option A, if you will whereby we're measuring pre- and post-conditions. And part of that protocol is there is an agreement or a stipulation that the annual operating hours or the usage of water equipment or things of that nature are set for the duration of the contract. That will define the savings out into the future years. As long as that measure is in place, and that's what the annual audit is intended to do, to verify that the measure is in place and still functioning properly when the savings are to occur. Certainly if you had a change, a mission scope change whereby you're utilizing the facility more then there's obviously more savings; it's just in the same ratio or percentage as was defined in those original conditions.

Now there is the opposite of that, if a facility were to suddenly -- the mission change and be underutilized there would be less savings involved then that baseline stipulation. But that is typically the arrangement for these three type of ECMs, even in the traditional program under a measure or option A protocol that you define pre- and post-conditions measured to those and then make assumptions or stipulations on how they will be utilized out into the future, and that does get rolled up into the guarantee in that manner.

*Kathy Hyland:* I have two questions from Bartley Matthews and he's with the Utah State Government, U-SAVE Energy Loan Program. His first question is: Can ESPC ENABLE tools be adapted to our state revolving loan fund to enable municipalities with small projects, especially rural municipalities to develop successful projects that can be funded by a loan program?

*Bob Slattery:* I guess I'll take that one. Yeah, in general, as Chip had mentioned, all the tools and templates will be posted publicly on the FEMP site and then shortly thereafter the audit tool. So I don't think there is anything specifically that would prohibit a state utility from making use of that public information. Things like the audit tool they are locked down in a sense; this is an Excel interface with other software behind it, so those sort of things are protected in a way so they can't be accidentally broken to create errors within the calculations. But I would say from that perspective it will be a tool set in the public space and if an entity were to utilize those resources that that would be a possibility.

*Kathy Hyland:* Thank you. His second question is: What incentives encourage an ESCO to do a small project? My understanding is that ESCOs typically focus on projects of million dollars or more.

*Bob Slattery:* I'll take that one as well. The intent of the ENABLE program was, and we probably mentioned it many, many times, of a streamlined process. So where we could, in every step, from beginning to end there is either some form of template, pre-established plan, pre-defined process. Ultimately we're trying to take out some of the overhead to the ESCO associated with that process. Unlike the traditional program where you may be out to the site multiple times this is a single site visit to do the IGA, a toolset that will hopefully streamline a collection of all that. And we didn't show it in the presentation but all throughout those templates and plans the normal tables of data that you would typically see all flow out of that toolset. So there's a lot of fill in the blank, cut and paste, ultimately trying to take out the costs for the ESCO to engage with such a small site such that it can be justified financially.

*Kathy Hyland:* Great. That's all the questions that I have. Chip, would you mind just kind of reviewing the status of ENABLE, the website, the tools and when people might expect to be able to take advantage of this? Clearly this is creating a great deal of interest.

*Chip Goyette:* Sure. Thank you. The status of the tools and the website, we've actually just launched the new ESPC ENABLE website. If you go to the FEMP website and click on the project funding tab you'll be able to now see a new ESPC ENABLE link on the left hand side. And as I said earlier, we plan to launch or distribute all the templates and tools, particularly the contract templates. We may still be refining or revising the IGA audit tool that Bob had discussed, but we do plan to release all those contract templates over the next two weeks.

In the meantime folks are certainly welcome to contact us now, today, tomorrow to basically talk through how we can get started or how they can get started to basically implement a project.

*Kathy Hyland:* Okay I actually have had one more question come in. It's from Michael Lira with NNSA at DOE and I think this is probably a Sam question: How many of the GSA ENABLE contract holders certified their business as small business concerns?

*Sam Espinosa:* As we go to GSA and how they work their contracts I think that question could best be answered with GSA and they'll provide us that information because a lot of the concerns for all the agencies are, as you well know, going through the procurement side of the house is are they small business, and then in the event that they are not small business then for example NNSA must go out and justify why they go full and open competition. But in the GSA world I believe that GSA will be able to provide that information to you, Michael.

*Kathy Hyland:* Okay so that concludes our seminar for today. Before I return to close let's look at the upcoming First Thursday seminars.

Please take a moment to complete a brief evaluation to help us determine what future training topics you would like FEMP to offer and ways we can improve these First Thursday seminars. You can also complete a quiz to reinforce your learning today and print a certificate for your training records. You can access this quick evaluation and quiz in one of three ways: go to the website [www.FEMP.energy.gov/FirstThursday](http://www.FEMP.energy.gov/FirstThursday) and find the quiz and evaluation there. If you registered for this course via FEMP Central you'll get an email follow-up and it'll have the link to quiz and evaluation. And if you're watching this today by live webcast you can click on the paperclip icon and the evaluation and quiz will be there.

We'd like to thank our instructors Sam Espinosa, Bob Slattery and Chip Goyette. We would also like to thank FEMP for sponsoring the First Thursday seminars and thank you

for joining us today. We'll see you on Thursday July the 12<sup>th</sup>. Note that due to the holiday this is second Thursday and we will be discussing deep energy retrofits.

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