

MEMORANDUM

To: EEAC Executive Committee
From: Eric Belliveau and the EEAC Consultant Team
Date: 19 February 2014
Subject: EEAC Consultant Team Workplan for 2014

On behalf of the EEAC Consultant Team, Optimal Energy is pleased to present this Program Technical Consultant Workplan for 2014. We appreciate the opportunity to once again serve the Council as it oversees and advises the PAs' continued efforts to achieve the goals of the Green Communities Act for the benefit of Massachusetts' energy consumers. As we help monitor, analyze, and advise energy efficiency implementation of the current Three-Year Plan, by year end we will once again have begun the cycle of developing the Three-Year Plan for 2016-2018. The success of the current plan is of paramount importance. In order to set realistic indicators and goals for 2016 through 2018, we must first have in place the necessary information and expanding resources to continue the climb to harvesting all energy efficiency cheaper than supply. Only with all parties agreeing that we are cost effectively expending maximum effort can we hope to know what is possible in the future. Unfortunately, the current plan is falling behind. It is the job of the Council's Consultants to investigate the shortfall and find solutions whatever they might be or whoever they might come from. There are no more silver bullets for Massachusetts. Making up lost ground requires careful analysis of the past, constant monitoring of the present, and informed planning for the future. We look forward to helping get the current Plan back on track and solidifying the Commonwealth's position as the nation's leading state for efficiency in the future.

This document describes our management philosophy for 2014, our proposed Workplan, and our proposed budget. It describes the Workplan in general terms, listing many of the topics, issues, and activities we expect to address in 2014. This Workplan should not be considered an exhaustive or exclusive list of our Team's efforts for 2014. Rather, it is based on our current understanding of the Council's priorities and the key issues requiring attention in 2014, developed from our past efforts as the Council's consultant. We anticipate that additional areas of interest and need will develop over the coming months and will adapt our efforts and focus to ensure that these are addressed appropriately and in context with all of our work for the Council. As always, our guiding principles are achieving the goals of the GWSA, the GCA, and the Council itself.

OVERVIEW OF PROPOSED APPROACH FOR 2014

After discussions with members of the EEAC Executive Committee and other Councilors, we have created a Workplan that is organized around the new Council priorities. In addition to the more specific priorities issued for 2014, we worked with the Executive Committee to create a schedule of topics that the Consultant Team will research and present to the Council during the year. In response to these two inputs, we have created a scope of work that applies team resources in an efficient and measured way.

The Council's priorities for 2014 are fewer, more specific, and have clearer objectives than the more general priorities from past years. Obviously, the successful implementation of the 2013-2015 Three-Year Plan and achieving the goals set forth in the Global Warming Solution Act remain key priorities. Within these larger goals the Council has specified areas on which the Consultant Team will focus.

- Achieve C&I goals and make up lost ground for the 2013-2015 Plan portfolio
- Increase access and ease of use in the programs
- Pursue a statewide database
- Begin preparations for developing the 2016-2018 Three-Year Plan

To serve these priorities, the Team proposes a base budget of just under \$1.47 million for its activities on the Council's behalf during 2014. Please refer to Budget section at the end of the Workplan for more details.

This year is a critical year in the evolution of EE in Massachusetts. There is much to be learned and much currently being studied. Program ideas are plentiful but existing programs tend to take on a life of their own; overcoming the barriers to change them takes data, experience, and time. Our Team is set to bring forward the best ideas backed by good data. The key unifying feature of the year is to compile enough usable information on the Commonwealth's EE programs from all available sources so that we are well grounded when planning for 2016-2018 begins. The robust and uniquely collaborative EM&V structure provides a nexus point for our work this year. While we see 2015 being a year focused on planning Massachusetts's energy future, we intend 2014 to provide the building blocks for that process.

We begin our discussion with EM&V, followed by Planning & Analysis; Implementation (both Residential/Low Income and Commercial & Industrial); Monitoring, Coordination, and Cross-Cutting Tasks; and Technical Services. In the C&I and Residential sections of the Workplan, we list specific tasks and the deliverables and timelines for each. In the EM&V and Planning and Analysis sections of the Workplan we list tasks in a more general manner with a discussion of typical deliverables and timelines where they might occur.

EVALUATION, MEASUREMENT & VERIFICATION

CONTEXT

EM&V is a critical engine both for the EEAC Consultant Team and for the Commonwealth as a whole, providing objective and fact-driven results that help to ensure the reliability of savings claims, improve existing programs and support the development of new ones, and lay a solid foundation for the development of the next Three-Year Plan.

The 2009 Council resolution that established the Commonwealth's current EM&V framework assigns substantial responsibilities to the Council's Consultant. Working on the Council's behalf, the Consultant is charged with overseeing every phase of the EM&V process, including evaluation planning, contractor procurement, study implementation, reporting and outreach, and application of study results. While the Consultant must work closely and collaboratively with the PAs, the resolution specifies that if consensus cannot be reached between the PAs and the Council Consultant, decision-making authority (subject to a system of appeals) rests with the Consultant as the Council's agent. It should be noted that EM&V studies can be controversial as their results directly affect savings and benefits. Making sure the studies are conducted as objectively as possible is a key responsibility of the consultant team.

Since the establishment of the current EM&V framework in 2009, the Commonwealth's EM&V program has grown by leaps and bounds. The overall scope of the EM&V program has increased roughly four-fold since 2009 and continues to expand steadily as the ramp-up of savings goals drives increased information needs. At a technical level, it is widely viewed in the industry as one of the strongest—if not *the* strongest—EM&V programs in the country. Last year saw a substantial effort to systematize the EM&V planning, reporting, and outreach process in order to strengthen the feedback loop and enhance the ultimate usefulness of study results.

OBJECTIVE

The preceding context helps to explain why all of our Team's tasks are driven by a single overarching objective: to enhance and ensure the objectivity, accuracy, timeliness, and usefulness of PA-administered EM&V activities on behalf of the Council, as specified in the 2009 EEAC EM&V Resolution.

Our specific priorities in pursuing this objective in 2014 include the following.

- Continuing to strengthen the feedback loop between EM&V and the policy, planning, and program administration functions, by further improving the EM&V planning process, communication with stakeholders, and the dissemination of study results
- Providing a solid foundation of factual results to support the development of the next Three-Year Plan
- Ensuring that savings claims remain reliable in the face of ever-increasing pressures on the PAs to meet savings goals

- Continuing to build on several recently-established key research initiatives, including top-down econometric research into overall net program impacts; data-mining efforts to provide useful insights into program outcomes, customer bases, and supply-side populations; and market effects studies to assess the overall effects of programs on the structure and functioning of target markets.

Overall Discussion of Deliverables. Because the 2009 EM&V Resolution specifies that EM&V in Massachusetts is to be a fully collaborative effort between the PAs and the Council's designees, many work products are developed jointly by the PAs and the EEAC consultants. Work products can therefore be divided into two primary categories: those for which the EEAC consultants have sole responsibility, and those that are the joint responsibility of the PAs and the EEAC consultants. Joint work products generally include final reports, webinars, strategic evaluation plans, project-specific evaluation plans, and monthly status reports showing progress on all in-progress studies. EEAC consultant-only deliverables generally include presentations to the Council (roughly bi-annual in recent years); monthly activity reports; and briefings of individual Councilors by phone, in person or by e-mail.

Overall Discussion of Timeline. Under the overall 2013-2014 EM&V Plan submitted to the Council in October 2013, in order to make the most effective use of resources, studies were deliberately staggered to start and end at a wide range of times ranging from late 2013 through mid-2015. As of mid-February, there were a total of 53 EM&V studies in progress, including approximately 20 in the project-specific planning phase, 30 in the implementation phase, and 3 in the reporting phase. Each of these phases corresponds to the work areas described below. As a result, the EM&V team's involvement in the core functions of EM&V planning, implementation and reporting is typically ongoing throughout the year.

WORK AREAS

The individual tasks under EM&V are structured primarily by function, reflecting the unambiguous responsibilities laid out in the 2009 EM&V resolution.

Oversee EM&V Planning

This task includes overseeing the development of both overall strategic EM&V plans and detailed plans for individual EM&V projects.

- Strategic EM&V plans encompass the development of long-term research priorities, overall research strategies, and allocation of resources.
- Planning for individual EM&V projects focuses on establishing research objectives, determining data collection and analysis activities, setting budgets, assigning contractor staff, and laying out project schedules. Under the refinements to the planning process established in 2013, individual EM&V projects typically go through three planning stages, each progressively more specific and detailed, before they reach the study implementation phase.

Deliverables: EEAC consultant-only deliverables include Council presentations, monthly activity reports, and briefings. Joint EEAC consultant/PA work products include project-specific evaluation plans, overall strategic evaluation plans, and monthly status reports. Each work product is signed off on by the consultants.

Timeline: Due to the strategic staggering of studies, oversight of project-specific planning is expected to occur throughout 2014. In addition, the last overall strategic evaluation plan, covering through the end of 2014, was developed in October of 2013. We anticipate that a new strategic plan covering 2015 and beyond will need to be developed beginning in the last quarter of 2014.

Oversee EM&V Study Implementation

This task involves overseeing the implementation of individual EM&V studies once they have completed the planning stage. EM&V study implementation can include a wide range of data collection and analysis activities, the specific nature of which varies by type of study. There are currently roughly 45 EM&V studies in progress, divided between the three primary research areas of Residential, Non-Residential and Cross-Cutting. Each study can have as many as eight stages from draft scope to survey instruments to draft and final reports.

Deliverables: EEAC consultant-only deliverables include Council presentations, monthly activity reports and briefings. Joint EEAC consultant/PA work products include interim reports, webinars, and monthly status reports.

Timeline: Due to the strategic staggering of studies, oversight of study implementation is expected to occur throughout 2014.

Oversee EM&V Reporting

This task involves overseeing the development and dissemination of interim and final reports on EM&V studies. Final EM&V reports in Massachusetts generally need to go through multiple drafts, as various stakeholders provide comments that must be processed collaboratively. This task also encompasses overseeing the incorporation of impact evaluation results into the TRM.

Deliverables: EEAC consultant-only deliverables include Council presentations, monthly activity reports and briefings. Joint EEAC consultant/PA work products include final reports, webinars, and monthly status reports.

Timeline: Due to the strategic staggering of studies, oversight of EM&V reporting is expected to occur throughout 2014.

Council and Stakeholder Engagement

This task includes working with the Council, individual Councilors, and stakeholders, both to incorporate their input into EM&V plans and reports and to brief them on study results through presentations and other forms of outreach.

Deliverables: Council and stakeholder engagement may take the form of in-person presentations, webinars, or one-on-one briefings by phone or e-mail, as needed.

Timeline: Due to the staggering of studies, and because Councilor and stakeholder engagement may be needed throughout the study planning, implementation and reporting process, this function is expected to occur throughout 2014.

EM&V Policy Issues

This task involves advising the Council, individual Councilors and state agencies on EM&V aspects of policy issues. Some examples of EM&V policy issues we anticipate needing to work on in 2014 include the following.

- EM&V aspects of the overall planning and reporting framework
- EM&V protocols and the role of the Northeast EM&V Forum
- Response to EM&V-related orders and decisions by the DPU
- Helping to execute EM&V-related aspects of Term Sheet agreements
- Providing EM&V support for the development of the next Three-Year Plan

Deliverables: Monthly activity reports, Council presentations and briefings.

Timeline: The timing of EM&V policy issues in the Commonwealth tends to be driven by external factors, ranging from the timing of DPU decisions and PA responses to them, to directions from the Council, to initiation of new planning and protocol efforts by the Northeast EM&V Forum. As a result, while work on this task is expected to be intermittent, we anticipate that it is likely to occur throughout the year.

PLANNING AND ANALYSIS

CONTEXT

Our work in the area of planning and analysis is primarily focused on several important outcomes.

- Achieving or exceeding the 2014 and the Three-Year (2013-2015) savings and benefits goals, including making up for the 2013 shortfall
- Increasing the savings and benefits of the portfolio across all of the PAs
- Developing a strategic vision for the future, in order to identify and implement crucial adjustments to the energy efficiency picture in Massachusetts
- Planning ahead to ensure effective program and portfolio performance and the achievement of high goals in future years

To work towards and facilitate these outcomes, we will work in the four major areas described below.

WORK AREAS

Participate in EEAC Meetings; Brief and Support the Council

Objective: Provide the Council with up-to-date information and analysis that helps Councilors understand issues and facilitates decision making.

Rationale: The monthly Council meeting is the one place where all Councilors meet and consider new ideas, review Plan progress, and plan for the future. It is a very efficient way of communicating and generating a feedback loop that conveys our Team's activities and provides Councilors the opportunity to respond and comment.

Supporting Tasks

- Prepare for and attend Council meetings (including Executive Committee meetings) to report to the Council on key activities and progress towards achievement of the Council's priorities and to receive feedback on Consultant Team direction.
- Provide independent technical support during Council and Executive Committee meetings on all areas of energy efficiency program planning, progress towards achieving the goals, policy development, program design and implementation, and reporting and tracking of results, including progress towards the 2014 and Three-Year Plan goals.
- Provide regular monthly reports to the Council on all activities in which the Team engages.

Deliverables: Presentations, reports, and updates to the Council either for the Council or Executive Committee meetings or separately; oral briefings for individual councilors generally

in advance of the Council meeting; coordination information for weekly coordination calls with DOER as chair of the Council; and consultant monthly reports to the Council.

Timeline: Monthly for document preparation, attendance at the Council and Executive Committee meetings, and oral briefings; weekly for the coordination calls with DOER as chair of the Council; and monthly for the consultant monthly reports.

Support the Council on Regulatory Issues and DPU Proceedings

Objective: Provide Councilors with readily understood information on the wide range of DPU proceedings.

Rationale: DPU proceedings progress on an independent trajectory from the Council's internal workings and interactions with the PAs, yet can have significant repercussions on how the goals of the enabling legislation and the Three-Year Plans are pursued.

Supporting Tasks

Track, monitor, review, summarize, and present to the Council information on all relevant DPU proceedings affecting energy efficiency, including but not limited to the following:

- DPU 11-120 Phase II, including the reporting streamlining working group, the development of the data requirements and formats for the revised Plan-Year Reports and for the 2013-2015 Performance Term Report
- DPU 14-05, for the application of the new avoided cost values from the 2013 AESC study to the 2013-2015 Plan
- Revised performance incentive model for 2014-2015 in conjunction with or following from DPU 14-05 and the application of the 2013 AESC avoided costs
- DPU proceeding to establish values for environmental compliance costs
- DPU 11-120 Phase I, to explore how best to determine net savings and an appropriate savings basis to account for multi-year time horizons and market effects
- DPU proceeding reviewing the 2011 and 2012 Annual Reports
- DPU 08-50, related to completion of the bill impact model

Deliverables: Deliverables related to the DPU proceedings or on regulatory issues are dependent on the nature of the DPU proceeding or the regulatory process. In general, the deliverables include an input document or review comments on draft documents or proposals from the PAs or stakeholders (e.g., review comments on the revised draft Plan-Year reporting format), comments or presentations during the DPU proceeding or process, and review comments on any draft DPU guidelines or other documents towards the end of the process.

Timeline: The timelines for consultant work related to the DPU proceedings or on regulatory issues are dependent on the timing of the DPU proceeding or the process for addressing the regulatory issues (e.g., the timeline for consultant work may depend on a DPU procedural schedule). We will work toward having input documents to Councilors at least four business days ahead of the formal meetings or deadlines and summary information within four business

days after. Our ability to meet these deadlines is often dependent on other information. We will keep the Council informed where our timeline is affected by events outside of our control.

Provide Technical Analysis

Objective: Provide the Council with technical support on studies and proceedings that directly affect the success of the Three-Year Plan, including on forecasts, economics, and the Technical Reference Manual.

Rationale: Several areas of technical effort contribute to the planning, analysis, design and implementation of efficiency programs in Massachusetts. In addition, there are many external factors and contexts that are relevant, such as the broader energy policy landscape in the Commonwealth. As a result, the Council requires concise, meaningful, targeted technical information on a variety of topics to support their deliberations and decision-making.

Supporting Tasks

- Prepare the RFP for the 2014-2015 Regional Avoided Energy Supply Component (AESC) study
- Consider issues in applying the 2013 AESC for 2014 and 2015 program years, including analysis of the implications of the new avoided costs on benefits and net benefits for 2014 and 2015.
- Analyze cost-effectiveness screening, assessment of benefits and costs, application of EM&V results and field experience, and improvements for common screening tools.
- Contribute to ISO-NE EE forecasting, ensure the consistent and appropriate treatment of EE, and assess the work of the ISO-NE EE Forecast Working Group.
- Develop reporting and tracking of the Three-Year Goals and EE for the Clean Energy and Climate Plan (CECP), including impacts of EE programs and other EE strategies on the 2020 CECP goals.
- Analyze utility bill impacts
- Review, comment on, and contribute to the Technical Reference Manual (TRM)
- Review, comment on, and contribute to the development of an interim data system (for use until the statewide database is developed).

Deliverables: For each Technical Analysis task, the deliverables may vary but generally include some or all of the following:

- Input documents or review comments on draft documents or proposals from the PAs or stakeholders (e.g., review comments on the analysis and implications of using the new 2013 AESC values for 2014 and 2015)
- Outcomes of discussions with the PAs and with the PAG group in particular (commonly communicated in the coordination updates from Rich May, in PAG meeting notes, and/or in the consultant monthly report)

- Comments or presentations during the meetings with PAs, stakeholders, and individual councilors
- Review comments on any revised draft documents towards the end of each Technical Analysis process.

Timeline: The timelines for consultant work related to Technical Analysis tasks above are dependent on the timing of each Technical Analysis process. For example, the review of issues in applying the 2013 AESC values for 2014 and 2015 program years will likely be completed in Q1, while the development of the RFP for the 2014-2015 AESC study will likely be completed in Q2 or Q3. We will work toward having our input documents or presentations ready within four business days of deadlines or meetings and summary information reported back to Councilors within four business days. Our ability to meet these deadlines is often dependent on other information. We will keep the Council informed where our timeline is affected by events outside of our control.

Track and Report on the Implementation Update and Planning Process

Objective: Provide the Council with up-to-date information on the PAs process to update the current Three-Year Plan

Rationale: It is important for the Council to understand mid-term progress toward goals so that it can provide guidance on priorities for corrective action.

Supporting Tasks

- Conduct planning and review for the 2014 Implementation Update and assess potential adjustments for the balance of the Three-Year Plan (2014-2015).
- Review and assess the forward-looking 2014 Implementation Update, including PA-anticipated adjustments for 2014-2015 in order to achieve the three-year goals (2013-2015). Provide consultant comments to the PAs on the initial draft, and provide findings and recommendations to the Council, including findings based on further assessment and review of the 3-5 “deeper-dive” topics.
- Review and analyze any Mid-Term Modifications (MTMs) for 2014-2015.
- Participate and facilitate strategic planning with the Council in order to understand higher level direction and key areas of concern in an effort to get ahead of issues affecting the creation of the next Three-Year Plan.
- During 2014, prepare for the 2016-2018 Three-Year Plan, including by identifying data and information needs, and by assessing and compiling the data needed early in the planning process.

Deliverables: The main set of planning-related deliverables in this work area is for the Implementation Update. The main deliverables will be initial review comments to the PAs on the Update, a set of review comments to the Council, presentations and comments to the Council on the “deeper-dive” topic when they are determined, and a review memo with recommended Council actions towards the end of the process.

Timeline: The Implementation Update work will begin in March and continue through Q2. Depending on the subject matter of the “deeper-dive” topics, the work may be carried out in this category or in concert with other parts of the Consultant Team.

RESIDENTIAL AND LOW INCOME SECTORS

CONTEXT

With the general success of the PAs in achieving statewide residential and low income goals for 2013, our focus for this sector in 2014 will be on 1) implementing continuous improvements to achieve deeper savings and improve cost efficiency and customer access to existing program offerings, and 2) identifying innovative approaches to consider for incorporation in the 2016-2018 plan. To work toward achievement of these objectives, the Team will draw on data and best practices to make recommendations to the Council. Described below, the supporting tasks for each of the objectives are a mix of broad areas of effort and discrete tasks. The former allows us room to pursue opportunities that may not have been specifically anticipated at the beginning of the year, while the latter focuses the Consultant Team on specific deliverables that we believe are necessary to achieve the objectives.

WORK AREAS

Residential Whole House and Low Income Programs

Objective: Continuous improvement of these programs, with a focus on using data and best practices to achieve deeper savings, increase cost efficiency, enhance coordination and integration, and improve the customer experience.

Rationale: The residential whole house and low income programs are the Consultant Team's strong focus for continuous improvement for several reasons.

- The program designs for HES and multifamily retrofit, while still relatively new, have enough of an established track record to support assessment leading to improvements.
- Each of the programs is comprehensive and complex (e.g., trade partners play a prominent role) and offer unique opportunities for deep savings.
- Differences in various PA markets are more evident for the whole house programs, and therefore there is an ongoing opportunity for best practices information exchange and coordination between the low income and non-low income programs.

Home Energy Services Initiative

- Identify existing data sources (e.g., RCS, QA/QC data, annual report information and data collected for evaluation) and note unfulfilled data needs to be met through database
- Develop performance indicators to measure achievement of deeper savings
- Identify best practices for achieving deeper savings, which may include measuring and improving contractor performance and home performance program delivery
- Assess cost efficiency and provide recommendations for improvements

- Prepare recommendations for how data may be used to increase depth and breadth of savings

Deliverables: General progress for each of these subtasks will be reported in the monthly reports to the Council, with the consultants bringing any issues meriting more careful consideration by the Council in separate memoranda. A comprehensive report of outcomes for each of these subtasks will be provided to the Council and summarized in an oral presentation to the Council.

Timeline: Supporting tasks will be undertaken in Q1 and Q2 with the report completed by May 31 and results presented at the June 10 Council meeting.

Multifamily Retrofit Initiative

- Identify existing best practices among the MA PAs including the Low Income multifamily program and seek statewide adoption where appropriate
- Recommend program enhancements to improve customer experience
- Identify best practices for Res/C&I integration and program delivery

Deliverable: General progress for each of these subtasks will be reported in the monthly reports to the Council, with the consultants bringing any issues meriting more careful consideration by the Council in separate memoranda. A comprehensive report of outcomes for each of these multifamily retrofit subtasks will be provided to the Council and summarized in an oral presentation to the Council

Timeline: Supporting tasks will be undertaken primarily in Q2 and Q3 with the report completed by July 31 and presented at the August 12 Council meeting

Low Income

- Monitor progress of low income program and facilitate coordination and best practices information exchange with comparable non-low income initiatives

Deliverable: General progress for each of these subtasks will be reported in the monthly reports to the Council, with the consultants bringing any issues meriting more careful consideration by the Council in separate memoranda. Appropriate findings will be included in reports and presentations noted above for HES and multifamily retrofit

Timeline: Attendance at Low Income Best Practices Working Group and Residential Management Committee meetings will be ongoing

Residential Products Program

Objective: Continuous improvement, with a focus on advancing new technologies

Rationale: Lighting continues to dominate the electric residential products program. The rapid advancement and declining prices of LED technology pose opportunities for accelerated adoption. At the same time all PAs are challenged by the consistent shift and increase in baseline for products like heating and cooling equipment and consumer electronics. With the benefit-cost ratio for gas heating equipment getting closer to 1.0, identifying new gas energy saving technologies is especially important to maintaining gas savings.

Supporting Tasks

- Accelerate transition to LEDs in all residential initiatives, including by leveraging direct install bulk procurement to support LED technology where superior and offering greater lifetime savings
- Conduct ongoing review of lighting and consumer products initiatives, recommending enhancements when appropriate
- Monitor work of MTAC and other PA pilots and support statewide adoption where appropriate
- Identify new residential technologies, especially for gas savings, and support through all applicable residential and low income programs

Deliverable: General progress for each of these subtasks will be reported in the monthly reports to the Council, with the consultants bringing any issues meriting more careful consideration by the Council in separate memoranda. A more comprehensive report will be provided to the Council and summarized in an oral presentation to the Council

Timeline: Supporting tasks will be ongoing, with the report to the Council completed by October 31 and presented at the November 12 Council meeting

Innovative Strategies

Objective: Advance innovative strategies and approaches to support development of the next Three-Year Plan

Rationale: The final two years of the current plan provide an important opportunity for assessing and testing new strategies and approaches for 2016-2018. Execution of the tasks under this objective will focus more heavily on work with individual PAs than the other objectives to determine savings potential and ease of implementation before moving toward statewide adoption.

Supporting Tasks

- Advance innovative approaches for behavior and customer engagement
 - Develop pilot for combined electric and gas behavior reports for customers
 - Identify alternative behavior program approaches
 - Prepare best practices report on comprehensive customer engagement strategies
- Assess a net zero energy policy/approach for 2016-2018 plan
- Conduct ongoing assessment of emerging program approaches nationally, recommending more careful consideration (such as pilots) where appropriate

Deliverable: General progress for each of these subtasks will be reported in the monthly reports to the Council, with the consultants bringing any issues meriting more careful consideration by the Council in separate memoranda. A more comprehensive report (combined with the report

on the residential products program) will be provided to the Council and summarized in an oral presentation to the Council

Timeline: Supporting tasks will be ongoing, with the report to the Council completed by October 31 and presented at the November 12 Council meeting

COMMERCIAL AND INDUSTRIAL

CONTEXT

Representing nearly 70% of the portfolio electric goals and 50% of portfolio gas goals, Commercial and Industrial (C&I) programs have a critical role in achieving the Commonwealth's overall energy efficiency goals. In 2013, the first year of the 2013-2015 Energy Efficiency Plan, approximately 80% of these C&I goals were achieved leading to shortfalls in overall portfolio achievement. The C&I Consultant Team's primary focus in 2014 will be on making up this 2013 shortfall and facilitating achievement of 2014/2015 goals through continuous improvements and innovations. Below we have provided our primary objectives to achieve this outcome supported by specific tasks our Team will undertake.

WORK AREAS

Deeper Savings in All Programs

Objective: Achieve deeper savings in all programs with a focus on retrofit programs for small, medium, and large customers.

Rationale: Achieving deeper savings per customer is an important objective to achieve current and future savings goals.

General

- Identify existing data sources (e.g., C&I Customer Profile Study, other EM&V studies, individual PA databases, etc.) that can be used to track progress towards deeper savings in each program
- Identify definitions and indicators that will be tracked and reported against to show progress towards deeper savings
- Report to Council on progress towards deeper savings, recommend actions to improve

Deliverable: Memo to Council recommending definitions and indicators and data sources to be used to track progress towards deeper savings in each program, Council presentation(s), monthly report(s), and/or Memo's reporting on progress towards deeper savings based on agreed up definitions and indicators developed as part of previous two steps.

Timeline: Memo to be delivered by April 1, 2014, other items as agreed upon and directed by Council

Small Business Retrofit Program

- Drawing from our knowledge of the small business program and forthcoming Small Business Process evaluation, identify recommendations to improve the depth and comprehensiveness of small business projects and facilitate adoption of those recommendations by PAs

- Implement Small Business Depth of Savings Best Practice Study to identify best practice direct install measures from other jurisdictions (Complete Q4 2014)

Deliverables:

- Memo to Council and PAs with recommendations to improve depth and comprehensiveness of small business projects
- Memo to Council on which recommendations will be adopted or not, by PAs. If recommendations are not adopted, Memo will provide reasons PAs are not adopting recommendations.
- Joint Consultant/PA Report on Small Business Program Best Practices with focus on depth of savings, including recommendations for program enhancements.

Timeline: Initial Memo on recommendations by July 1, 2014. Following Memo with PA response by August 1, 2014. Report by December 31, 2014.

Large Business Retrofit Program (including medium-sized customers)

- Facilitate development of comprehensive segment approaches (see below) that achieve deeper savings

Deliverable & Timeline: See below section on Comprehensive Segment Strategies

Comprehensive Segment Strategies

Objective: Develop formal, comprehensive segment strategies for key market segments including but not limited to Healthcare, Commercial Real Estate, Manufacturing, and Hospitality.

Rationale: Segmentation analysis and development of customized segment strategies is a needed evolution in the PAs programs to meet current and future goals.

General

- Utilizing Point 380 and other segmentation analysis, identify target segments to develop statewide Comprehensive Segment Strategies. Facilitate development of process and timelines for development of those strategies.
- Work with the PAs to define and formalize the components of a “Comprehensive Segment Strategy” including but not limited to: segment characterization, barrier analysis, outreach strategies, marketing strategies, incentive strategies, measure strategies, staffing, and segment targets/goals.
- Facilitate creation of a structure to support development and implementation of strategic statewide segmentation strategies.

Deliverables:

- List of segments for which comprehensive statewide segment strategies will be developed
- Agreed upon components of a “Comprehensive Segment Strategy”

- A committee, subcommittee, or other forum responsible and accountable for development of statewide segment strategies.

Timeline: The Consultants have been in continuing discussions with the PAs regarding the lack of a statewide strategic planning forum to bring forward and develop statewide strategic planning concepts such as statewide comprehensive segment strategies. A recent breakthrough was made and the PAs have agreed to hold such a forum in the April timeframe. The Consultant Team is proposing statewide segmentation strategies as a major focus of this meeting. We do not yet know whether the deliverable for this task will be complete as a part of this strategic planning meeting, or an offshoot of this meeting. Regardless, we expect the list of segments to be developed by May 1, 2014. We will keep the Council up to date on progress towards this task through our monthly reports and regular interactions with DOER and Councilors.

Healthcare

- Develop and conduct a Healthcare Sector Best Practice Study (Complete Q2 2014) to inform development of a Healthcare segment strategy.
- Work closely with PAs in development of Healthcare segment strategy.

Deliverables: Joint Consultant/PA Report on Healthcare Sector Best Practices including recommendations for program enhancements; comprehensive Segment Strategy for Healthcare

Timeline: Report by June 30, 2014; comprehensive strategy dependent on PAs, target is December 31, 2014.

Commercial Real Estate

- Work closely with PAs in development of Roadmap/Segment Strategy for Commercial Real Estate.

Deliverable: PA Roadmap and coinciding Comprehensive Segment Strategy for Commercial Real Estate.

Timeline: Dependent on PAs, target is July 31, 2014.

Manufacturing

- Work closely with PAs in development of a Segment Strategy for Manufacturing, including strategies that meet the needs of small, medium, and large sized manufacturers.

Deliverable: Comprehensive Segment Strategy for Manufacturing.

Timeline: Dependent on PAs, target is September 30, 2014.

Hospitality

- Implement Hospitality Best Practice Study (Complete Q3 2014) to inform development of Hospitality Sector segment strategy.
- Work closely with PAs in development of a Segment Strategy for Hospitality.

Deliverable: Joint Consultant/PA Report on Healthcare Sector Best Practices including recommendations for program enhancements; comprehensive Segment Strategy for Hospitality

Timeline: Report to be provided by September 30, 2014; comprehensive strategy is dependent on PAs, target is December 31, 2014.

Coordination and Partnerships

Objective: Facilitate coordination and partnerships between PAs and stakeholders as a means to expand the reach of the programs and achieve greater savings

Rationale: Leveraging partners that have aligned objectives is an important strategy to cost-effectively expand the reach of the PA's programs to more customers.

- Facilitate the development of value-based partnerships between PAs and partners or stakeholders with aligned objectives. (e.g. Healthy Hospitals Initiative, Health Care Without Harm, Massachusetts Manufacturing Collaborative, etc.)

Deliverable: Improved relationships and leveraging between PAs and identified stakeholders as directed by DOER and Council. For an example of where the Consultant Team has done this in the past, consider recent improved relationship and leveraging between DEP and PAs.

Timeline: Ongoing

Innovative Strategies

Objective: Advance innovative strategies and approaches to achieve the Commonwealth's goals

Rationale: The Commonwealth's high savings goals in a state with long-standing programs necessitate innovative new approaches to achieve savings goals.

Supporting Tasks

- Apply the successful "upstream" C&I lighting approach to more markets and technologies, including gas space heating equipment, water heating equipment, and commercial kitchen equipment.

Deliverable: Upstream approach applied to additional technologies including gas space heating equipment, water heating equipment, and commercial kitchen equipment.

Timeline: Dependent on PAs. Target dates for Consultant Team are by September 30, 2014 for gas heating and water heating equipment, and by December 31, 2014 for commercial kitchen equipment.

- Support PAs in development and implementation of the new Pro Forma Economic Analysis Tool as mechanism to improve selling of projects, achieve higher close rates, and support negotiated incentive methodology.

Deliverable: Pro Forma economic analysis tool that is integrated into PA sales.

Timeline: First phase of integrating into PA project sales complete by May 1, 2014. There will be ongoing support beyond this as Consultant Team vision is to integrate tool into all projects and systems.

- Complete the Retro-Commissioning Best Practice study and work with PAs to adopt resulting recommendations.

Deliverable: Joint Consultant/PA Report on Retro-Commissioning Best Practices including recommendations for program enhancements.

Timeline: Report to be provided by April 1, 2014.

Achieve Greater Savings Earlier in the Year

Objective: Identify and implement strategies to achieve greater savings earlier in the year to reduce the “hockey stick” effect of C&I programs

Rationale: The very large percentage of C&I portfolio savings occurring in the last 1-2 months of the year increases the uncertainty of achievement and creates a “firestorm” at the end of the year that strains resources, sets bad precedents, inhibits the ability of programs to plan and manage in a strategic and balanced way, and leaves the programs in a poor position leading into the following year. C&I programs must find ways to achieve greater savings earlier in the year.

Supporting Tasks

- Develop list of strategies, changes to programs, or enhancements that will lead to achieving greater savings earlier in the calendar year
- Facilitate PAs in implementing identified strategies

Deliverable: Memo, report, or presentation to Council on strategies and enhancements that will be implemented to achieve greater savings earlier in year.

Timeline: By June 1, 2014

MONITORING, COORDINATION, AND CROSS-CUTTING TASKS

CONTEXT

This set of tasks is where the Project Manager and Advisory Group Coordinators create cohesive Team understanding on a wide variety of issues. Through the process of monitoring the status of programs, coordinating our internal efforts, and managing where to focus our attention within budget, we will ensure that we are efficient, consistent, and thorough in our positions, messaging, and communication with the Council, the PAs, and other stakeholders.

The Commonwealth has many parties interested in energy efficiency and “clean tech” in general, including the Councilors themselves. The combination of multiple stakeholder groups, 11 PAs, and many implementers and contractors means that the Consultant Team must remain vigilant in understanding the many positions that exist so we may assist the Council as it considers them. Much of the information that we track and analyze is directly tied to Councilor requests. We cannot track everything and must often decide as a Team which topics fit the priorities and spirit of the Workplan and which do not. We do this work through internal coordination calls and through email discussions. Our positions are checked against both Councilor and PA interests during Council meetings and in communication with individual Councilors.

Other tasks that we engage in throughout the year require the participation of nearly our entire Team. These include our efforts to review, analyze, and summarize the PAs’ reporting on their program accomplishments; the creation of a statewide efficiency database, and our efforts to begin laying the groundwork for the 2016-2018 Three-Year Plan.

WORK AREAS

Monitor and Advise Current Programs

Objective: Maintain our understanding of the programs, barriers and emerging practices through communication and feedback loops with the PAs

Rationale: Interacting with the PAs is a recurring theme across our Team. It is a critical element of executing the requirements of the Consultant RFR and it enables us to effectively advise the EEAC about the programs and to identify opportunities for improvement in program design and delivery.

Supporting Tasks

- Attend quarterly meetings with PA leads and regularly scheduled Management Committee and Planning & Analysis Group meetings
- Maintain strong, collaborative relationships with key PA staff
- Participate in meetings and/or individual calls with PAs on a regular basis to maintain solid understanding of programs, progress, and barriers and to discuss priority topics
- Represent Council interests in all PA interactions

Deliverables: Agenda item suggestions for all meetings attended; review program performance through anecdotal, statistical, or qualitative information and analyze and respond with written comment, report or memo; provide applicable or summarized information to the EEAC as part of feedback loop or direct presentation.

Timeline: This work is ongoing.

- The C&I and Residential leads attend bi-weekly meetings, roughly three out of four in person. The meetings last about six hours and most of the consultant time is split between tasks on monitoring and understanding programs and the other tasks listed elsewhere in the Workplan.
- The EM&V consultants, depending on subject matter and relative work load, participate in a bi-weekly two and a half hour meeting by phone, and three to four times per year attend in person.
- The Planning and Analysis lead and Project Manager attend a monthly meeting for two to three hours in person if possible, but it is always scheduled around other meetings or events that bring the team to Boston.

Coordinate with the Council on Programs and EM&V Results

Objective: Ensure effective feedback throughout the Consultant Team; between the evaluation regime, the PAs and the Council; and between the Team and the Council.

Rationale: The continued importance of evaluation in the Commonwealth's efficiency programs creates an opportunity for unprecedented levels of learning and feedback from evaluation activities to implementation strategies and back to evaluation planning.

Supporting Tasks

- Review, use, and provide feedback on the most important evaluation studies and results
- Keep the Council updated with information gleaned from evaluation efforts that assists in understanding current programs and provides the groundwork for future planning
- Coordinate information and understanding gathered from all on-going work of the Consultant Team across planning, implementation, and evaluation

Deliverables: Internal communications and communications with the PAs is mostly via email. Communications with the EEAC and other stakeholders are described in the EM&V and Planning sections of this Workplan.

Timeline: As described in the EM&V and Planning sections of this Workplan, the deliverables are spread throughout the year and are quite variable.

Review and Assess PA Reports and Data

Objective: Provide the Council with objective analysis and Consultant Team opinions on PA reports and data

Rationale: The data and reporting submitted throughout the year by the PAs is voluminous, complex, and disaggregated across 11 PAs. Over the past several years, the Consultant Team has developed tools and strategies to quickly sort, analyze, synthesize, and summarize these data. These summaries have been instrumental in identifying critical issues and notable trends in the performance of the PAs and their programs, many of which have resulted in new Council priorities for the future.

Supporting Tasks

- Review, analyze, and assess the PA reports and reporting, including the monthly dashboards, quarterly reports, and annual (plan-year) reports, and provide consultant findings and recommendations to the Council.
- Use the PA reporting to assess and report to the Council on the status of program achievement towards the 2014 and Three-Year Plan goals and related topics.
- Work with the PAs to design and implement further improvements to the PA reports in response to councilor feedback; forward-looking projections and forecasts to the standard PA reports; and trend comparisons in the reports, including comparisons to the same time periods in prior years.

Deliverables:

- Input documents or review comments on draft documents or proposals from the PAs or stakeholders (e.g., review comments on the analysis and implications of using the new 2013 AESC values for 2014 and 2015)
- Outcomes of discussions with the PAs and with the PAG group in particular (commonly communicated in the coordination updates from Rich May, in PAG meeting notes, and/or in the consultant monthly report)
- Comments or presentations during the meetings with PAs, stakeholders, and individual councilors
- Review comments on any revised draft documents towards the end of each Technical Analysis process.

Timelines: The timeline for this work is dependent on the timing of each report and review process, e.g., monthly for monthly dashboards, quarterly for quarterly (Q) reports, annually for annual or Plan-Year reports, and periodically (generally monthly) related to the PAG meetings.

Support the Statewide Database

Objective: Provide the Council with an objective review and support of the database creation process.

Rationale: Given the importance, large scope, and visibility for the Council, this cross-cutting task will be tracked separately as a single objective over our entire Team's collective efforts.

Supporting Tasks

- Participate in the EEAC Database Committee and the Database Working Group

- Work directly with the database consultants as needed
- Provide the EEAC with an objective review and advice on database process, database consultant deliverables
- Assist with developing an RFP scope and review requirements for database implementation contractor

Deliverables: Memos, reports, email reviews on the tasks described above, as needed and instructed.

Timeline: Dependent on database process as it moves forward. No firm deadline for the database work has been set.

Prepare for the 2016-2018 Plan

Objective: Develop the foundation for planning for the 2016-2018 Three-Year Plan

Rationale: Ensuring effective program and portfolio performance and the achievement of high goals in future years will require preparation during 2014 to support the detailed and involved process of setting the next set of targets for efficiency in Massachusetts.

Supporting Tasks

- Identify data and information needs
- Begin compiling and analyzing data

Deliverables: Deliverables associated with preparing for the 2016-2018 Plan will include consultant memos or documents on data needs and necessary analysis, and the proposed process and schedule for Plan development.

Timeline: The majority of the work preparing for the 2016-2018 Plan will be completed in the latter third of 2014—September through December—with some initial work flowing from lessons learned and data needs and analysis identified through the Implementation Update in Q2. As with many of the 2014 tasks, the team will be considering and compiling EM&V information as it pertains to assumptions applicable to the next Three-Year Plan.

TECHNICAL SERVICES

OBJECTIVE

In this set of tasks, our Team will organize and undertake the various EEAC administrative, communication and technical services. The results of this work will be an effective and professional public face of the EEAC.

WORK AREAS

Inventory and Organize Recurring Technical Services

Perform an inventory and organize all current recurring technical services. This work will eliminate unnecessary or redundant activities and establish a clear process and schedule for each of the ongoing activities.

Deliverable: Process map and master schedule for all recurring technical services.

Timeline: May 1, 2014

Produce Minutes from all EEAC Meetings

We will ensure that minutes are collected from all meetings subject to the open meeting law and that these minutes are circulated for comment, corrected, and issued in final form for posting to the EEAC website.

Deliverable: Draft Minutes and EEAC approved Minutes for each EEAC meeting and EEAC Executive Committee Meeting.

Timeline: Draft Minutes will be taken by the team designee and distributed to the EEAC chair one week after the EEAC meeting. Final minutes will be posted to EEAC website within two days after the EEAC meeting in which they are approved.

Develop EEAC Logo

A revitalized communications program for the Energy Efficiency Advisory Council should begin a new logo that reflects EEAC's goals, caliber and character. The logo will provide a cohesive graphic marker for the new website and print materials. The EEAC logo will complement the DOER and Commonwealth of Massachusetts logos.

Deliverables:

- A written Design Brief for the logo, to be reviewed and approved by an *ad hoc* leadership group
- Presentation of three to five logo options that reflect the criteria defined by the Design Brief. Final logo choice to be made by leadership group.
- Finalized logo files in multiple formats
- Using the new logo produce electronic templates for PowerPoint presentations, letterhead, memos and reports

Timeline: The due date for these tasks will be April 30, 2014. The team will report back on progress to the EEAC. Our ability to meet this deadline is dependent on the Council decision

making process. We will keep the Council informed where our timeline is affected by events outside of our control.

Website Upgrade

We propose a redesign of the current website to provide a robust content-management foundation, a user-friendly search function and a contemporary look and feel. Existing content may be reorganized with the goal of making navigation more intuitive. Based on input from the leadership group, we will develop a set of user-focused goals and recommend the best combination of technical tools to build the site. The upgrade of the EEAC website will be informed by the EEAC logo development task.

Content will be based on the existing website, with updates, organizational suggestions and edits recommended by our website design firm, Cahoots.

The site layout will be based on a high quality content management system template. An alternative to a thoroughly customized site, a template approach allows for a wide array of features, including responsive functionality (automatic resizing for mobile phones and tablets) within a limited budget. We will recommend a template that matches the requirements of the site and provides a range of flexible page/feature layout options.

The upgraded EEAC website will result in:

- A fresh, relevant, easy-to-use website
- Responsive functionality, making the best use of new technologies
- Added content features to enrich the site
- Welcoming tone and appealing graphics

Deliverables:

- A written Strategy Brief for the site, to be reviewed and approved by the *ad hoc* leadership group
- A site map, showing the recommended organizational structure of the site, navigation hierarchies and links
- Design of two alternate homepage concepts, for review and approval by the leadership group
- Updated content and a clear, unified voice for text on the homepage and landing pages
- Selection of stock art resources (photography and/or illustration)
- Programming, testing and deployment of the website
- Ongoing maintenance of the website (posting recurring and new documents, creation of new pages as needed, etc.)

Timeline: All deliverables above completed by May 31, 2014. The logo development and the website upgrade will overlap for continuity and process efficiency purposes. An *ad hoc* EEAC leadership group will need to make timely decisions to move the processes forward. Our ability

to meet this deadline is dependent on the Council decision making process. We will keep the Council informed where our timeline is affected by events outside of our control.

Revise the Consultant Team Monthly Report

We will work with DOER and Councilors to develop a better means of communicating the results of the Consultant Team's effort and the connection between our efforts and tangible outcomes and work product. This will also facilitate timely and efficient completion of each monthly report. The new report template will provide the EEAC with a task- and deliverable-driven monthly report.

Deliverables: New consultant team monthly report template and the consultant team monthly reports

Timeline: New template March 31, 2014. Monthly Reports will be distributed four business days prior to each EEAC meeting.

Produce the Annual Report to the DPU and Legislature

We will produce a template for Annual Reports that makes each year's report consistent with past reports and simplifies the process of updating and producing the report in a timely fashion. The template will be used to develop the Year 2013 Annual Report. We will coordinate the contributions of the PAs, DOER, and other stakeholders to ensure that the Annual Report reflects the collaborative nature of energy efficiency accomplishments in Massachusetts.

Deliverables: Annual Report Template and the 2013 Annual Report to the legislature

Timeline: Report Template will be ready June 30, 2014 and the 2013 Annual Report to the Legislature will be finalized 45 days after the PAs submit their final 2013 Annual Reports.

BUDGET

Based on our experience working for the Council since 2009, we expect that the Council's priorities will evolve in the coming months and that unknown issues will arise that will require Council and Consultant Team attention. Historically, we have adapted to these changes by a combination of shifting effort within our original budget and requesting additional budget to cover extraordinary tasks or level of effort. We believe this will be an appropriate strategy for 2014 and beyond. In the event that conditions create the need for additional effort or a change in emphasis from our expectations, we will communicate with the Council and DOER as the contract manager to ensure clear understanding of how to ensure careful allocation of resources to all priorities. The tables below present our proposed work breakdown for 2014 within the proposed budget of \$1,469,550.

Furthermore, the budget contained in our formal proposal to DOER and the Council was based on our understanding of the priorities, needs, and tasks required of the Team in 2014 as of late November, 2013. In the nearly three months since that time, our understanding of these factors has changed in response to the Council's input and other factors. Below we list a few items that either may be under-budgeted or were not included in our proposed budget. These are not necessarily the only issues for which this may be true in 2014, just those that we are aware of at this time.

- A significant increase in the activity level of evaluation and the many tasks associated with integrating this important resource into program planning and design.
- The next version of the Avoided Energy Supply Cost Study, originally slated to begin in 2015, will likely now get underway in 2014.
- The potential for the penetration study outlined in the Term Sheet to evolve in to a larger study with broader scope than anticipated.

Of these, the only one for which we can provide an estimate of the likely level of effort is the AESC, based on our experience with this study in the past. Therefore, we are including a request for an additional amount of \$39,000 to cover AESC work in 2014.

SUMMARY BY ADVISORY GROUP

	Planning & Analysis	Residential	C&I	EM&V	Technical Services	Total	Add for AESC Study
Advisory Group Share of Cross Cutting Tasks	\$255,050	\$75,440	\$125,450	\$24,485	\$0	\$480,425	\$0
Advisory Group Direct Tasks	\$317,238	\$169,930	\$125,055	\$265,012	\$111,890	\$989,125	39,000
Total	\$572,288	\$245,370	\$250,505	\$289,497	\$111,890	\$1,469,550	\$39,000

SUMMARY BY TASK

	By Task	Amt.	Hours
Cross Cutting	Monitor and Advise Current Programs	\$105,050	586
	Coord w Council and EM&V	\$105,765	578
	Review Reports & Plans	\$139,815	825
	Statewide Database	\$55,560	309
	2016-18 Plan	\$74,235	460
	Sub-Total	\$480,425	2,758
Planning & Analysis	EEAC Mtgs & Council Support	\$110,534	617
	Regulatory Support	\$56,830	332
	Technical Analysis	\$102,874	627
	Implementation Update	\$47,000	250
	Sub-Total	\$317,238	1,825
Residential	Whole House	\$66,160	401
	Residential Products	\$49,470	294
	Innovative Approaches	\$54,300	330
	Sub-Total	\$169,930	1,025
C&I	Deeper Savings	\$31,150	166
	Segment Strategies	\$49,260	276
	Coordination & Partnerships	\$11,141	60
	Innovative Approaches	\$24,624	142
	Achieve Early Savings	\$8,880	48
	Sub-Total	\$125,055	692
EM&V	Planning	\$63,592	357
	Implementation	\$84,945	477
	Reporting	\$42,155	241
	EEAC/ Stakeholder Engagement	\$46,155	245
	Policy Issues	\$28,165	161
	Sub-Total	\$265,012	1,481
Technical Services	Inventory, Organize, Setup Process	\$9,100	60
	EEAC Meeting Minutes	\$10,045	88
	EEAC Logo/ Website Upgrade & Maintenance	\$56,485	542
	Consultant Team Report	\$18,320	112
	Annual Report	\$17,940	116
	Sub-Total	\$111,890	918
TOTAL		\$1,469,550	8,700
Add for AESC Study		\$39,000	240

EEAC Consultant Team Workplan for 2014

HOURS BY TASK AND STAFF

			Cross Cutting					Planning & Analysis			
Staff	Role	Monitor and Advise Current Programs	Coord w Council and EM&V	Review Reports & Plans	Statewide Database	2016-18 Plan	EEAC Mtgs & Council Support	Regulatory Support	Technical Analysis	Implementation Update	
Optimal Energy, Inc.	Eric Belliveau	Project Manager	36	96	176	36	48	140	76	116	150
	Eric Belliveau	Travel Time						72			
	Philip Mosenthal	C&I Core Member	66	24							
	Gabe Arnold	C&I Group Coordinator	156	48	40	60	40				
	Gabe Arnold	Travel Time	72								
	David Bardaglio	Technical Services Group Leader									
	David Bardaglio	Travel Time									
	Steven Bower	Planning and Implementation Subject Matter Expert				169	48			68	
	Steven Bower	Travel Time				18					
	Mike Guerard	Residential Subject Matter Expert									
	April Clodgo	Technical Services Core Member									
	Samuel Huntington	Residential Core Member					48			66	
	Samuel Huntington	Technical Services Core Member									
	Samuel Huntington	Travel Time									
	Jeffrey Loiter	Matter Expert			96						
	Clifford McDonald	Member			212		96				96
INDIVIDUALS	Paul Horowitz	EM&V		12							
	Paul Horowitz	Planning and Implementation Subject Matter Expert			27		48	7	100	100	
	Ralph Prah	EM&V Group Coordinator		100							
	Ralph Prah	Travel Time									
	Jeff Schlegel	Planning and Implementation Group Coordinator	36		190	8	80	300	150	141	100
	Robert Wirtschafter	EM&V Core Member		15							
	Ellen Zuckerman	Planning and Implementation Core Member			30		40	98	6	40	
AEC	Lori Lewis	EM&V Core Member		15							
Cahoots	Carol Lasky	Technical Services Subject Matter Expert									
	Anya Vedmid	Technical Services Subject Matter Expert									
Core	Margret Lynch	Residential Group Coordinator	106	48	18	6					
	Margret Lynch	Travel Time	48								
CX	Jennifer Chiodo	C&I Core Member		160							
	Jennifer Chiodo	EM&V Subject Matter Expert									
EFG	Glenn Reed	Residential Core Member	18	36	18		12				
JDM	Jack Davis	C&I Subject Matter Expert									
	Deborah Cloutier	C&I Subject Matter Expert									
	Erin Richmond	C&I Subject Matter Expert									
SRA	Courtney Moriarta	Residential Core Member	24	24	18	12					
	Courtney Moriarta	Travel Time	24								
LABOR TOTALS			586	578	825	309	460	617	332	627	250

HOURS BY TASK AND STAFF

		Residential			C&I				
Staff	Role	Whole House	Residential Products	Innovative Approaches	Deeper Savings	Segment Strategies	Coordination & Partnerships	Innovative Approaches	Achieve Early Savings
Optimal Energy, Inc.	Eric Belliveau	Project Manager							
	Eric Belliveau	Travel Time							
	Philip Mosenthal	C&I Core Member				24			
	Gabe Arnold	C&I Group Coordinator				126	96	60	54
	Gabe Arnold	Travel Time							
	David Bardaglio	Technical Services Group Leader							
	David Bardaglio	Travel Time							
	Steven Bower	Planning and Implementation Subject Matter Expert							
	Steven Bower	Travel Time							
	Mike Guerard	Residential Subject Matter Expert	36	24	24				
	April Clodgo	Technical Services Core Member							
	Samuel Huntington	Residential Core Member	36	36	36				
	Samuel Huntington	Technical Services Core Member							
	Samuel Huntington	Travel Time							
Jeffrey Loiter	Matter Expert								
Clifford McDonald	Member							47	
INDIVIDUALS	Paul Horowitz	EM&V							
	Paul Horowitz	Planning and Implementation Subject Matter Expert							
	Ralph Prah	EM&V Group Coordinator							
	Ralph Prah	Travel Time							
	Jeff Schlegel	Planning and Implementation Group Coordinator							
	Robert Wirtschafter	EM&V Core Member							
	Ellen Zuckerman	Planning and Implementation Core Member							
AEC	Lori Lewis	EM&V Core Member							
Cahoots	Carol Lasky	Technical Services Subject Matter Expert							
	Anya Vedmid	Technical Services Subject Matter Expert							
Core	Margret Lynch	Residential Group Coordinator	130	78	128				
	Margret Lynch	Travel Time							
CX	Jennifer Chiodo	C&I Core Member				16			41
	Jennifer Chiodo	EM&V Subject Matter Expert							
EFG	Glenn Reed	Residential Core Member	30	120	66				
JDM	Jack Davis	C&I Subject Matter Expert					60		
	Deborah Cloutier	C&I Subject Matter Expert					60		
	Erin Richmond	C&I Subject Matter Expert					60		
SRA	Courtney Moriarta	Residential Core Member	169	36	76				
	Courtney Moriarta	Travel Time							
LABOR TOTALS		401	294	330	166	276	60	142	48

HOURS BY TASK AND STAFF

			EM&V				
			Planning	Implementation	Reporting	EEAC/ Stakeholder Engagement	Policy Issues
	Staff	Role					
Optimal Energy, Inc.	Eric Belliveau	Project Manager					
	Eric Belliveau	Travel Time					
	Philip Mosenthal	C&I Core Member					
	Gabe Arnold	C&I Group Coordinator					
	Gabe Arnold	Travel Time					
	David Bardaglio	Technical Services Group Leader					
	David Bardaglio	Travel Time					
	Steven Bower	Planning and Implementation Subject Matter Expert					
	Steven Bower	Travel Time					
	Mike Guerard	Residential Subject Matter Expert					
	April Clodgo	Technical Services Core Member					
	Samuel Huntington	Residential Core Member					
	Samuel Huntington	Technical Services Core Member					
	Samuel Huntington	Travel Time					
	Jeffrey Loiter	Matter Expert					
Clifford McDonald	Member						
INDIVIDUALS	Paul Horowitz	EM&V	20	20	15	15	10
	Paul Horowitz	Planning and Implementation Subject Matter Expert					
	Ralph Prah	EM&V Group Coordinator	227	296	150	146	100
	Ralph Prah	Travel Time	8	8		8	
	Jeff Schlegel	Planning and Implementation Group Coordinator					
	Robert Wirtschafter	EM&V Core Member	30	45	22	22	15
	Ellen Zuckerman	Planning and Implementation Core Member					
AEC	Lori Lewis	EM&V Core Member	30	45	22	22	15
Cahoots	Carol Lasky	Technical Services Subject Matter Expert					
	Anya Vedmid	Technical Services Subject Matter Expert					
Core	Margret Lynch	Residential Group Coordinator					
	Margret Lynch	Travel Time					
CX	Jennifer Chiodo	C&I Core Member					
	Jennifer Chiodo	EM&V Subject Matter Expert	42	63	32	32	21
EFG	Glenn Reed	Residential Core Member					
JDM	Jack Davis	C&I Subject Matter Expert					
	Deborah Cloutier	C&I Subject Matter Expert					
	Erin Richmond	C&I Subject Matter Expert					
SRA	Courtney Moriarta	Residential Core Member					
	Courtney Moriarta	Travel Time					
LABOR TOTALS			357	477	241	245	161

HOURS BY TASK AND STAFF

			Technical Services					Add for AESC Study	
	Staff	Role	Inventory, Organize, Setup Process	EEAC Meeting Minutes	EEAC Logo/ Website Upgrade & Maintenance	Consultant Team Report	Annual Report	Total Hours	Hours
Optimal Energy, Inc.	Eric Belliveau	Project Manager						874	
	Eric Belliveau	Travel Time						72	
	Philip Mosenthal	C&I Core Member						114	
	Gabe Arnold	C&I Group Coordinator						728	
	Gabe Arnold	Travel Time						72	
	David Bardaglio	Technical Services Group Leader	40	22	62	40	16	180	
	David Bardaglio	Travel Time			12			12	
	Steven Bower	Planning and Implementation Subject Matter Expert						285	
	Steven Bower	Travel Time						18	
	Mike Guerard	Residential Subject Matter Expert						84	
	April Clodgo	Technical Services Core Member	20		96	24		140	
	Samuel Huntington	Residential Core Member						222	
	Samuel Huntington	Technical Services Core Member		44				44	
	Samuel Huntington	Travel Time		22				22	
	Jeffrey Loiter	Matter Expert				48	60	204	
Clifford McDonald	Member						451		
INDIVIDUALS	Paul Horowitz	EM&V						92	
	Paul Horowitz	Planning and Implementation Subject Matter Expert						282	120
	Ralph Prah	EM&V Group Coordinator						1,019	
	Ralph Prah	Travel Time						24	
	Jeff Schlegel	Planning and Implementation Group Coordinator						1,005	120
	Robert Wirtschafter	EM&V Core Member						149	
	Ellen Zuckerman	Planning and Implementation Core Member						214	
AEC	Lori Lewis	EM&V Core Member						149	
Cahoots	Carol Lasky	Technical Services Subject Matter Expert			225		32	257	
	Anya Vedmid	Technical Services Subject Matter Expert			147		8	155	
Core	Margret Lynch	Residential Group Coordinator						514	
	Margret Lynch	Travel Time						48	
CX	Jennifer Chiodo	C&I Core Member						217	
	Jennifer Chiodo	EM&V Subject Matter Expert						190	
EFG	Glenn Reed	Residential Core Member						300	
JDM	Jack Davis	C&I Subject Matter Expert						60	
	Deborah Cloutier	C&I Subject Matter Expert						60	
	Erin Richmond	C&I Subject Matter Expert						60	
SRA	Courtney Moriarta	Residential Core Member						359	
	Courtney Moriarta	Travel Time						24	
LABOR TOTALS			60	88	542	112	116	8,700	240