EERE Multi-Year Program Plan Guidance and Template

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Prepared by the Project Management Coordination Office (PMCO)

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Part I – Multi-Year Program Plan (MYPP) Guidance

1 About this Guidance

This document is an update to guidance that was issued in 2006 and serves to provide a template and best practices for Energy Efficiency and Renewable Energy (EERE) Program Offices to develop and maintain Multi-Year Program Plans (MYPPs) as part of their portfolio management process. Updates were based on interviews conducted with EERE Program Offices, as well as other S-4 Offices, including the Office of Electricity Delivery & Energy Reliability and the Office of Fossil Energy. Specific MYPPs and other program strategic documents that guide the operation of these offices were also examined.

The new MYPP Template included herein integrates best practices gleaned from these efforts. This document also reflects changes in terminology from the previous guidance and adds a section on program evaluation. The document was significantly streamlined from the previous version, while maintaining key focus areas.

2 MYPP Purpose and Process

Executive, Congressional and Departmental guidance underscores the need for effective multi-year planning. As such, it is imperative for EERE Program Offices to clearly articulate and communicate our plans and priorities, both internally and externally, through the creation of and regular updates to MYPPs. MYPP activities and priorities will flow from Departmental and EERE strategic guidance (e.g., the **Department of Energy 2014-2018 Strategic Plan** (http://www.energy.gov/downloads/2014-2018-strategic-plan), the **EERE 2016-2020 Strategic Plan and Implementing Framework** (https://powerpedia.energy.gov/wiki/File:EERE_2016%E2%80%932020_Strategic_Plan.pdf), the **S-4 FY2016 Science and Energy Plan** (http://energy.gov/sites/prod/files/2015/10/f27/SEP-book-10-7-2015.pdf), the **Quadrennial Energy Review** (http://energy.gov/epsa/quadrennial-energy-review-qer), the **Quadrennial Technology Review** (http://energy.gov/qtr), etc.) and will describe each Program Office's overarching goals, priority program thrusts, roadmaps, and prioritization methodologies in a clear and transparent way and align them in a coherent way to the Strategic Goals, Strategies and Success Indicators and EERE Investment Approach, as described in the EERE Strategic Plan. The EERE Investment Approach is intended to address specific gaps in the technology development pathway (i.e., areas where the private sector or other non-government stakeholders are unable to make the required investments to the scale or in the timeframe required for clean energy technologies to be commercialized).

The development of these well-defined priorities and approaches should be informed by extensive stakeholder engagement, such as through regular external workshops, peer reviews and merit reviews of our portfolios. The outputs of these portfolio reviews will be used by EERE to determine whether its investments (1) are working according to plan or are in need of improvements; and (2) are leading to impactful energy, economic, environmental, and energy security benefits. EERE will also use these reviews to determine what factors are most responsible for attained benefits and what lessons are offered to inform future investments.

MYPPs should align with EERE's mission, which is ***to create and sustain American leadership in the global transition to a clean energy economy.*** EERE achieves this mission through ***high-impact research, development and demonstration to make clean energy as affordable and convenient as traditional forms of energy.***

MYPPs are intended primarily to serve as operational guides for the Program Offices to manage their activities and as a source of information to help EERE management identify clear linkages between key program activities, priorities and progress toward goals as well as potential barriers and risks. Program Offices should also make them available to internal and external stakeholders.

Strategic planning within government programs is closely integrated with the budgeting cycle. Strategic planning enables Program Offices to create logical budgets and manage their activities toward programmatic and agency goals. An Office's MYPP should inform the Office's Funding Opportunity Announcement (FOA) plans, Lab Annual Operating Plans (AOPs), roadmaps and budget formulation. All of these efforts should be closely linked and aligned, as illustrated in **Figure 1**, below:

Figure 1. Cascade of Goals

The planning horizon for an MYPP should be five years (e.g., FY2016 - FY2020). The MYPP should present the pathways and activities that an Office will pursue over the five-year planning horizon toward achieving its goals and objectives based on reasonable expectations of technical advancements and market conditions. Ideally, Offices should write their MYPPs without the consideration of budget constraints. The MYPP should reflect what the Office needs to do to achieve its goals. Offices may wish to conduct separate scenario analyses to determine the sensitivity of their outputs to different budget levels.

Offices should assess their performance. Offices should undertake periodic performance assessments to monitor and evaluate progress.

- Quarterly: Evaluate project performance against baseline schedule, scope, and cost.
- Biennially: Conduct an In-Progress Peer Review (http://eere-intranet2.ee.doe.gov/document/peer-review-guidance) to provide decision making on future funding and direction.
- Periodically: Undertake Go/No-Go and comprehensive project reviews the individual project level to assess technical, economic, environmental, and market potential, as well as risk.

2.1 MYPP Update Frequency

MYPPs are living documents and, as such, should be updated on a regular basis. The plan should be refreshed every two to three years for the current five-year planning horizon. By the time the current version expires, the Office should

release a new MYPP that looks ahead to the next five years. The level of revision to the MYPP will change depending on changes in funding levels, administration, Departmental strategic goals, technologies, markets, programmatic changes, progress toward goals and/or realization of significant risks among other factors that affect the landscape in which the program operates.

MYPP Revision Timeline Example

Current MYPP Time Horizon: FY2017 - FY2021

- Update to existing FY2017-FY2021 plan: Late FY2019 or early FY2020
- New MYPP covering FY2022-FY2026: Release by late FY2021

Results from Office portfolio peer reviews, merit reviews and other types of portfolio reviews (e.g., Active Project Management activities) inform the MYPP process, thereby determining whether investments are working according to plan or are in need of improvements, and whether they are leading to impactful energy, economic, environmental, and energy security benefits. EERE will also use these reviews to determine best practices and lessons learned to inform future investments.

Recommended Practice: Using a Change Control Process for Updating MYPPs
It is strongly recommended that Offices use a **change control process** in updating their MYPPs. The use of a change control process enables Offices to clearly track what they are changing in the MYPP, and to reach consensus on the changes by a **change control board**.

For information or guidance on setting up a change control process or change control board, contact the PM Help Desk at PMHelpDesk@ee.doe.gov.

2.2 MYPP Process

The MYPP development process should be informed by extensive stakeholder engagement, such as through regular external workshops and expert peer reviews of Office portfolios. DOE's national laboratories should be integral to EERE's program planning process, including an Office's MYPP development. Stakeholders, industry partners, external technical experts and market actors should also be consulted and engaged in the development of the MYPP. Offices should also consider results of any prior impact evaluation activities when developing their MYPPs.

This Guide is intended to provide EERE Offices with flexibility in developing their MYPPs balanced with the need for consistency across EERE. Offices that wish to exclude any of the elements outlined in MYPP template should seek concurrence on their alternative plan from their Deputy Assistant Secretary and inform the Project Management Coordination Office (PMCO) for awareness.

Offices should feel free to add additional components to their MYPPs not specifically called for in this template where they feel appropriate. No additional concurrence is required for adding components.

If you have any questions regarding the MYPP process, to share any best practices or lessons learned, or to request training, please contact the PM Help Desk at PMHelpDesk@ee.doe.gov.

Part II – MYPP Template

Below is section-by-section guidance on development of an Office MYPP.

Figure 2, below, shows the structure of an MYPP.

For examples of current MYPPs, see **Appendix A**.

1 Executive Summary

The **Executive Summary** of the MYPP should succinctly summarize the key components of the MYPP. The recommended length is one to two pages. It should briefly introduce the Office, its goals and its structure, and should give an overview of the Office's portfolio, highlighting the Office's approach to research and development (R&D), major targets, critical paths, and potential risks and their proposed mitigation. Offices are encouraged to include a timeline chart or document in the Executive Summary that summarizes major programmatic milestones and decision points. After reading the Executive Summary, the audience should have a general understanding of the Office's broad goals, the type of research and development and/or deployment/market penetration activities the Office intends to pursue, and outline the potential risks and their mitigation.

2 Office Overview

The **Office Overview** should provide a detailed introduction to the Office, including an examination of the external context and market in which the Office operates, the Office's history, the reason for funding a Federal program in this area, as well as the Office's mission, vision, and goals. This section also describes how the Office will apply resources to produce outputs in conjunction with its stakeholders, and how it intends to achieve its intended outcomes consistent with the mission, vision, and strategic goals. This section sets the stage for the Technology R&D and/or Deployment Plan covered in Section 4 below.

2.1 Technology and Market Overview and Federal Role of the Office

This subsection provides the business and historical context in which the Office operates, including discussion of the market and the need for a Federal Office, and the role of the Office within EERE.

Provide an overview of the following:

- How this Office's mission aligns with the EERE Strategic Plan;
- Current and potential markets;
- A brief rationale for targeting particular market segment(s);
- Market barriers and strategies for overcoming them;
- State, local and international policy environment;
- International implications, if applicable;
- Current and potential technologies;
- Competing technologies and major technology barriers;
- Risks or issues that may influence the Office's strategy and operations; and
- A summary of the analysis described in Section 3 (full reports/studies can be linked to or included as Appendices).

This subsection should describe the Office's relationship(s) to other federal, state, local, tribal and other offices, if applicable, and how these relationships may affect the Office's strategy and operations.

Figure 2: Multi-Year Program Plan (MYPP) Structure

2.2 Vision and Mission Statements

The Office's **Vision Statement** outlines the Office's vision and how this vision aligns with EERE's corporate vision. A clear, cohesive, and concise vision statement is critical for determining the scope, direction, and rationale for the Office. The vision flows down into the Office's strategic goals and its outcomes. The vision is, by its nature, at least in part, external to the Office; i.e., the Office cannot achieve the vision alone.

If Office's feel that EERE's vision speaks to their Office's vision, they are not required to write a Vision Statement.

The Office's **Mission Statement** should identify the Office's role in achieving the vision's future state. The DOE and

EERE vision and mission are foundational; Offices are encouraged to describe logical linkages to these vision and mission statements. Specific EERE goals can also form the building blocks of an Office mission and vision statement.

The Mission Statement is the ultimate objective that an Office is capable of achieving. This subsection describes the Office mission and how that mission helps EERE to achieve its mission. A clear, cohesive, and concise mission statement is critical for determining the scope, direction, and rationale for an Office.

An explicit mission should communicate a public image to important stakeholder groups and succinctly answers:

- What function does the Office perform?
- For whom does the Office perform this function?
- How does the Office perform this function?

See below for best practices for writing Vision and Mission Statements and for examples.

Vision and Mission Statements – Guidance and Examples

Offices should tailor their mission and vision statements to their particular target markets. A well-formulated vision provides the basis for developing strategies and identifying actions within those strategies to help the organization reach its desired future state.

2.3 Office Structure

This subsection describes the Office's organizational structure and how it will lead to the fulfillment of the Office's vision and mission. There are multiple ways Office Structure can be described, including:

- Substantive Areas of R&D, such as Photovoltaics, Concentrating Solar Power, and Solar Heating and Lighting.
- Stage of R&D, such as basic research, applied research, technology development, and technology acceptance/deployment.

2.4 Strategic Goals, Sucess Indicators, Performance Goals and Multi-Year Targets

Figure 3 below is excerpted from the **EERE 2016-2020 Strategic Plan (http://energy.gov/eere/downloads/eere-strategic-plan)**. It depicts how the EERE Vision, Mission, Organization Principles and the Five Core Questions drive Sector and Office Strategic Goals, Strategies and Success Indicators.

Figure 3. EERE 2016-2020 Strategic Plan Excerpt

EERE Vision
A strong and prosperous America powered by clean, affordable, and secure energy

EERE Mission
To create and sustain American leadership in the transition to a global clean energy economy

EERE's Activities are Guided by Key Organizational Principles
Economic Prosperity | Affordability | Reduced Environmental Impact | Energy Security | Consumer Choice

	Strategic Goals	Strategies	Success Indicators
SECTOR-SPECIFIC	Goal 1: Accelerate the development and adoption of sustainable transportation technologies	Strategies to achieve the first four Strategic Goals are organized into three areas: • Cost reduction and performance improvement • Technology validation and risk reduction • Market barrier reduction	The plan includes 39 indicators that reflect interim milestones or end goals of strategies. Many of these indicators directly align with larger federal goals and provide what we anticipate EERE's contribution to be. Given different technologies' life cycles, indicator target years range from 2017–2035, with a majority in the 2020 and 2030 timeframes. Some indicators map to single strategies while others map to several strategies.
SECTOR-SPECIFIC	Goal 2: Increase the generation of electric power from renewable sources		
SECTOR-SPECIFIC	Goal 3: Improve the energy efficiency of our homes, buildings and industries		
CROSS-CUTTING	Goal 4: Stimulate the growth of a thriving domestic clean energy manufacturing industry		
CROSS-CUTTING	Goal 5: Enable the integration of clean energy into a reliable, resilient, and efficient electricity grid	Strategies to achieve Goals 5, 6 and 7 are cross-cutting in nature.	
CROSS-CUTTING	Goal 6: Lead efforts to improve federal sustainability and implementation of clean energy solutions		
CROSS-CUTTING	Goal 7: Enable a high-performing, results-driven culture through effective management approaches and processes		

EERE's Work is Prioritized According to The Five EERE Core Questions

Impact	Additionality	Openness	Enduring Economic Impact	Proper Role of Government
Is this a high-impact problem?	*Will EERE funding make a large difference relative to existing funding from other sources, including the private sector?*	*Are we focusing on the broad problem we are trying to solve and open to new ideas, approaches, and performers?*	*How will EERE funding result in enduring economic impact for the United States?*	*Why is this investment a necessary, proper, and unique role of government rather than something best left to the private sector?*

3 Technology and/or Deployment Plan

This section presents the technical plan for both Technology and Deployment Offices down to the program element or subprogram level. It should include discussion of the program element goals within the context of technical and market challenges, programmatic strategies for addressing those challenges, potential risks and mitigations, and key milestones and decision points toward achieving goals. It should also address cross-cutting issues, including communications and outreach (part of an Office's approach/strategy), and any other issues that an Office feels cannot be adequately addressed in separate discussions under each program element. Offices can present their technical plans in different ways, as discussed below.

One of the more useful methods for explaining the technology decision-making process is the Key Decision Point making process, which outlines the Office's main R&D or Deployment pathways. The technical plan for the various program elements or subprograms addressed in this section should include discussion of the decision-making processes used to determine which activities to pursue.

Offices may want to include a summary roll-up of key milestones, decision points, and critical path activities for the Office overall before going into the more detailed program element or subprogram level in the subsections that follow. The focus should be on activities within the five-year planning horizon of the MYPP, but the office may include longer out-year activities.

Offices may discuss the goals, market issues, tasks, risks and milestones of their program elements together when they are similar or linked. Such Offices might choose to discuss market issues and goals in a cross-cutting manner (if program elements share the same or similar goals and market issues), while including separate milestone charts for each element. Or, if milestones and decision points across an Office's various program elements are linked or interdependent, an Office may choose to include one milestone chart that encompasses all of its program elements.

Most EERE Offices are pursuing opportunities that extend beyond the current five-year planning period, and many are currently working on activities that began before the start of this period. The initial Technology R&D and/or Deployment Plan should provide a current snapshot of the Office at the beginning of its current five-year planning period. Updates to the plan can be made at any point during the planning horizon. The plan should reflect the current status along the path toward achieving Office goals. Acknowledgement of starting points and progress toward goals (or lack thereof) should be called out. The status of all key milestones, past, present, and future, should be documented.

All EERE Offices, whether R&D-focused or Deployment-focused, should include discussion of market penetration or deployment activities and any efforts to evaluate the impact of those activities on the market. In other words, R&D Offices that have deployment or market penetration components should discuss those components of their Offices in Sections 4.1.5 (Element/Subprogram Approach/Strategies for Overcoming Challenges and Barriers) and 4.1.6 (Element/Subprogram Milestones and Decision Points).

3.1 Element/Subprogram Level Plan

3.1.1 Element/Subprogram Support of Strategic Goals

This subsection describes how the program element/subprogram supports the strategic goals of the Office. If this program element also has more specific strategic goals, those can be described here as well. Element strategic goals may be beyond the Office's control, but may be critical to achieving the Office's vision. If so, the Office should develop and monitor metrics to track progress, even though the Office may not completely control the success of the element strategic goal.

This subsection should include the following components:

- Description of how the program element/subprogram supports the strategic goals of the Office.
- If there are Strategic Goals specific to this program element/subprogram, these can be described here also.

3.1.2 Element/Subprogram Support of Office Success Indicators and/or Performance Goals

This subsection describes the performance goals of the program element/subprogram, and should show how those goals align with Office-level performance goals. Performance goals may be combined as necessary to align with success indicators.

This subsection should include the following components:

- Describe the program element/subprogram performance goals.
- Show how element/subprogram performance goals align with or support the Office-level performance goals.

> **Best Practice: Stating Element Goals**
>
> Offices should ensure that program element goals are clear, comprehensive, measurable, and verifiable. Goals are only useful if they are easily understood, encompass an appropriate portion of the Office's activities, are able to be tracked and measured, and can be verified for both internal and external audiences.
>
> Goals should always include dates. Element goals, like Office goals, should be output-oriented.

3.1.3 Element/Subprogram Market Challenges and Barriers

This subsection describes the individual market challenges and barriers faced by the program element/subprogram. These challenges/barriers can be assigned a letter or number for easy reference later when describing strategies for overcoming them and milestones and decision points associated with those strategies.

This subsection should describe the current market challenges/barriers for the particular technologies addressed in this program element.

> **Best Practice: Addressing Barriers in the MYPP**
>
> Technical, market, and institutional barriers form obstacles to achieving Office goals. A well-designed and well-articulated Office plan will address these barriers directly. A simple listing of the barriers is insufficient for planning purposes. A good plan will fully explain these barriers and the relationship to the goals. In this way, it should be easier to demonstrate the relationship of Office activities to overcome these barriers and progress toward the goals.
>
> With the goals in mind, and the barriers understood, the Office can construct technical pathways (a series of related and interconnected activities) toward goal achievement. A well-constructed plan will tie Office activities directly to these barriers and give a sense of timing so that the technical or market pathway has a multi-year dimension that can be readily visualized. Graphics and tables are ideal for conveying this information.

3.1.4 Element/Subprogram Technical (Non-Market) Challenges and Barriers

This subsection should provide an in-depth look at the technical or non-market challenges/barriers facing this particular program element. These challenges/barriers can also be assigned a letter or number for easy reference later when describing strategies for overcoming them and milestones and decision points associated with those strategies (Sections 4.1.5 and 4.1.6).

This section should describe the technical or non-market challenges/barriers specific to this program element/subprogram.

3.1.5 Element/Subprogram Approach/Strategies for Overcoming Challenges and Barriers

This subsection should not only address R&D approaches for overcoming technical barriers, but should also address market penetration or deployment activities, if any, for addressing market barriers. All Offices (whether R&D-focused or Deployment-focused) should address the market penetration/deployment activities, if any, that the Office is undertaking to address those barriers. If it makes more sense for an Office to separate this into two subsections (i.e., strategies for addressing technical barriers and strategies for addressing market barriers), Offices may do so. The connection between each strategy and challenge/barrier should be fully explained.

This subsection focuses for the first time on the actual activities and tasks that comprise the program element's strategy for overcoming barriers. This should not focus on projects, which are at too low of a level of detail for this document. Each activity or task should identify corresponding barriers that it is designed to help overcome.

This section should include the following components:

- Describe the approach/strategies used to overcome market and technical barriers/ challenges, and give an overview of planned activities associated with those strategies.
- Focus on the program element's task/activity level, not the project level.
- Discussion should include both R&D and market penetration/deployment activities, where applicable.
- Explain why a particular approach or strategy is appropriate for meeting a particular goal.

> **Best Practice: Articulating Strategies to Overcoming Barriers**
>
> It is important not only to list barriers, but also to articulate strategies to overcome or address those barriers. Actions to overcome barriers should be identified. Usually these will be technical barriers and the primary strategy will be research and development. However there are institutional and market-related barriers for which the program might also have a strategy such as working with regulatory bodies, developing demonstrations at scale to solicit financing, per the EERE Investment Approach, or developing information to better inform consumer choice. These, and other market penetration or deployment strategies, when applicable, should be addressed here.
>
> A summary listing of activities or tasks undertaken can be provided in table format, indicating the barriers that the activity or task addresses and the duration of the task. These should correspond to the barriers referenced in Sections 3.1.3 and 3.1.4.

3.1.6 Element/Subprogram Milestones and Decision Points

This subsection allows the Office to highlight key milestones and decision points and to identify critical paths which should be illustrated in a timeline. The focus should be on activities occurring within the five-year planning horizon of

the MYPP, but an Office may include longer out-year activities.

This subsection should include the following components:

- Describe the critical path(s) as related to the Office MYPP and roadmap.
- Use a timeline to illustrate milestones and key decision points.
- Element/subprogram timelines should visually communicate:
- The relationship of the activities within a program element/subprogram;
- The relationship to activities in other program elements/subprograms; and
- Decision points to evaluate the Office's successes and/or failures in order to direct future Office activities.

The above should be communicated by the use of milestones and key decision points:

- **Milestones** are specific Office targets for the completion of planned activities/tasks.
- **Key decision points** are points where decisions must be made whether to continue current R&D pathways or particular activities within a pathway or whether to redirect efforts and funding to areas that show greater potential.

> **Best Practice: Timeline and Milestones**
>
> The timeline should provide an easy reference for measuring Office success and performance. It should be updated as underlying technology and market assumptions evolve. The Office will need to adjust to these changes and incorporate the consideration of changes to the baseline as part of the revision process.
>
> Milestones are used to identify discrete accomplishments along the way toward an objective. They are critical to determining Office progress. An Office plan should have milestones that are timed and tied to specific Office goals. The Office should be able to demonstrate how acquisition of a milestone brings the Office a step closer to achieving the goal. A subset of these milestones should form key decision points that are called out specifically in the plan. As these decision points are reached, or the time has passed when a key milestone was to be met, the Office should reevaluate progress toward the objective. These decision points form Go/No-Go decisions as to whether to continue down a particular path or to reevaluate and redirect resources.

3.2 Cross-Cutting Issues

This subsection should address any cross-cutting issues that an Office finds are important to include in its Technology Research, Development, and/or Deployment Plan. This might include issues that cannot be adequately addressed separately under each program element plan because of their interrelationships or interdependencies. An Office's communication and outreach strategy should be discussed in this subsection.

3.2.1 Communication and Outreach

This subsection provides a brief description of the Office's approach to communication and outreach issues, and how this approach contributes to Office goals.

This subsection should include the following components:

- Explain the Office's communication and outreach strategy.
- Does the Office collect market information for use in technology development or deployment decisions?
- How does the Office disseminate information to various stakeholders?

- Explain how the communication and outreach strategy relates to these essential participants and thus to a successful Office.
- Explain how the Office uses feedback from stakeholders.
- How do the Office's communication and outreach efforts interact with EERE's corporate communications and outreach Office.

3.2.2 Other Cross-Cutting Issues

The Office may add subsections as needed to address other cross-cutting issues faced by the Office.

4 Analysis[1]

This section describes the Office's plans for conducting analysis to support planning and decision making. Analysis should be discussed in the context of identifying the projected benefits of the Office. Together, the projected benefits and their underpinning analysis provide the justification for the federal role.

The types of analysis that might be described in this subsection include:

- Technology Analysis;
- Market Analysis;
- Benefits Analysis;
- Risk Analysis;
- Cost Analysis;
- Policy Analysis; and
- Portfolio Analysis

This section may include the following components:

- Describe the types of analysis performed by the Office;
- Describe the planned analysis activities and schedule;
- Describe the outputs of the analysis and how the analytical information is intended to inform planning and decision making; and
- Describe the plans for improving Office-specific analysis (e.g., tools, methods and data collection systems).

5 Program Evaluations

To help guide the effective management of our programs and be good stewards of taxpayer funds, EERE Offices should plan and implement evaluation activities to ensure critical information is available when needed to help inform core management functions.

The end result will help address critical decisions and other information needs for a program's core management functions. Core management functions include budgeting, planning (e.g., AOPs), program implementation (e.g., seeking continuous improvement), analysis (e.g. projections or technology analysis) and benefits reporting and communication needs.

[1] Some Offices may have dedicated program elements or dedicated line items in their budget for analysis. If this is the case, all components of this subsection can be incorporated into to **Section 3: Technology and/or Deployment Plan**.

5.1 Program Evaluation – Purpose and Examples

The purpose of program evaluation is to enable Offices to effectively provide evaluative information (e.g., findings, results, lessons learned, and recommendations drawn from evaluation activities) to inform program decision making and meet other needs. In this subsection, Offices should describe what types of evaluations they intend to undertake within the time horizon of the MYPP.

A robust multi-year evaluation plan should include the following components:

- Describe the Office's anticipated evaluative information needs and timing.
- Describe the types of priority evaluation activities to be performed,

Offices may undertake several types of evaluation activities. Examples include the following:

- An **In-Progress Peer Review** is defined by EERE as a "rigorous, formal, and documented evaluation process using objective criteria and qualified and independent reviewers to make a judgment of the technical/ scientific/business merit, the actual or anticipated results, and the productivity and management effectiveness of programs and/or projects." The current guidance can be found here: EERE Peer Review Guide (http://eere-intranet2.ee.doe.gov/document/peer-review-guidance).

- **A Process Evaluation** determines how well a program is working and is used to analyze the effectiveness of how programs deliver services relative to program design.

- An **Impact Evaluation** provides evidence that outcomes have occurred, and estimates the proportion(s) of the outcome(s) that are attributable to the program, rather than to other influences. The findings demonstrate the value of the program investment to key stakeholders and, if designed to do so, help managers decide whether to continue the program, and at what level of effort.

Part III – Appendices

Appendix A: Examples of Recent EERE Multi-Year Program Plans

- Bioenergy Technologies Office Multi-Year Program Plan (http://www.energy.gov/sites/prod/files/2015/01/f19/mypp_beto_november_2014_0.pdf), March 2015
- Fuel Cell Technologies Office Multi-Year Program Plan (http://energy.gov/eere/fuelcells/downloads/fuel-cell-technologies-office-multi-year-research-development-and-22), 2011-2020

Appendix B: Glossary of Terms

Barrier: *(syn. obstacle)* a condition of material, financial, technological, or other deprivation which hinders progress toward implementation of an activity.

Challenge: a factor to be taken into account in the design of program goal-setting for market, financial, technological, or other change. A challenge is similar to a barrier but includes a demonstration of intention – it is a known factor whose presence is purposefully included in the formation of a program's objectives.

Government Program: A set of related projects managed to specific, measureable, attainable, realistic, and time-bound objectives and run or including funding from federal, state, local, or other government entities.

Office: Refers to one of the 10 technology and deployment offices within the Office of Energy Efficiency and Renewable Energy, Department of Energy

Performance Goals: Describe selected future outputs of the Office. A Performance Goal should include a unit of measurement (metric), a target, a baseline, a target year, and a baseline year. Performance goals typically fall from three to ten years out for R&D Offices, but may be shorter for Deployment Offices.

Strategic Goal: Statement of aim or purpose; used to group multiple program outcome goals. The GPRA Modernization Act requires general, outcome-oriented, long-term goals for the major functions and operations of the agency. Agencies use strategic goals to articulate clear statements of what the agency wants to achieve relevant to its national problems, needs, or challenges, and how it expects to achieve them.

Technology Roadmap: Establishes program pathways and the end point of a successful program, and allows visibility into progress toward that end point. A detailed plan with specific performance targets and metrics based on thorough system cost and performance analysis and consideration of market and deployment requirements and barriers.

*For additional terms, please refer to the **EERE Glossary (http://eere-intranet2.ee.doe.gov/sites/default/files/documents/EERE%20Glossary.pdf)**.*