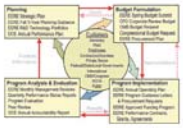

4.1 Planning Overview

Planning sets out the desired outcomes and the "stepping stones" to achieve them.

Planning is an essential factor leading to organizational and program success. Plans need to be developed that tie together or align all organizational levels and across planning (time) horizons. The achievement of goals and objectives at each level should aggregate seamlessly to achieve the vision and mission of the organization. As applied to the Office of Energy Efficiency and Renewable Energy (EERE), the activities of each program and the programs within EERE should complement each other in contributing toward the attainment of all U.S. Department of Energy (DOE) goals and objectives. See Figures 4.1-1 and 4.1-2 for stages in this process.

Plans link vertically and horizontally (crosscut).

Figure 4.1-1 Six Planning Stages

- Long-term: strategic vision, strategic assessment, strategies,
- Mid-term: strategy, tactics, plans, information and control, and
- Near-term: budget and operating plans.

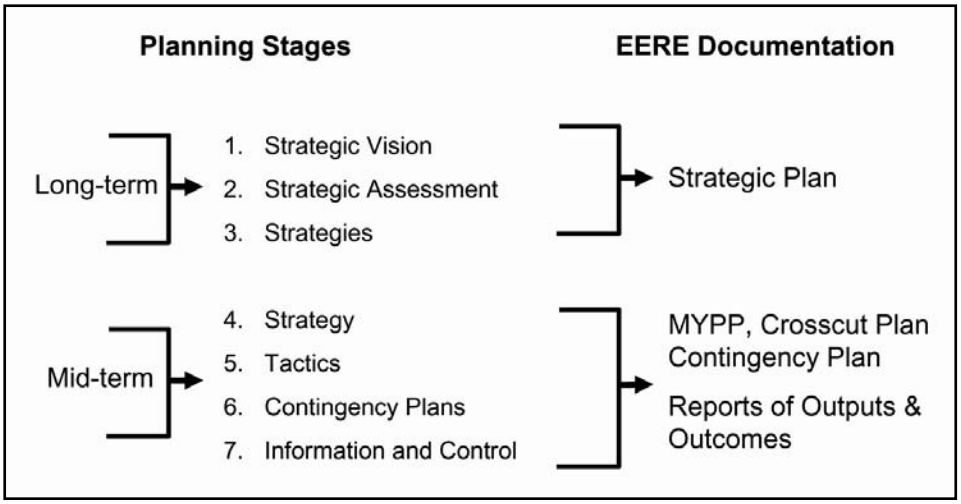

Figure 4.1-2 Planning Stages

Both long- and mid-term plans drive EERE documentation such as near-term budgets and operating plans.

Strategic Vision: The first step involves the question: "Where do we want to be?" The planning team starts these discussions by identifying mandates and clarifying missions and purposes. DOE planners must take into consideration not only legislative mandates but also internal "wants" such as departmental discretionary initiatives in this phase. From here, the planning group then defines how they envision their organization's ideal future.

Strategic Assessment: The second step asks the question: "Where are we now?" The planning team must conduct an inventory and rating of external and internal Strengths, Weaknesses, Opportunities, and Threats (SWOT). Planning teams usually are more adept at identifying strengths and weaknesses than opportunities and threats. The deficiencies require a better understanding of forces and trends, stakeholders, competitors, and collaborators. A DOE Strategic Plan should identify strategic issue options or fundamental policy choices. The planning team will be involved in debating several inherent conflicts so that a consensus can evolve on a common definition and prioritization of issues.

Strategies (Road Map): The third step, also known as the road map, involves the question: "How do we get from where we are now to where we want to be?" Strategies outline the organization's response to strategic issues — in other words, issues management.

Strategic Planning defines the program's future for all involved or interested parties. At the most strategic level, plans describe the program's purpose, set out a vision, and develop broad and long-range goals to provide overall program direction. (In general the strategic plan answers the question, "Where are we going, and why?"). In that regard, it serves as the foundation for all other plans.

Multi-Year Program Plans (MYPP) and Crosscut Plans (CP) also address the strategy phase by narrowing the list of possible strategies in the strategic plan to just one strategy in greater detail on a three- to five-year planning horizon. This aspect of the plan should address the question: "How will the organization reach its strategic vision creatively?"

Tactics (Action): The question, "Who has to do what when to make it happen?" captures the essence of tactics in the planning process. Multi-Year Program Plans and Crosscuts Plans should address the specific steps for implementing the strategy.

Contingency Plans: All good plans anticipate potential roadblocks or detours. When these setbacks arise, contingency plans are a means of making adjustments to keep moving towards strategic visions (i.e., "How do we keep our momentum going toward our destination when faced with obstacles?").

Information and Control: The final section addresses the question: "Are we on the right road?" Multi-Year Program Plans and Crosscut Plans have to describe information and control systems for measuring program progress. The feedback data are important inputs into the next planning update cycle.

Outputs from multi-year program planning include mid-range goals and objectives, with identified technical, funding, and schedule requirements to serve as milestones to assess progress and guide the program along the journey. (The relevant questions being addressed here are: "How are we going to get there, what time and resources will it take, and how will we know if we are getting there?")

Finally, annual operating planning is required to identify the details of program execution in the near-term, including program constituent projects and activities. Among these details are technical objectives, procurement and financial assistance actions, field assignments, budget requirements, and milestones for the year. (The question here is: "What do we have to do to prepare for next year?")

These three essential planning levels are therefore: strategic planning, multi-year program planning, and annual operating planning. They flow from the "out" years back to the present and from general to specific.

In terms of the relationship of planning to the other EERE Strategic Management System (SMS) stages, planning feeds the budget and directs program implementation activities. For a more detailed discussion of the SMS and its relationship to planning, see Chapter 2 and Chapter 4, Subsection 4.6. The results of program analysis and evaluation at all levels provide critical inputs to current operations and future plans.

4.1.1 General Planning Guidelines

To be most effective, planning needs to be conducted collaboratively; that is, it must give a voice in the process to those who will perform the work or receive the benefits either directly or indirectly, as well as to important involved or interested constituencies. A high degree of openness and participation facilitates consensus and gains necessary support.

Program planning should be based on analysis. Of particular importance are: the potential of alternative technologies or alternative paths within technologies, the relevance of the technologies to the missions of the programs, and the quality of past research in the area. These elements need to be coupled with economic analyses to determine alternative strategies' cost-effectiveness and sensitivity to change.

EERE utilizes an organization-wide planning structure and processes to develop and maintain the EERE Strategic Plans, MYPPs, and Annual Operating Plans (AOP).

Strategic plans flow from the DOE level down to EERE and to the technology development program offices and programs within EERE. These plans draw from DOE external and internal environments and inputs from stakeholders, including the individual programs within EERE. MYPPs link the strategic goals and objectives to annual performance plans. Both MYPPs and AOPs are developed at the program level and are aggregated up to the EERE level, as shown in Figure 4.1-3.

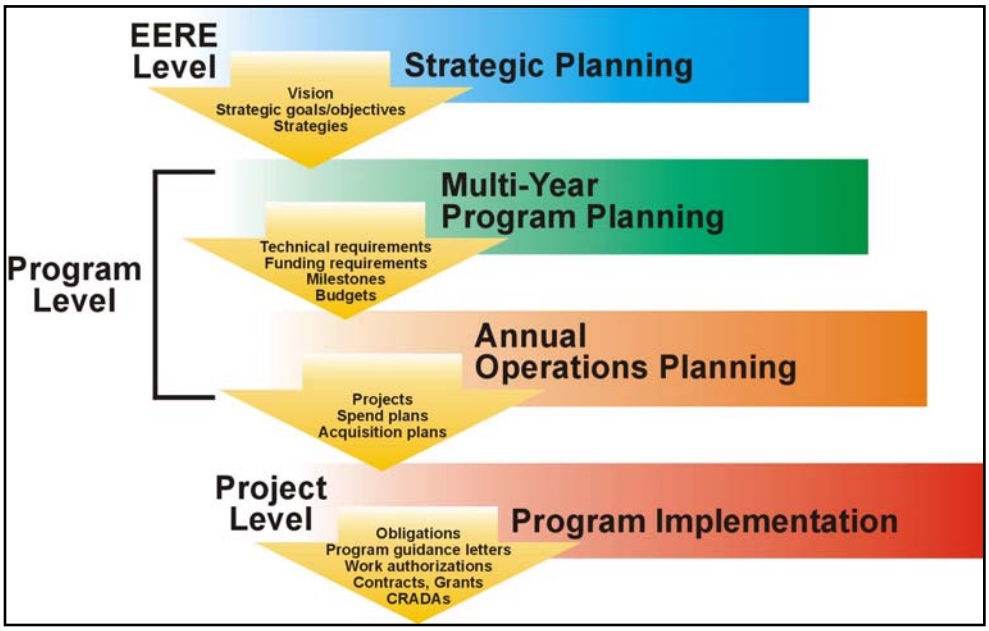

Figure 4.1-3 Planning Process Levels

Program planning is the foundation for all other program activities.

Programs should always draw upon the higher-level plans in developing their own program-specific plans. MYPPs should derive from strategic plans, and AOPs should derive from MYPPs. This hierarchy provides coherence, which facilitates budget formulation and program implementation. Therefore, planning is best accomplished as a teaming activity between the program and higher-level elements in EERE. Important resources for program teams are the EERE Strategic Plan and the Office of Planning, Budget and Analysis (PBA).

Goals and objectives set the long-term and mid-term targets.

The PBA analyst provides the integral view of EERE Corporate and Program Office goals. The PBA Planning Analyst also provides information and assistance, and serves as the interface or liaison between the Program Offices and other EERE offices in the planning function. The PBA Planning Analyst serves both as an information broker and a functional expert in a manner similar to that of the PBA Budget Analyst.

Program managers have a set of planning roles and responsibilities.

Planning must be considered a teaming activity among EERE, the Program Offices, and the programs.

Program planning can and should be synchronized with EERE's planning horizons and schedules by using the framework of the EERE SMS. This can be done by referring to the SMS Planning stages (Table 4.6-1, Page 4-27) in the EERE Program Management Guide and using the guidelines and references provided.

In summary, strategic planning starts at the top of the organization. Beginning with the National Energy Policy, the Department develops or updates and issues the DOE Strategic Plan every three years. The Strategic Plan is adjusted in the interim only if required by changes in exogenous factors, including major trends such as the price and availability of fossil fuels. EERE's Strategic Plan is aligned to and supports achievement of the DOE strategic goals and objectives addressable within its operating mission, charter, domain or capability, and capacity. EERE Program goals and objectives flow from the EERE Strategic Plan. MYPPs and AOPs flow up to the programs from inputs from the projects and performers, and are aggregated at the EERE Program level. Figure 4.1-4 shows these top-down and bottom-up flows.

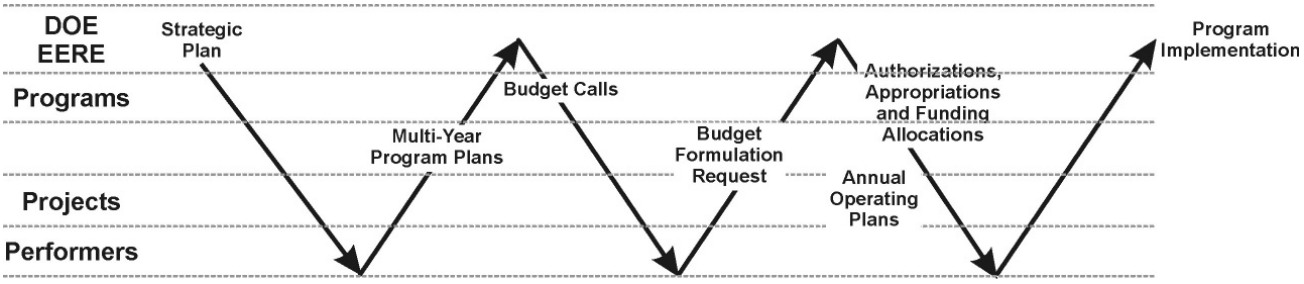

Figure 4.1-4 Planning Levels

Planning is conducted at four organizational levels:

1. *DOE/EERE Corporate*
2. *EERE Program Offices*
3. *Project (Field)*
4. *Performers*

The MYPP and AOP plans establish the baseline for all subsequent program activity including follow-on plans. Good plans should be far-reaching and challenging as well as detailed and specific in the near term. They should inform participants and stakeholders and guide their actions and decisions. They should also serve as a catalyst for cooperation and teaming by communicating common purpose and strategies. Additionally, structured planning enhances individual and group thinking as well as strategic and day-to-day decision making.

Program management teams plan the program in response to:

- Legislative authority,
- The program's needs, responsibility and mandate in support of higher level organizational goals and objectives,
- Stakeholder requirements and expectations, and
- Situational factors.

Planning is conducted for three time horizons:

- Strategic – 5 to 20 years
- Multi-year or multi-year programmatic – 2 to 5 years

Program management teams must strive to create and promote a vision or ideal long-term future state, perhaps seven to ten years into the future. To be effective, the vision should be short, explicit, and compelling. It should clarify for the reader the purpose of the program, what it aims to achieve, and why it is meaningful and worth enthusiastically pursuing.

After the purpose is clear, the team should identify goals. Goals as described here mean desired outcomes that are broad, long-term (five years or more), and challenging but attainable. After the goals are set, strategies must be identified. Strategies are broad courses of action to achieve the goals. After the strategies are in place, objectives can be identified that fit the strategies. The objectives are mid-term milestones along the path to accomplishing the goals. They are specific and measurable as to what needs to be accomplished in terms of schedule, cost, and technical accomplishments.

4.1.2 Alignment of EERE Strategic Planning to National Priorities

Strategic planning inputs come from a variety of sources. These inputs shape both the EERE mission and the Department's strategic goals and objectives, as shown in Figure 4.1-5.

Figure 4.1-5 Strategic Planning Alignment to National Priorities

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4.2 EERE Strategic Planning

Strategic planning is a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization (or other entity) is, what it does, and why it does it. Good strategic planning should be visionary, conceptual, and directional. A sound plan should serve as a framework for decisions or for securing support/approval, provide a basis for more detailed planning, explain the business to others in order to inform, motivate and involve, assist benchmarking and performance monitoring, and stimulate change and become building block for next plan. Management consultant Peter Drucker has likened poor planning to "driving down a country road at night with no lights while looking out the back window." No one would really do that; however, many people approach strategic planning in that manner. This chapter will introduce the fundamentals of strategic planning.

4.2.1 Strategic Planning Concepts

A sound strategic planning framework includes the following concepts:

- Uses top-down approach;
- Identifies internal and external stakeholders;
- Uses SWOT analysis;
- Assumes change and turbulence;
- Explores alternatives and develops strategies;
- Envisions best thinking about the future;
- Gathers information on a broad scale and identifies trends;
- Captures a vision of success, and
- Is action-oriented.

4.2.2 Key Elements in EERE Strategic Planning

Program strategic planning translates strategies into action:

- Mission (business, task, or purpose)
  - — Why do we do what for whom and how?

- Situation Analysis (environmental scanning)
  - Where are we today in terms of our mission?
  - What is "our world" like and our likely future?
  - Who are our customers?
  - What are our planning assumptions?
  - What are our strengths and weaknesses?
- Values
  - What do we believe in and stand for?
- Vision
  - What do we hope to achieve there?
- Strategic Goals and Objectives
  - What are our long-term objectives?
  - What are our long-term priorities?
- Strategic Issues (opportunities and threats)
  - What obstacles or barriers do we see to achieving our vision?
- Strategies (courses of action to overcome barriers and accomplish objectives)
  - What directions or courses of action should we set out on?
- Measures (metrics to determine where we are)
  - What are key indicators for our performance?

4.2.2.1 Mission Statement

The mission statement serves to clarify the purpose of the organization for people both within and outside. In addition to clarifying the tasks ahead, it should serve to narrow and focus, as well as to inspire and motivate. The mission statement should be debated and refined to its essence to explain, in an easily understandable way, why we do what we do, for whom, and how. It should describe what products or services are provided to what customers

(products), clients (services), or sponsors; and what activities or kind of work we do to provide these products or services. The following is a list of questions one should refer to in developing a mission statement:

- Will it be clear to everyone within and outside the organization?
- Does it tell what our job is, what needs we are trying to fill, for whom, and how?
- Is it clear whom we regard as our customers—not only who they are but who they should be?
- Is our primary focus or strategic thrust clear? Does it reflect our distinctive competencies?
- Does it reflect our core values, philosophy, and beliefs? Will it energize, motivate, and stimulate our organization?
- Is it concise enough for people to remember the main points?

4.2.2.2 Situational Analysis

The situational analysis (sometimes called environmental scan) is done by gathering facts and analyzing trends that give an objective picture of where we stand in the "world" of this business, including the external and internal pressures and factors likely to affect our future and impact achievement of our general goals and objectives. Staff specialists and key subordinate managers can gather and analyze much of this information.

For major corporations, the analysis of the business climate, marketplace, competition, etc., can get very detailed and voluminous. For the major programs and activities of the Department, the data collection could likewise easily exceed the capacity of the planning team to digest and assess it. The team will want to focus on information that may impact the choice of long-term objectives, looking particularly at the organization's stakeholders, key performance indicators, and trends that represent opportunities or threats, internal weaknesses and strengths, and planning assumptions.

- Stakeholders are those who have a stake in the future success of the program. In the case of DOE, stakeholders are managers, employees and contractors, while external forces may also include those from the political, economic, social, and technical sectors.

- Trends are the key factors that will affect your program outcomes. Once identified they can be analyzed to determine their impact in the future.
- SWOT is a performance self-assessment that takes an objective look at the organization's assets and constraints.
- Benchmarks are means of measuring the organization's progress against the competition. When these benchmarks do not exist, the organization should use its past performance for purposes of comparison.
- Adequate planning must rely on the foregoing analytical steps and so those steps should be described explicitly in the Strategic Plan.

4.2.2.3 Values

The values are the statement of what the organization believes in and stands for, such as:

- Governs behavior at all levels;
- Establishes organizational culture; and
- Important when deciding courses of action.

4.2.2.4 Vision

It may be very useful, either before or after listening to the situation analysis, for the planning team to consider their vision of what they hope the future situation might be at the end of the planning period they have chosen. One question to raise is: "What would the EERE XYZ organization's situation be—what would you see in place—in 2020 if we really were successful in our programs?" This question should lead to useful discussions of differing visions of the future. These discussions should lead in turn to agreements on some of the objectives toward which we want to strive.

As a fictional example, the Defense Programs team might ask: "What would the weapons complex configuration look like in 2025 if we really were successful between now and then?" This approach, using a leap forward to thinking about what success is really desired, facilitates discussions of the "what" questions and helps stave off the "hows". From vision discussions, the group then will be able to generate a number of objectives, i.e., ends that we really desire if the vision is to be realized.

Regarding the number of objectives, experience suggests that most planning teams have no trouble generating a large number (often too many) of objectives when the strategic planning is for a major site or program. Typically, there will be several objectives dealing with the program itself or with production or operations, as well as objectives dealing with people (employees), environmental concerns, waste management, health and safety, security, productivity and costs, quality, management excellence systems, and community concerns. Determining which objectives are "musts" and which are "wants", and which of the "wants" are most important, can be useful in narrowing the list to the key or essential strategic objectives.

4.2.2.5 Strategic Goals and Objectives

The strategic planning process should define long-range objectives, priorities, and strategies that:

- Have plans driving budgets;
- Assist the Secretary, Deputy Secretary, and Under Secretary in decision-making;

- Provide a basis for resource allocations in the National Energy Policy;
- Provide policy guidance for MYPPs and budgets;
- Relate a program mission to internal and external influences; and
- Describe broad program ends; objectives describe ends we will try to achieve during the planned period.

Examples of Strategic Objectives

Some hypothetical examples are given below, together with comments to highlight features.

- Provide a cost effective research and development program ready for decisions to be made with regard to deployment by the year 2020.

  ~~o~~Comments: The year is critical to this objective statement; hopefully, there is a 50:50 chance it can be done by then. Is the decision point for deployment clear, realistic and challenging?

- By 2020, have a nuclear power reactor design that has been demonstrated and ready for commercial use, that is economical (considering all costs including environmental), and that, through use of passive safety features, eliminates possible repetition of accidents like those at Three Mile Island or Chernobyl.

  ~~o~~Comments: An example of adding on an explanation as to why an objective is desirable.

- Develop cost-effective solar technologies to provide 25% of the energy requirements for buildings in the near term and 50% in the long term.

  ~~o~~Comments: This is an example of an objective that may be too vague. The objective may be clearer when terms like “near term” and “long term” are replaced by specific years.

- Ensure that every U.S. student studies mathematics and science every year in grades K through 12 as part of a core curriculum, so that in these subjects, U.S. students will be the most knowledgeable in the world by the year 2020.

  ~~o~~Comments: This is measurable and the performance indicators are clear, but how realistic/achievable an objective is it?

- Raise the level of scientific literacy, including knowledge of energy issues, in the adult public.

  ~~o~~Comments: This is an example of an "ideal," not an "objective." We will still be striving toward this in the year 2040. One approach to sharpening it into an objective would be to add on, "increasing the level to that of the average 1990 high school graduate by the year 2020" (assuming that the scientific level of high school students can be measured).

- Maintain U.S. prominence in basic research.

~~o~~Comments: This also is an example of an ideal, not an objective. Note how difficult it is to evaluate without the facts derived from situational analysis. One does not know if it is sufficiently challenging or if it is achievable.

4.2.2.6 Strategic Issues

Define a problem (i.e., What are the obstacles keeping us from achieving our vision?). Sample criteria are:

- Specific enough to suggest strategies;
- Not a restatement of today's situation; and
- Likely to become a strategic barrier.

4.2.2.7 Strategies

Strategies should take into account the following factors.

- Courses of action: The directions we want to move in today and tomorrow in order to reach our long-term strategic objectives.
- Direction vs. resource/timing: While DOE strategic plans provide direction, MYPPs and CPs address detailed questions of resources and timing.
- Motivational and challenging: The strategy should represent an enduring course of action (like a policy) that will be a guide for many years.

- Believable: Use language that contains enough specifics that people can "see where they are going" and broad enough that they engage their imaginations.
- Performance-Based:
  - Goal/objective;
  - Measure; and
  - Standard.

4.2.2.8 Measures

Program planning measures should be concrete and should include:

- Means of measuring progress with the emphasis on tracking program advancement;
- Gauges of goal/objective progress and attainment;
- Specific measures for each goal/objective; and
- Objective/quantifiable measures to the extent feasible.

4.3 EERE Multi-Year Program Planning and Crosscutting Planning

4.3.1 Mid-Term Planning

Program Managers play their most active role in EERE's planning process by preparing MYPPs and CPs, which focus on developing a particular strategy by identifying tactical implementation and contingency planning.

4.3.2 Principal Concepts

Critical principal concepts that must be adhered to when preparing MYPPs and CPs include:

- Time-phased objectives: a date during the planning period for reaching a program goal;
- Quantitative technical goals: means of measuring progress towards strategic goals;
- Milestones: important completion points that must be accomplished before the program can advance to the next stage of progression; and
- Resource requirements: a description of participants, management organization, program progress, planned activities, schedule, resource requirements, and priorities.

4.3.3 Tactics: Reasons for Setting Objectives

Reasons for setting objectives include:

- Translate strategic thinking into specific plans to manage program activities;
- Provide a basis for program execution and evaluation;
- Identify resources and schedules; and
- Prioritize programs.

4.3.4 Multi-Year Program Plan

An MYPPshould provide meaningful program guidance to the field and a means of measuring progress during program execution.

4.3.4.1 Definition

MYPPs normally establish shorter-term (five years), time-phased objectives, quantitative technical goals, near-term strategies (with milestones), and resource requirements.

4.3.4.2 Multi-Year Program Plan Template

The MYPP Template provides guidance to EERE programs on developing effective program plans. It provides a general framework for multi-year planning, and includes the rationale for the various sections to be included in the MYPP. The guidance is laid out in the following order: Executive Summary; Program Overview; Technology Research, Development and/or Deployment Plan; and Program Portfolio Management. These elements are followed by: appendices that include sample sections from past MYPPs, a glossary, MYPP Drivers, and a guide to assist programs in developing logic diagrams. Please see Appendix A to review a summary of the MYPP template. The MYPP Template Phase II Guidance in its entirety may be accessed at: http://www1.eere.energy.gov/ba/pba/pdfs/eere_guide_mypp_0606.pdf.

4.3.5 EERE Crosscut Plan

Although crosscut planning is nearly identical to multi-year program planning, it has been more difficult to implement in DOE.

4.3.5.1 Definition

Crosscut planning involves programs that supplement, complement, or support each other in accomplishing identified missions.

4.3.5.2 Crosscut Plan Examples

- Bioenergy Initiative. This initiative coordinates government efforts and partners with the private sector to develop an integrated bioenergy industry to produce power, fuels, and other bioproducts from biomass. An Executive Order signed by President Clinton in August 1999 established a Cabinet-level Council on Bioenergy, led by DOE and the U.S. Department of Agriculture. The President also established a goal of tripling the use of bioenergy and biobased products by 2010.

- Combined Heat and Power (CHP) Challenge. Conventional electric power plants are inherently inefficient, converting only about one-third of their fuel source's energy into electricity; the rest is waste heat. However, the efficiency of power generation can be boosted to as much as 85% if the waste heat is reclaimed to supply thermal energy to buildings or industries. The goal of the CHP Challenge is to double the capacity for electricity generation from CHP facilities by 2010.
- International Programs. EERE's International Programs help developing countries leapfrog conventional approaches to energy production and instead make the best use of clean energy technologies. The program currently provides technical assistance to more than 60 countries, helping to build new markets for renewable energy and energy efficiency technologies while creating new sales opportunities for U.S. clean energy industries.
- Million Solar Roofs Initiative. Announced by President Clinton in June 1997, this Presidential initiative, led by EERE, is supporting the installation of one million solar energy systems on U.S. buildings by 2010. Working through more than 40 state and local partnerships joined with the solar industry, utility service providers, government agencies, and other organizations, the Initiative eliminates barriers to solar energy use and assists in developing market demand.
- Wind Powering America. This initiative establishes partnerships between public and private organizations to encourage the increased use of wind energy. This initiative has set a goal of providing 5% of the nation's electricity from wind by 2020, with the federal government setting the example by obtaining 5% of its electricity from wind energy by 2010.
- GeoPowering the West. This DOE initiative will link public and private sector efforts to bring geothermal electricity and geothermal heat to widespread portions of the West. The short-term goal is to double the number of states with geothermal electric power facilities to 8 by 2006. The long-term goal is to supply at least 10% of the electricity needs of the West by 2020 with 20,000 megawatts of geothermal energy of capacity.

4.3.6 Multi-Year Program Planning/Crosscut Planning Similarities

The main similarity between MYPPs and CPs is that they follow the same rules of content in regard to:

- Mission and summary
- Situational analysis
- Program objectives
- Program issues
- Program implementation strategy
- Program data
- Contingencies

4.3.7 Multi-Year Program Planning/Crosscut Planning Differences

The MYPP and CP differ in the roles and responsibilities assigned to each as follows:

- CPs are normally originated by a field Program Manager who coordinates with the sponsoring offices.
- CPs are not based on an existing Strategic Plan, so the mission need, situational analysis (especially stakeholder analysis), and program objectives are developed by the crosscut planning team.
- While MYPPs take a vertical program planning approach (which accounts for all program budget dollars and resources), CPs involve a horizontal planning approach across one or more MYPPs. See Figure 4.3-2.
- The crosscut planning team compares their strategic vision to that of the MYPPs and identifies planning shortfalls. See Figure 4.3-3.
- The crosscut planning team attempts to remedy crosscut planning shortfalls by adjusting MYPP budget and resource levels, or raises the shortfall issue during the Spring Budget Review.

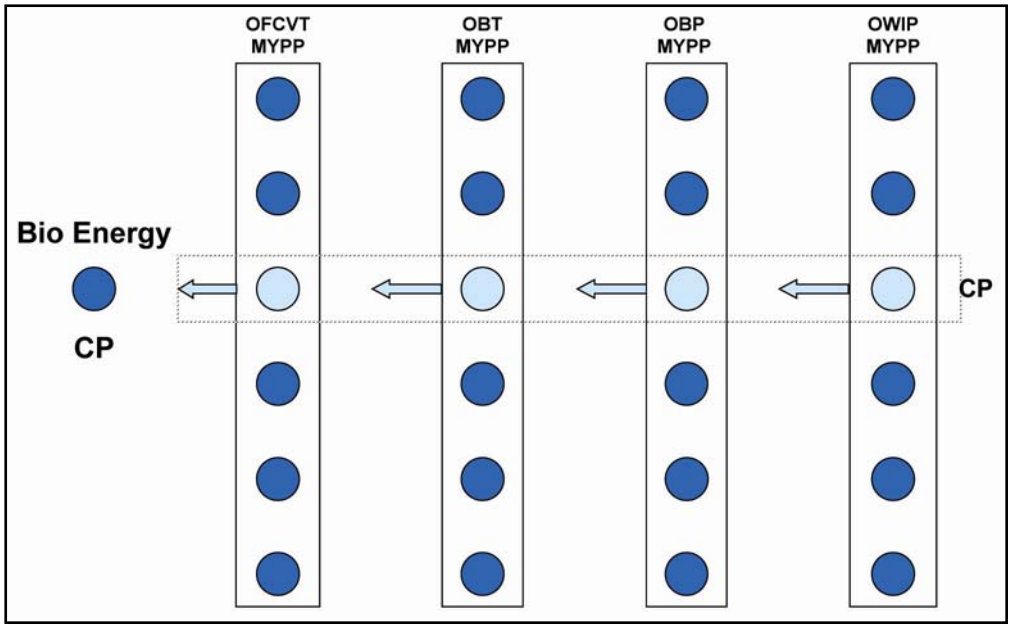

Figure 4.3-2 Crosscut Plan Relationship to Multi-Year Program Plans Example

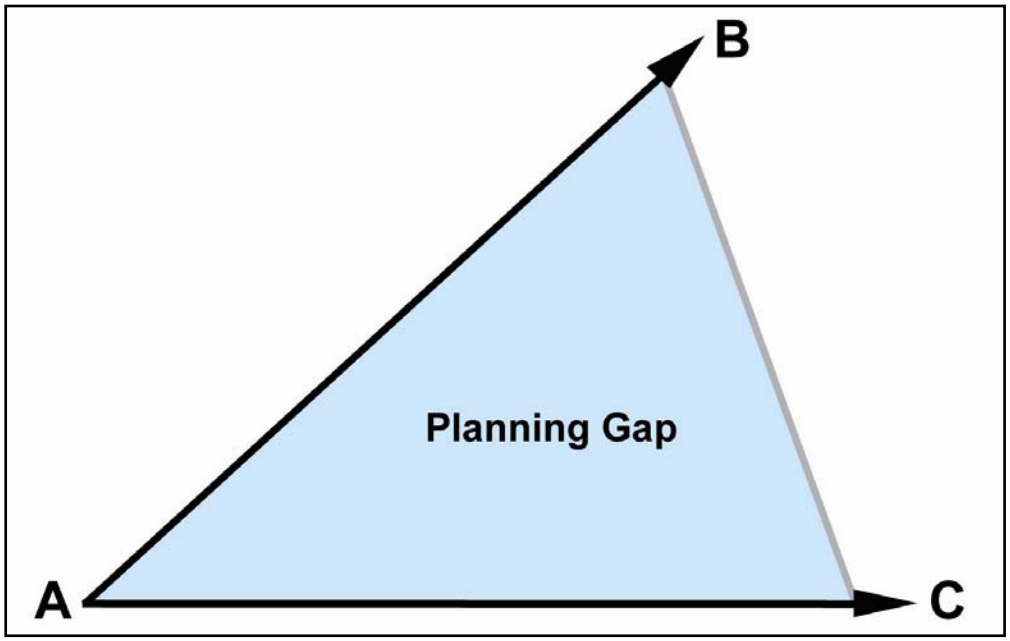

Figure 4.3-3 Crosscut Plan Strategic Vision Shortfall

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4.4 Annual Operations Planning

Annual operations planning reduces programs to their constituent projects and details, technical objectives, contracts, grants, and field assignments, budgets, and milestones for each year.

4.4.1 Annual Operations Planning Process

- Assemble planning team
- Review goals and objectives
- Identify planned accomplishments for the year with associated measures and standards
- Identify what work will be assigned
- Identify who the work will be assigned to
- Identify required funding
- Identify vehicles for assigning the work
- Identify milestones for ensuring vehicles are in place to assign and fund the work
- Plan and establish projects
- Identify scope of projects, major milestones, technical goals, and probable costs
- Establish project managers and provide necessary staff resources

After the MYPP is updated, the Program Manager begins the annual operations planning process by using the ensuing fiscal year (slice) of the MYPP as the foundation on which to develop the AOP. The Program Manager reviews the program's goals and objectives. He/she then reviews the near-term milestones and determines the activities required in the upcoming execution year to achieve them. Some of the milestones will be achieved via ongoing project activities from prior fiscal years. Others will require the initiation of new projects. All will require the identification of the applicable funding requirements and the timing of the funding obligations. In each case, the work performer and/or acquisition and/or financial assistance vehicles will be identified and the cost, schedule, and technical requirements specified.

EERE's Standard Operating Procedure AOP Guidance may be accessed at http://eere-intranet.ee.doe.gov/BA/IBMS/pdfs/annual_operating_plan_guidance.pdf

To complete the AOP, the Program Manager develops an annual Spend Plan, which identifies all of the funding required and when it will be needed during the year. The completed AOP is then used to develop a procurement plan that provides the planning details, including the lead times for preparing acquisition and financial assistance documents. The AOP is also the source of information for generating Work Authorizations and Program Guidance Letters to the field.

EERE's Corporate Planning System (CPS) provides Program Managers, as well as other EERE staff, the ability to produce each program's AOP and annual Spend Plans. In addition, the CPS contains information that can be used to generate MYPPs and Gantt charts that identify Program-to-Project Milestones. Readers with access to the EERE intranet system can access the CPS at: http://cps.ee.doe.gov. Additional information about the CPS and how it supports the EERE planning process will be discussed in more detail in Chapter 8, EERE Information and Business Management Systems.

4.5 Planning Process Summary

EERE has established an organizational-level planning structure and processes to develop and maintain EERE Strategic Plans, MYPPs and AOPs. Each of these plans has a specific purpose, content and time frame, as shown in Figure 4.5-1.

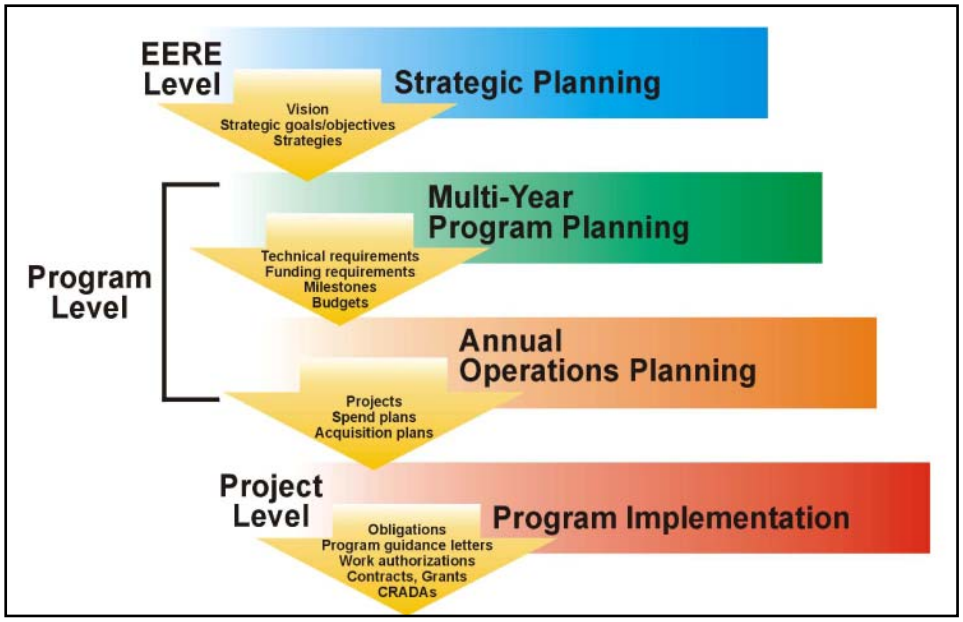

Figure 4.5-1 Planning Process Levels

Strategic goals flow from the DOE level down to EERE and the technology programs. These plans are developed based on the DOE external and internal environments and inputs from stakeholders, including the individual programs within EERE. MYPPs link the strategic goals and objectives to AOPs. Both MYPPs and AOPs are developed at the program level and are aggregated up to the EERE level as shown in Figure 4.5-2.

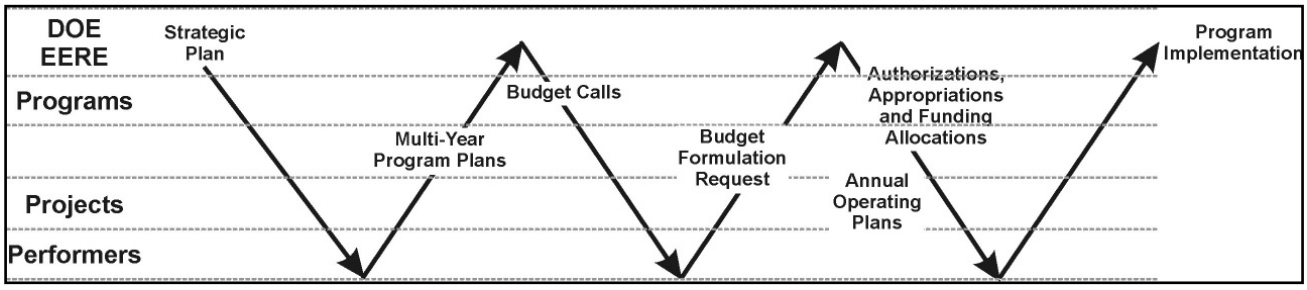

Figure 4.5-2 Strategic Planning Levels

4.5.1 Planning Horizons

The illustration in Figure 4.5-3 shows how the strategic goals and objectives feed backward from the Strategic Plan to the MYPP. The MYPP rolls backwards and feeds the AOP. The preliminary AOP is used to develop the procurement plan.

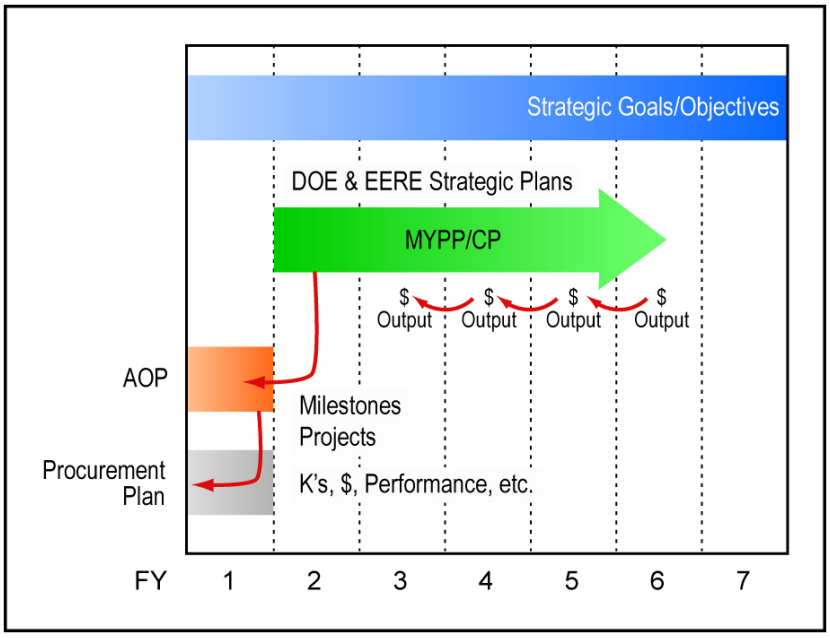

Figure 4.5-3 Planning Horizons

4.6 EERE SMS Planning Stages

The Deputy Assistant Secretary for Business Administration (BA) supports EERE's long-term planning efforts by conducting market analyses that:

- Evaluate EERE's current R&D portfolio and assess alignment with current strategic objectives;
- Identify new long-term energy opportunities and challenges; and
- Identify broad R&D strategies to address long-term opportunities and challenges.

The BA office should ensure integration of EERE goals, objectives, and milestones during the SMS planning, budget formulation, program implementation, and program evaluation key processes.

Each of the steps in the diagram below is consistent with the Under Secretary of Energy's October 14, 2005 SMS memo. Table 4.6-1 describes each stage in greater detail. Readers with access to the EERE intranet can view the Under Secretary of Energy's October 14, 2005 SMS memo at: http://eere-intranet.ee.doe.gov/BA/IBMS/pdfs/SMS_Garman20051014.pdf

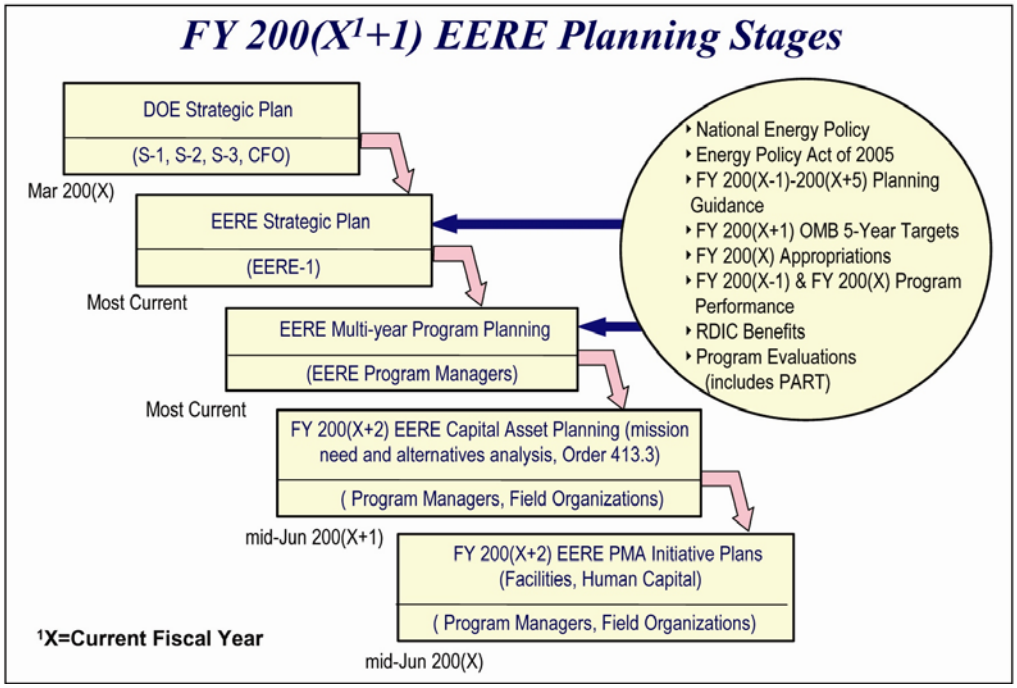

Figure 4.6-1 FY 200(X[1]+1) EERE Planning Stages

While planning is essential at the organizational levels and time frames mentioned earlier, the SMS requires only a minimal number of published plans. Whenever possible, plans should be consolidated and redundancies eliminated. Plans should clearly identify their purpose and their relationship to the SMS.

Planning Stages/ Key Players	Description	Corresponding EERE Process/Product
DOE Strategic Plan (S-1, S-2, S-3, CFO)	• 10- to 20-year strategic plan • Identifies the Department's mission, long-term goals, strategies to achieve them, and key intermediate objectives • Key inputs to the revised plan will include Administration policies and priorities and the Energy Policy Act of 2005	• EERE to provide input as required
EERE Strategic Plan (ASEE)	• Sets out the program and business activities at the EERE corporate level • Articulates strategic goals and strategies that shape future budget requests and guide program execution • Presents success indicators and metrics to be used for performance measurement and program evaluation	• EERE Strategic Plan • EERE Program Strategic Plans
EERE Multi-Year Program Plan (EERE Program Managers)	• Covers 5 to 15 years depending on the nature of the Program • Fills the gap between Strategic Plan and annual budgets • Establishes the Program's goals, objectives, and targets • Includes 5-year financial levels and staffing projections and associated performance objectives and measures	• Multi-Year Program Plan Template Phase II Guidance
EERE Capital Asset Planning (Mission Needs and Alternatives Analysis, DOE Order 413.3A) (Program Managers, Field Organizations)	• DOE Order 413.3A, *Program and Project Management for the Acquisition of Capital Assets*, along with DOE Manual 413.3-1, provides Departmental project management direction for the acquisition of capital assets with total project cost (TPC) greater than $5 million (Capital Asset Planning also referred to as "Project Assessment"). For example, projects requiring funding for design in FY 2008 (with a planned start of construction in the FY 2010/FY 2011 timeframe) will need to have an approved CD-0 (Mission Need Justification) by mid-June 2006. Preliminary Design cannot begin until CD-1 (Approve Alternative Selection and Cost Range).	• Capital Asset plans prepared as required and completion of CD-0, CD-1, and CD-2
EERE President's Management Agenda Initiative Plans (Facilities, Human Capital) (Program Managers, Field Organizations)	• Site/Facilities Business Plan: • Sites/facilities develop business plan for EERE • Reflects strategic and tactical plans • Addresses long-term (5–10 years) site goals and objectives • Integrates multiple/program perspectives • Identifies mission and program changes and direction • Identifies needed facilities and capital assets, and changes in the operating environment • Human Capital Plans address workforce planning components for achieving Program Plan goals including staffing allocations, succession planning, knowledge management, skills gap analyses, and a diverse workforce.	• Human Capital Plans are prepared per usual business practices

Table 4.6-1 SMS Planning Stages

References

Appendix A: Summary of EERE Programmatic Multi-Year Program Planning Template

Appendix B: Suggested Practice: Phase II Guidance Developing the Annual Operating Plan

DOE Guidelines for Strategic Planning may be retrieved from: http://www.osti.gov/policy/library/sp-guide.html

Department of Energy's Office of Energy Efficiency & Renewable Energy. (2002). *EERE Strategic Plan.* United States Federal Government, USA may be retrieved from: http://www.nrel.gov/docs/fy03osti/32988.pdf

Department of Energy's Office of Energy Efficiency & Renewable Energy (2006). *Multi-Year Program Plan Template Phase II Guidance*. United States Federal Government, USA. The MYPP Template may be accessed at: http://www1.eere.energy.gov/ba/pba/pdfs/eere_guide_mypp_0606.pdf.

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