



Guidelines for Strategic Planning

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U.S. Department of Energy
Office of Strategic Planning, Budget
and Program Evaluation

*GUIDELINES FOR
STRATEGIC PLANNING*

U.S. DEPARTMENT OF ENERGY

OFFICE OF STRATEGIC PLANNING,
BUDGET AND PROGRAM EVALUATION

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Overview

THE NEED FOR STRATEGIC PLANNING

Strategic planning is one of the integral steps in fulfilling the Department's mission. The role of strategic planning is to ensure that, through effective preparation, DOE programs and support activities are best positioned to achieve the long-term goals and objectives of the Department. Strategic planning will assist the Secretary, Deputy Secretary, and Under Secretary in setting the long-term directions and policies for the Department and in making decisions on near-term priorities and resource allocations. It will assist those who develop and implement programs by providing guidance for multiyear program plans and budgets.

The benefits of strategic planning include:

- C Building consensus around organizational goals, objectives, and priorities.
- C Providing the basis for resource allocations and operational planning.
- C Defining baselines for controlling outcomes.
- C Helping to evaluate Departmental performance.

Strategic planning has been carried out and effectively used in many of our programs and activities. Secretarial Officers are encouraged to develop and maintain strategic plans in their line and staff organizations to facilitate the kind of strategic thinking and management needed to ensure Departmental activities are carried out in a manner most supportive to overall administration and departmental strategies, goals, and objectives.

"If you don't know where you're going, any plan will do."

Peter Drucker

DOE formally required strategic planning at the programmatic level in 1990. Under the Government Performance and Results Act of 1993, all Federal agencies will be required to prepare strategic plans by September 30, 1997. In 1994, ahead of the statutory deadline, DOE issued the first Departmental Strategic Plan, *Fueling a Competitive Economy*.

The Departmental Strategic Plan is the foundation for all DOE planning, budgeting, execution, control, and evaluation activities by programs and support organizations. The Departmental Strategic Plan is supplemented with Headquarters programmatic and crosscutting strategic planning and by strategic planning at the Field level. Strategic planning is the foundation for multiyear program and operational plans that can drive daily activities.

HOW THIS GUIDE CAN HELP

The purpose of this document is to provide guidance both to those organizations and personnel starting the strategic planning process for the first time and to those reviewing or updating existing plans. This guideline should not be construed as a rigid or restrictive rulebook. Each organization is encouraged to develop enhancements they think may be useful in their planning. The steps outlined in this document represent a very simplified approach to strategic planning. This simplicity will allow flexibility while generating those minimum elements necessary to achieve a basic uniformity of approach that will

facilitate use by appropriate line, staff and field organizations. These guidelines have been formulated to help strategic planning teams as they plan for, organize, and prepare the Departmental strategic plan required under the Government Performance and Review Act and for any supplemental strategic plans by other DOE organizations. For a more detailed approach, refer to John Bryson's "*Strategic Planning for Public and Non-profit Organizations*" listed in the References Section.

WHAT STRATEGIC PLANNING IS

The **operational** planning with which most of us are familiar deals with **how** to get things done and with the resources needed (people, money, facilities, time, and information) to carry out tasks. Operating plans like budgets, capital line item projects, R&D budgets, project proposals, etc., are vital to the mission of the Department. They deal, however, with **how** to carry out programs to achieve some objective or budget assumption. Strategic planning deals with the question of **what** should be attempted. It deals with **what** objectives the programs and activities of the Department should be striving toward. Note that this is a basic and qualitative difference. It is not just a matter of the planning horizon being much longer. Adding 10 to 20 years to an R&D budget, for example, may make it a long-range plan but not a strategic plan. One distinction between strategic planning and the usual long-range plan is that of breadth. Long-range plans often are largely an extrapolation of the present mission, issues, opportunities, etc. into a predictable future rather similar to the present. Strategic planning assumes turbulence and changes; ponders future alterations in missions, markets, and customers; considers a variety of trends that may impact the organization; considers

opportunities and threats both internal and external to the organization; and seeks possible new future issues and alternative strategies to resolve them. Also, while strategic plans will spell out where we hope to be sometime in the future, they do not lay out a detailed road map to get there. They offer strategies—basic directions or courses of action—but not operating plans.

Another notable difference is that the operational plans we deal with are usually "bottom-up" plans, generated by the field or staff in accordance with assumptions they have been given and objectives to be reached. In strategic planning, which deals with the generating of the "right" objectives, we need to also use a "top-down" approach. The strategic planning process requires the best thinking of DOE organizations about the future they envision for the Department and the Nation. The question to ask is: "What do you envision the 'world' you're working in would be like in the long-term future if the programs or activities you implement were really successful?" Again, strategic planning requires the best thinking about the future we should strive toward—not reams of paper, not carefully crafted forecasts of what the future may be, not extrapolations of the status quo, and not the products of special staff consultants or of outside contractors. The output of this preliminary strategic planning component should be a thoughtful digest of your organization's thinking and discussions, summarized in as few pages as possible. (If the documentation is too long, the strategic planning team can prepare an executive summary of approximately ten pages that highlights the key elements that are described in the following section).

THE KEY ELEMENTS IN DOE STRATEGIC PLANNING

Strategic planning is not a science. At its best it is a process for helping organizations think about the objectives they should set if they are to fulfill their mission and then what directions they should move in to achieve those objectives. There are about as many strategic planning processes and approaches as there are strategic planners! But there are some common denominators and, although each organization is free to adopt different processes as seem most expedient or appropriate to their organizational component, the following six elements are recommended.

Mission

(Businesses, tasks, or purpose)

There may be several for a given organization. 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 what is our likely future?

Who are our customers?

What are our planning assumptions?

What are our strengths and weaknesses?

Vision, Strategic Goals, and Objectives

What do we hope to achieve and how will we know if we get there? What are the key performance indicators for us?

Strategic Issues

(Gaps between current situation and vision)

What obstacles or barriers do we see?

Strategies

(Courses of action to overcome barriers and accomplish goals) On what directions or

courses of action should we set out?

Program Planning

(Plans that translate strategies into actions)

Each of these steps is described in more detail in the chapters that follow.

THE “TIE-IN” TO THE DOE PLANNING AND BUDGETING PROCESS

No statement of mission, goals, and strategies can stand on its own, however. The value of any planning, strategic or otherwise, depends on whether the plan can be put into action. In the government context, this calls for a seamless integration with the national and departmental budgeting processes.

The key to effectively synchronizing planning and budgeting lies first, as we have said, in clarifying the mission, analyzing the situation, and establishing goals. Once these are outlined, they need to be considered in light of the overall budget parameters, and then reassessed. The Department has incorporated this flow of activities information into its strategic management system calendar for any given fiscal year, as outlined in detail in its *Strategic Management System* white paper. It thus ensures its success in enacting its programs and fulfilling its goals.

Strategic planning synchronized with the budget process identifies key performance measures to generate data for program assessment and evaluation. These new responsibilities under the Government Performance and Review Act of 1993 cement the tie-in between effective strategic planning and the budget process.

The Department outlines these measures and demonstrates the comprehensiveness of its strategic thinking both in the Policy overview of DOE's Budget Highlights and in its testimony defending Department budget requests on Capital Hill. Short-term program execution in particular depends on a quantifiable balance between specific goals and appropriations.

The Department's integrated system aligns strategic and operational planning with strategic intent, ensures that this planning drives resource allocation, provides for regular evaluation of results, and incorporates feedback.

LESSONS LEARNED ABOUT ACHIEVING SUCCESS IN STRATEGIC PLANNING EFFORTS

Experience with a number of different approaches to strategic planning within DOE, its contractors, and other institutions suggests some important "lessons learned." These include:

- a. **The same people who are accountable for getting the job done must do the strategic planning.** Information gathering, analysis, and other activities may be delegated to staff specialists or to subordinate managers, but defining the mission, setting goals and objectives, and developing strategies should be a participatory process involving the key "line" managers. It is almost impossible for a task force or team to transfer to a "higher" level group of managers the sense of conviction or excitement they developed in days of agonizing through a planning process. Any plan developed by people other than those directly responsible for "running" the part of the enterprise in question will

almost certainly be filed away along with all the others done by "special groups"—regardless of the quality of the plan or the competence of the planning group.

- b. **The key managers involved must recognize strategic planning is an important part of their job duties, and they must be willing to commit the time, energy, and resources required for the work.** When the scheduled dates for strategic planning meetings approach, there is always the realization that this week's crises are much more pressing than 10 to 30 year thinking! It is crucial that the time required to do this thinking be set aside and protected for the sake of all concerned.
- c. **The one thing certain about the future is that it will be different from what we expect it will be.** No matter how seriously or actively we plan for 2000 or 2030, in just a few years threats and issues will change dramatically, just as they have in the past few years. Accordingly:
 - C Do not spend too much time or detailed effort in forecasting elaborate scenarios of the distant future.
 - C Revisit your strategic plan at least annually and update it when appropriate to reflect the changing world.
 - C Involve new members of the management team and take advantage of their new insights and contributions.
- d. **If there is not a close linkage with the rest of the program planning, budgeting, and evaluation processes,**

with a constant infusion of strategic thinking into ongoing operating decisions, management actions will usually evolve into, or simply remain in a largely reactive, crisis-driven, status-quo mode.

- e. **A key to success in strategic planning is the willingness and ability of key line managers and their “direct reports” to think beyond the current crises, priorities, and leader’s desires. They should assume an organizational perspective that considers the success of the DOE enterprise in meeting the immediate and longer-term needs of the Nation and society.** The trap into which many people fall is to start thinking about where they are today and then extrapolate to (1) what they think it is possible to achieve or (2) what they think will most satisfy some important stakeholder. The courageous and much needed approach is one where the top DOE officials (using the best inputs available to them) recognize the vital role of their part of the organization, and try to envision what would be the best course for DOE to pursue for the longer-term interests of the Nation.

- f. **Following a strategic planning effort, many of those involved feel that the process is more valuable than the product. It is the debating, sharing of convictions and doubts, and deliberating that is most valued.**

Later, when circumstances change and must be dealt with, management teams will have a strong basis on which to build and agree, having already discussed and reached accord on many of the underlying issues.

* * *

1. Planning for Strategic Planning

WHO SHOULD DO STRATEGIC PLANNING?

In the 1960s, **staff** strategic planning groups were in vogue throughout U.S. industry, but it was found that unless the people who are ultimately responsible for the programs do the strategic planning, it is very sure to be a futile exercise. **Setting DOE strategic goals and objectives and developing the key strategies to achieve the missions of the programs and other activities of the Department is a task the Secretarial Officers must be personally involved in.** There are many areas in which support and help by staff specialists will be most useful (for example, data collection, trend analysis, documentation), **but delegating the key tasks of envisioning and of debating goals and strategies to staff specialists will not work.**

On the other hand, a strategic planning team should not try to do the strategic planning job in a vacuum. Especially with programs that are complex technically or managerially. Field experts may have thought deeply about longer-term objectives, obstacles, and possible strategies. Their inputs should be sought, as well as perhaps their participation as planning team members.

SINGLE PLAN OR MULTIPLE PLANS

Some secretarial officers, operations office managers, and national laboratory directors will feel that their responsibilities can be best planned for as separate missions or “businesses,” each with its own strategic plan: mission statement, situation analysis, etc.

Moreover, Administration initiatives may affect more than one program area resulting in the need for “crosscut” strategic planning. Developing separate plans will require more time and effort, but it will also help clarify and sharpen the focus of the secretarial officer’s overall efforts and will be beneficial in the subsequent program planning activities.

Strategic planning involves a great deal of effort. The question of how many planning units to choose is of major importance at the beginning of the process. The wide variety of unique programs and activities in the Department, suggest that flexibility is needed in the process so Secretarial Officers can make the packaging choice that will most benefit their organizations.

PLANNING PERIOD OR HORIZON

Secretarial Offices may determine the time frame for their strategic plan that makes the most sense for their organization. Probably the minimum time frame that should be considered is for the next 10-year period. At the other extreme might be a 40-year horizon for programs or activities that require a long time frame. (As will be seen later, this time frame is a horizon for **envisioning** the future, and the task will **not** be to lay out a detailed plan for how to get there—only how to get moving toward it). The President, the Congress, and the American public should be able to see where we are going and why—near term, mid term, and long term. The decision on planning horizon defines what this long haul is for each organization.

TIME AND EFFORT REQUIRED

Wrestling with the long-term goals and future of a vital part of the DOE business is going to take some extra time and effort. We are very practiced in handling crises and this year's priorities. Thinking strategically is something with which many of us have less experience. Managers should be realistic about the effort required, which will depend on many factors.

The first factor is the size of the organization, which can vary in size from the entire Department to the smallest subdivision. The first DOE strategic plan required 9 months from inception to final publication. Hundreds of top managers from throughout the Department were involved in the discussions and decisions surrounding the effort.

In the case of a relatively uncomplicated program or activity, our estimate is that the minimum time might be reduced, to perhaps 6 to 8 days for writing the first plan. This estimate assumes the minimum effort to meet these guidelines and assumes maximum use of staff and a facilitator to expedite the process. Many organizations (including DOE components) have spent much more time than this in developing their strategic plans. Review and update can be done in half that time if the planning team membership remains intact.

The second factor depends upon whether the team is developing a new plan or updating an existing plan. A new strategic plan generally takes more time to develop than updating an existing plan. In either situation, members may be unfamiliar with the strategic planning process and will have a learning curve to overcome. Even when updating existing plans, the team may require more time to deliberate issues and

reach consensus on issues related to changes in mission direction or situation.

Third, the time required to write or to update a strategic plan is also dependent on the number of people on the planning team. The ideal team, is made up of five to seven "direct reports" and the accountable line managers. Increasing this number to 10 to 15 members requires longer meetings to ensure participation by all, but often the benefit of more participation justifies the added cost.

During certain strategic planning phases, all employees in an organization may be involved in brainstorming sessions in order to obtain the broadest possible input into the process. A relatively small core group (three to five individuals) is usually involved in synthesizing and analyzing the strategic planning deliberations and drafting the final plan. A larger group could provide input into deliberations, review of drafts, and final approval of documents.

Because the process of strategic planning will probably run over a period of months (just for one cycle), another problem encountered is turnover in planning personnel. This factor may introduce extra time in planning, because it is important (especially in small teams) to quickly bring new people up to speed with the process.

THE PROCESS

It is almost impossible to do strategic planning as part of the normal business day, interrupted by daily crises, urgent phone calls, and emergency meetings. It is best done in offsite meetings, with well-planned, well-prepared, tight agendas that recognize the importance of

participation by all of the key managers involved.

Experience has shown also that the use of a competent facilitator to assist in designing and conducting strategic planning meetings can help considerably in keeping the sessions on track (there is often a tendency to revert to discussions of today's issues). A competent facilitator can help the group's productivity and efficiency.

In later chapters of this document, specific suggestions are offered about how to set up and plan meetings for developing and updating strategic plans. The wide variety of programs and activities with greatly different considerations of customers, trends, etc. means that a generic, simple, process model should not be mandated and that each team will want to design a process appropriate to its own organization.

WHAT SHOULD THE PRODUCT LOOK LIKE?

The strategic planning teams should document their strategic thinking in whatever length and detail they feel will best meet their needs for guiding the program planning that must follow in their Headquarters and Field organizations. Experience elsewhere has shown that piles of paper supporting strategic planning are of little value. Multiyear program planners will be primarily interested in the goals, objectives, issues, and strategies together with some of the thinking (situation analysis and planning assumptions) that led to those choices. For reviews with the Secretary, other DOE Principals, and for use outside of the Department when necessary or desirable, an abstracted, very succinct summary version is recommended. It is acceptable to condense the

summary into three to five pages if the heart of the planning can be condensed that much. This executive summary should not exceed approximately 10 pages, and it should be written in a straightforward, simple style.

The content of the summary 10-page version will include the key outputs of the planning team's work: the mission statement, key situation analysis factors (trend analyses, planning assumptions, stakeholder considerations), key strategic goals and objectives, key performance indicators, key strategic issues, and key strategies. An example of a summary of the strategic plan for a fictitious DOE program is included in the Appendix to give an idea of what the executive summary might look like.

REVIEWING AND UPDATING STRATEGIC PLANS

Strategic plans should not be thought of as final statements or immutable creations, but rather as the best ideas of today's leadership team in view of today's realities. The one thing that is certain about any strategic plan is that it will soon be wrong in its details! The future will be different than it is pictured today. There will be new technologies, new laws, new threats, new opportunities, new crises, etc. It is essential that change is anticipated and allowed for.

Strategic plans should be reviewed at least annually by the planning team. Whether plans are reviewed more often is up to the planning team's leadership and should be a function of how fast and how extensively change is occurring and impacting their program. For instance, any changes in mission, mandates, or key personnel may trigger the need for a revision, and if those changes are major, a completely new plan may be needed. For most

changes in a program's environment, the needed revision or updating can be accommodated in an annual review process such as the one described in Chapter 9. The "ownership" of the plan needs to remain **with the planning team**, so avoid the temptation of letting any individuals "adjust" or "fix" parts of the plan to correct specific problems between reviews.

In the annual review, the planning team, some of whom will be new to the group, need to revisit all the elements of the plan. The major input to the review should be briefings by staff specialists on various aspects of the situation analysis, especially: changes in market demands, competition, stakeholder expectations, laws, economy, technology, and other trends.

The planning team will then need to do a self-assessment of the situation (strengths, weaknesses, opportunities, threats, planning assumptions, progress on key performance indicators). This work, combined with the staff briefings, allows the team to effectively update their goals, objectives, and strategies. Assuming good preparation, the review and updating should be efficiently completed in one annual offsite.

* * *

2. Mission Statement

Every organization exists to serve a purpose. Each component part of that organization also exists to carry out some task or mission of its own.

Agreeing on what this unique mission or purpose is provides the essential foundation for strategic planning.

Because most line managers rarely have a need to discuss it, the mission—or basic purpose of their organization—is often taken for granted and not scrutinized. Discussing it and getting agreement by the planning team on as clear a statement of what the job(s) is/are can be very desirable. Far from being

“(A)n organizational mission statement takes time, patience, involvement, skill, and empathy.”

Stephen R. Covey, *The 7 Habits of Highly Effective People*

obvious, clear statements are often hard to develop, and choice of goals/objectives is usually sensitively dependent on concept of mission.

Programs result from laws, Presidential directives, Secretarial initiatives, regulatory requirements, court orders, memorandums of understanding, treaties, etc. Because programs are often authorized over an indefinite period of time, their mission statements should generally avoid the inclusion of dates unlike strategic objectives (which are explained later). For example, placing a person on Mars by the year 2020 is

a strategic objective. Exploration of the solar system and beyond for the benefit of all human kind is a mission statement.

Mission statements (like organizations) tend to stand for long periods of time. But they should be examined and debated periodically both by those to whom the organization “reports” and by those accountable for carrying them out. A whole hierarchy of missions exists in a large organization, and each level derives its mission from the mission of the parent. It is important for the planning team to be certain they are “performing” the right mission.

The mission statement serves to clarify the purpose of the organization for people both within and outside. In addition to clarifying the job(s), it should serve to narrow and focus, as well as to inspire and motivate. It should be debated and reduced to the essence— 100 words is one “rule of thumb”—that tells **why** we do **what**, for **whom**, and **how** in an easily understandable way. It should describe what products or services are provided to what customers (products) or clients (services) or sponsors, and what activities or kind of work we do to provide these products or services.

Note: Help Menus are provided throughout the guidelines to facilitate discussions during development of strategic plans.

* * *

MISSION STATEMENT—HELP MENU

Will it be clear to every one within and outside the organization?

Does it tell what our job is, what needs we are trying to fill, for whom, how?

Is it clear who 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 competence?

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?

MORE HELP

Reference 6, Chapter 5, p. 93

Reference 8, Chapter 8, p. 117

Reference 3, p. 107

3. Situation Analysis

PURPOSE

The steps already covered will ensure that the following is accomplished:

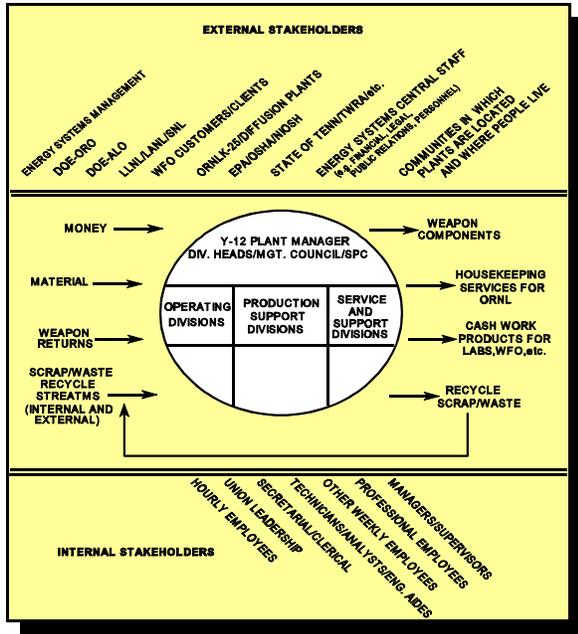
- a. Debating and writing the mission statement (purpose).
- b. Deciding whether it is desirable to break down the broad mission for this particular segment into two or more separate units and preparing a mission statement and plan for each.
- c. Deciding on the general planning time horizon that is appropriate.

The next step is to see where we are today in regard to that mission. The situation analysis (some call it 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 and the external and internal pressures and factors likely to affect our future and achievement of the 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, market place, competition, etc., can get very detailed and voluminous. And 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, particularly looking at the organization’s stakeholders, key performance indicators, and trends that represent opportunities or threats, internal weaknesses/strengths, and planning assumptions.

STAKEHOLDER NEEDS, WANTS, AND EXPECTATIONS—WHO ARE OUR CUSTOMERS?

Stakeholders is a common term in strategic planning and refers to those people who have or feel (perceive) they have a stake in the future success of the business or unit in question. We need to have a pretty clear idea of who these people are and what their needs and expectations are as we develop the longer term strategic objectives of our business. Stakeholders obviously include management and employees (internal) and executive, legislative, regulatory groups, public representatives, etc. (external). One exercise that is often useful is that of drawing and discussing a stakeholder model of the business. This model simply diagrams the business with its annual inputs and outputs (not quantified). The critical question is “Who are our customers and who should they be for this planning period?” This diagram may help the team think through what products are produced for what customers, what services for what clients, what information for what sponsors, as well as who are the external and internal stakeholders. The stakeholders’ points of view and expectations should all be considered in developing our strategic goals and objectives.

An example of a stakeholder model is shown in the box below. It is the process of developing and debating that is of the most value, not the actual graphic that results.



The discussions of **who** these groups are and what impacts they should or should not have on the strategic planning being developed should be useful. In past work, interviewing samples of various stakeholder groups in a threat-free environment has proved to be interesting and valuable.

EXTERNAL STAKEHOLDERS (EXAMPLES)	
White House and staff	scientific/technical community
Congress and staff	state governments
EPA	private sector
Office of Management and Budget	general public
Department of Defense	suppliers
NRC	communities where DOE facilities are located

INTERNAL STAKEHOLDERS (EXAMPLES)
DOE Top Management
Employees—clerical and professional, union
Field Offices and National Labs
Contractors—e.g., support service and M&O

TRENDS

A valuable part of the strategic planning process is discussion and debate of the various trends that the group feels may impact the “enterprise” during the planning period. The important “trick” is to identify the key factors in the success of your segment of DOE activity and to see how those have been impacting the program in the past as well as projecting what is likely to be the future direction. Examples of the kinds of trends that may be felt likely to impact activities are the following text box.

These are only illustrative. For each organization, the question is what trends are most appropriate for analysis and success of the activity. Planning team leaders will want their staffs to collect and analyze data for many of the trends listed above. Analysis of some trends will not be necessary (i.e., trends that will not impact your “business”). The output of this exercise should be the planning group’s recognition of those trends that pose either opportunities or threats, and should be addressed in developing goals and strategies later on in the process. Either **threats** or **opportunities** may well present a strategic issue: “How can we respond to ___ given this situation?”

TRENDS	IMPLICATIONS
Market Needs	What will be our share? increases/decreases in needs/demands.
Sociological	demographics, impacts on sites, environment
Legal/Regulatory	federal, state, local changes/outlook
Political	public acceptance, arms control, congressional pressures
Economic	budgets, productivity pressures
Institutional	DOE organization structures, changing roles, rightsizing
Technological	improvements, obsolescence, breakthroughs
Facilities	aging, fragility, modernization (for what?)
Staff	aging, replacement of expertise, diversity

STRENGTHS AND WEAKNESSES (OR ASSETS AND CONSTRAINTS)

Another important exercise for helping to identify goals and objectives is to do a performance self-assessment, looking very broadly at the program or activity in question. What are we really good at in this particular area, and in which areas or activities do we wish we could do better? Like the trends study above, weaknesses identified may be real obstacles to achieving our strategic goals and may be appropriately listed as strategic issues. This exercise will help to identify the most important weaknesses.

BENCHMARKS

In business or corporate strategic planning, the term benchmarking—as a method of assessing performance—usually entails an external comparison with competitors. Just as effectively, however, the term can be applied internally. As such, benchmarking emphasizes continual improvement. In most DOE programs, we need to benchmark ourselves, that is, with our past best performance, striving over the long haul to carry out each of our missions efficiently and effectively. Continual performance improvement must be based on honest appraisal of strengths and weaknesses together with participation of all our people.

In those few areas of DOE programs where an actual competitive situation does exist the situation analysis will include a careful analysis of previous achievement and later the developing of appropriate goals, issues, strategies, and action plans. In some DOE areas, actual competition has been minimized by the way missions have been defined (Lead Labs, Nuclear Weapons Complex production assignments, etc.) and in still other areas there is no other public sector or private sector entity doing such work.

For those areas where actual competition does not exist, organizations should use internal benchmarking as a means of continually raising internal standards of performance and achievement. Using “the best” in the world or the nation as a reference point for our situation analysis may be a useful way to ensure performance standards are as high as possible.

PLANNING ASSUMPTIONS

Throughout the course of looking at all the aspects of situation analysis, the team should be alert to the implicit assumptions they are making or to those they choose deliberately to make as they think about the longer term future of their activity. Assumptions may be inherent in stakeholder needs and wants, customer and client projections, trends of

market needs, and so on. It is important that the team be explicit about these planning assumptions so they can be presented up front in the written strategic plan. If the broad-based assumptions (not boiler plate, but assumptions that impact objectives) are clear and well presented, they can serve as a useful checkpoint for review of the plan to see if updates are needed as well as serve as a point of departure for review of objectives and strategies.

* * *

SITUATION ANALYSIS—HELP MENU

Stakeholders

Who cares about our success over the planning period?
External = "bosses," regulators, various publics, customers, etc.
Internal = "bosses," auditors, employees, Contractors, etc.

Future Trends

Will they impact us? How?
Opportunities and Threats = institutional, political, economic, and technological

Market Needs

Will demands increase/decrease?
What will competitors do? Threats

Planning Assumptions

Strengths and Weaknesses

For more information see Reference 6, p. 117; or Reference 8, p. 135.

4. Vision, Strategic Goals, and Objectives

DEVELOPING STRATEGIC GOALS AND OBJECTIVES

Strategic goals and objectives are the **ends** to which we will strive, or what we hope to accomplish in the long run (before the end of the planning period). It is helpful to make distinctions between differing kinds of ends: ideals (never reached), objectives (reached in the planning period), and goals (might not be reached in the planning period). Differing usage of these definitions—for goals and objectives—may be encountered. But the convention for DOE strategic planners is to use the term “goals” to describe the broad ends and “objectives” to describe ends we will try to achieve **during** our planning period. In the context of long (10 to 40 year) planning periods we will most often talk about strategic objectives.

Lyndall Urwick, one of the pioneer management specialists of the World War II era, wrote in 1941:

“The first characteristic of a good plan is that it is based on a clearly defined objective.”

Whether the objectives are motivational and creative will depend much on the spirit of the planning team as they consider the present situation, the stakeholder’s expectations, the various trends (threats and opportunities), and the assets and liabilities (past performance).

ENVISIONING THE FUTURE

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 would be like at the end of the planning period they have chosen. A question to raise is, “What would the DOE XYZ organization’s situation be—what would you see in place—in 2020 if we **really** were successful in our

programs?” This should lead to useful discussions of differing visions of the future. And then this should lead to agreements on some of the objectives we want to strive toward. 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 will then 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. There will typically 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, 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.

WRITING AND EVALUATING GOAL/OBJECTIVE STATEMENTS

For strategic objectives to be of the most value, they need to be easily understood, to suggest ways of measuring their achievement or non-achievement, and to have a good balance between challenge and achievability.

Achievement will be measured by key performance indicators appropriate to the activity

involved. The objective should include a date if it is to be achieved before the end of the planning period. **Credibility** and inspiration will follow if the objective appears to be not too ambitious, but significantly advanced beyond today's status quo.

Questions the team will want to ask about their proposed objectives are:

1. **Do they suggest some means for measuring their accomplishment? What are the performance indicators going to be?** (e.g., percentage of energy demand supplied by nuclear, projected unit cost of power.)
2. **Does the objective include a date by which it is to be achieved**, if that date is earlier than the end of the planning period?
3. **Will the objective as stated be useful in “driving” or guiding the preparation of the multiyear, operational, and other program plans?**
4. **Are they challenging and bold enough:**
 - a. To show people we want some-thing other than just the status quo?
 - b. To be stimulating, and to bring out even better efforts from our DOE team, revealing of our directions and desires for a better tomorrow?

5. **Do they appear achievable**, i.e. realistic enough to have people be convinced we are serious, not just dreaming?

Conservative managers will try to set targets they are pretty sure they can meet. Risk takers will try to set targets that will be attractive to those allocating the resources or that appeal to the most outspoken stakeholders. A balance is needed. If the probability of reaching the objective is too low (10 to 20 percent), it may be exciting and challenging but people will not believe it is possible and will likely not be motivated long. Just the same, too safe an objective (80 to 90 percent) will not be very motivating either.

Strategic objectives are intended to inspire and motivate the organization to reach farther than they think they will be able to grasp. It is quite acceptable for their probability of success to be 0.5, whereas objectives in an **operational** plan must have a much higher certainty of being reached. Someone quipped: “There are no such things as unreasonable objectives, there are only unreasonable time frames!”

George Washington, just before the beginning of the Constitutional Convention in 1787, hearing whispers from his fellow deputies of the need for caution and for being careful not to propose too bold or innovative ideas that might rouse opposition, spoke out against the idea of offering half measures that were sure to succeed, rather than to risk whole measures that might fail and discredit the delegates.

“It is too probable that no plan we propose will be adopted. . . If to please the people, we offer what we ourselves disapprove, how can we afterwards defend our work? Let us raise a standard to which the wise and honest can repair . . .”

— Carl Van Doren, *The Great Rehearsal*. Penguin 1986, p.15.

Another question that should be asked about a goal statement is whether the purpose or reason is self-evident. Sometimes it is useful to add an explanatory phrase “in order to...”

PERFORMANCE INDICATORS

As stated earlier, one essential feature of a well-written objective is measurability.

The planning team after narrowing down their list of strategic objectives should address the question of how progress can be tracked. It is more a matter of whether we are on the right track than a matter of accountability (as it is with operating plan objectives). If progress is not up to expectations, the planning team should seek the root cause and reconsider their *strategies*.

In most strategic plans there will be two or three *key* performance indicators (or critical success factors) that can be quantified and used to assess the success of the directions established. See, for example, the fictional list of three on page A-8 in the Appendix. With strategic objectives reaching out a decade or more, the shape of the curve will have to be chosen somewhat arbitrarily, with little value from close numerical tracking. Nevertheless, watching the performance indicators on all objectives should be helpful to the team’s assessment of the chosen strategies.

EXAMPLES OF STRATEGIC OBJECTIVES

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

C Provide a cost effective research and development program ready for decisions

to be made with regard to deployment by the year 2020.

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?

C 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 by using passive safety features eliminates possible repetition of accidents like those at Three Mile Island or Chernobyl.

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

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

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

C 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 2000.

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

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

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).

C Maintain U.S. prominence in basic research.

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

* * *

EVALUATING AN OBJECTIVE—HELP MENU

Is it measurable? What are the key performance indicators? How can we build an information system to track our progress?

Is it challenging and bold? Will it excite and motivate? Do we have at least a 50:50 chance of pulling it off?

If it is to be reached before the end of your planning horizon, is there a date in the objective?

Will it be as desirable an objective in 2030 or 2070? Probably an **ideal**, could it be sharpened?

Will this objective as stated be useful in driving multi-year program planning?

Is the reason behind the objective apparent? Would it help program planners if you added some more words?

For more help see Reference 7, p. 23.

5. Strategic Issues

DEVELOPING STRATEGIC ISSUE STATEMENTS

If the objectives we have set to translate our vision into reality are as challenging as they should be, there will be major differences between the situation our activity “is in” today and what we want it “to be” (as shown by our objectives). Strategic planning tools of various kinds have been developed for analyzing and closing this gap. Perhaps the simplest approach is to study the objectives in light of the situation analysis and then ask, “What are the key barriers or obstacles or problems that must be overcome in getting where we want to be?” These, boiled down to some critical few, are the **strategic issues** that must be addressed.

This is the first step we take toward answering the question of “**how**” do we reach our objectives. Most managers are very experienced if not proficient in problem solving and by instinct feel much more comfortable in dealing with the “how” rather than in the “what” area of objective setting. Articulating the issues can be a useful step in problem solving—making sure the problem we are about to solve is clearly understood.

Again it is important to accent the word “strategic”. One must anticipate the tendency people on the planning team may have to simply make a list of this year’s problems and what they know the top management is most anxious about. The key is to get the team to think over its **strategic** objectives, and to identify the most important (not all) and most likely problems or issues in achieving them (science, technology, funding, time, facilities, people, and information).

EXAMPLES OF STRATEGIC ISSUES

Strategic issues take many forms. They are most useful when they clearly define a problem so that the planning team can easily move on to suggesting courses of action to solve the problem. Here are some hypothetical strategic issues in the form of statements and questions.

- C The United States cannot function in an energy emergency without refineries capable of converting strategic petroleum reserves and other domestic oil into refined products.**
- C How can DOE develop an understanding and acceptance by DOE and by the majority of the public of the real relative risks of alternative energies?**
- C Insufficient funding, lack of coordination, and emphasis on short-term goals of R&D activities defer the development and commercialization of new technologies.**
- C Large increases in the price of electricity have occurred at some utilities when nuclear power plants start commercial operation. Consumer reaction to these increases has been strong, leading utilities to shy away from large capital projects, both nuclear and non-nuclear.**

C How can DOE’s “XYZ” organization go about achieving the downsizing needed in the long term (strategically) without wrecking the operations, R&D, and environmental actions needed at its sites in the short term?

C To what extent could innovative productivity programs reduce the funding pressures of remediation, safety, security, compliance, audit, and other such critical activities?

* * *

STRATEGIC ISSUES—HELP MENU

What are the key obstacles that may keep us from realizing our vision?

Is it likely to be a *strategic* barrier? Not something that will be taken care of in the next year or two?

Is it specific enough to suggest strategies for overcoming or resolving it?

Is it just a restatement of the undesirable situation we are in today?

For more help see Reference 6, p. 139.

6. Strategies

The discussion of issues will generate a lot of ideas for how to solve those problems. In developing strategies we finally get to the point of the whole process, that of coming up with the **directions** we want to move toward now and in the future to reach our long-term strategic objectives.

WHAT ARE STRATEGIES?

Strategies are **courses of action** that will lead in the direction we must move to reach an objective or to overcome some obstacle. We can, of course, set courses of action (strategies) without thinking in any depth about objectives. We often do so both personally and professionally. We buy something we want and then think of reasons to justify the purchase. Many of us have encountered orphan programs or projects whose objectives are not well-understood or accepted by all. With so much careful planning work having been done in past years on the major Department programs, none of these strategic planning steps will be virgin territory. Careful strategy development is critical to achieving DOE's goals and objectives and the Nation's future well-being.

FORMULATING STRATEGIES

The difference between strategies and action plans is mostly in detail. The basic concern of both is getting on with the mission. The **strategy** lays out the **direction**, and the program plan addresses detailed questions of resources and timing. Both deal with the achievement of desirable goals and strategic objectives. The strategy will be an enduring course of action (like a policy) that will be a guide for many years, and not just a single project or program that will be carried out in the next year or so. Strategies will be specific

enough, though, so that they suggest some programs or things to try. Tactics are contained in multiyear program plans and identify specific actions. For example, a strategy is keeping employees informed; a tactic is investing in the acquisition of a local area network computer system.

Here is a case study in strategy formulation. Early in a strategic planning effort by one DOE contractor, the objective was to "establish a formal planning process for the longer term future excellence of the site operations." Brainstorming on strategies (courses of action-direction) yielded the following alternatives/options:

- C Hire a consultant to tell us what to do and how.
- C Appoint a committee of MBA types to do it.
- C Appoint a small team of line managers to do it.
- C Involve all the top line managers.
- C Focus on a long-term (10-year) future.
- C Focus on both long- and short-term.
- C Do it every 2 years from scratch.
- C Do it on rolling-basis, with a new 10-year period each year.

After debate and evaluation, the team consensus strategy was:

Involve the entire top management team, focus on the longer-term (10-year), and do it on a "rolling" basis.

The strategic direction this provides to the subsequent action planning is clearly helpful. The strategies above do not discuss details of implementation (who does what and when?), but they provide useful guidance and direction.

EXAMPLES OF STRATEGIES

Some hypothetical examples of strategies may be of value in showing the general kind of direction that will be useful in driving program planning. Examples are the following:

- C Inform the public about the safety of existing plants and provide a public information program that will allow a clear comparison of the risks from alternatives.**
- C Inspire and motivate the entire DOE network to heightened performance by changing its culture to one of building pride in DOE's outstanding leadership and our accomplishments of the past, present, and future.**
- C Build stronger, more effective DOE management teams at the top level by involving key line managers in**

- C designing and planning together for the long term, (strategic planning).**
- C Energy resource development, including energy conservation and energy efficiency improvements will be prioritized by weighing and balancing the trade-offs among reliability, risk, cost effectiveness, and environmental impacts.**

One potential pitfall in strategic planning is that of the planning team getting so enamored of their work that they generate many more strategies than the organization can handle or devote resources to. Whether this is a problem will depend on the planning team and their "level" in the enterprise. It is most often a problem when sub-units are doing strategic planning. The secretarial officers and their direct reports, as it has been suggested, have to be personally involved in the strategic planning steps up to this point. The next step of multiyear program planning will also require their accountability, but will require the major input and involvement of the rest of the organization.

* * *

STRATEGIES—HELP MENU

In what new directions do we want to move to overcome the key barriers (issues)?

Is it an enduring direction or just a one-time action? It should be valid over the planning period.

Is it motivational and challenging?

Is it believable that we can move in that direction?

For more help see Reference 6, Chapter 8, p. 163.

7. Next Steps: Program Planning, Budgeting, and Operational Planning

Objectives, issues, and strategies serving as assumptions and guidance, the next step is to develop specific plans of action.

The action itself (multiyear program planning, subsequent budget preparation, and implementing programs) is what substantiates the entire process.

“The best plan is only a plan, that is, good intentions, unless it degenerates into work. The distinction that marks a plan capable of producing results is the commitment of key people to work on specific tasks. The test of a plan is whether management actually commits resources to actions which will produce results in the future. Unless such commitment is made, there are only promises and hopes, but no plan.”

Peter Drucker
The Practice of Management

Each of the key components are integral to success. These processes—strategic planning, budget formulation, budget execution, and program evaluation—are interdependent and designed for effective program implementation and delivery. Strategic planning determines the direction the Department will take toward achieving its goals and fulfilling its mission. Budget formation defines priorities for making the most of both resources and staff. Budget execution delivers good and services.

Program evaluation assesses how well the Department has implemented its programs and is progressing toward achieving its goals. Each of these steps supports and depends on the others. Without any one, the Department’s success in fulfilling its mission is not ensured.

Multiyear program planning is the heart of the DOE system to carry out the strategies and to move toward our strategic objectives. The strategic plans should provide effective guidance and assumptions in the form of long-term direction (strategic goals, objectives, and strategies). From multiyear program planning comes the more specific short-term operating budget proposals that are submitted to the President and Congress for approval. DOE programs also use the multiyear program plans to develop performance measures for the Field. After appropriations are enacted into law, Approved Funding Plans focus resources on the fiscal year’s activities.

We and the various public stakeholders will now be better able to see that and how the near-term and mid-term projects and programs are focused on what DOE believes to be the best interests of the Nation call for in the long term.

* * *

8. How to “Do” Strategic Planning

PURPOSE AND ASSUMPTIONS

One of the many approaches that might be used in strategic planning work is presented in this section. The purpose is to give those who have not previously been through this process an idea of the minimum time required and how this time can be arranged most effectively.

This approach assumes a simple program, full team participation, no turnover of team members, familiarity with the details of the mission, program, and the various stakeholders by all team members, and maximum use of staff in gathering information. Teams will probably require more time than is actually allotted to satisfy these assumptions.

SAMPLE FORMAT APPROACH

The first step is for the planning team leader and his/her direct reports to meet in a pre-planning session to agree on the following (see Chapter 1):

- a. Number of strategic plans to be written for their organization (strategic planning units).
- b. Planning period or horizon.
- c. Who will be on the strategic planning team(s) and who will chair? Include stakeholders? Include customers?
- d. Agreements on staff involvement and liaison, calendar and off-site location preferences, etc.
- e. Agreement of the group on using a facilitator to help with design and execution of the process.

It will be helpful if the group drafts a mission statement at this preplanning meeting. (See Chapter 2). If the mission is carefully crafted, it will be of much value in the discussions about whether the sub-businesses ought to have separate strategic plans. (Are the technologies, facilities, customers/clients, goals, objectives, etc. distinct)?

For each strategic planning unit, the format of a series of meetings to do strategic planning might consist of the following:

AN INITIAL HALF-DAY SESSION

The planning team, facilitator (if one is used), and a staff liaison person (who may be one of the team) hold a meeting away from the usual office and conference rooms, but not necessarily off-site.

Agenda:

- a. Talk about strategic planning, what needs to be done, why, and when.
- b. Talk about the steps and things this group needs to do in addition to the minimal described in these guidelines such as stakeholder inputs, research papers, special analyses, and staff assignments.
- c. Talk about the use of staff specialists and for which steps:
 1. Situation analysis including trends, opportunities, and threats etc.
 2. “Minutes” if any. The height of piles of paper is not a key performance indicator in strategic planning!

- d. Talk about the mission for this organization and draft a statement.
- e. Schedule all follow-on meetings.

THE INITIAL OFF-SITE

A 2-day session is held probably a month later at which the focus is on situation analysis, vision, and setting goals and objectives. The situation analysis **needs** should be discussed at the earlier half-day session and this session scheduled to allow staff time to properly prepare.

Agenda:

- a. Polish the mission statement and reach consensus.
- b. Situation analysis—external factors
- c. Trends and implications— Opportunities and threats— presented by staff and then the group discusses that they wish to address.
- d. Situation analysis—internal factors past performance, present situation, strengths and weaknesses— presented by staff and group discusses importance to mission.
- e. Stakeholders—Who do we serve in what ways—what needs do they have that we need to address? Who should we be serving?
- e. Start on vision and goals and objectives.

THE SECOND OFF-SITE

A 2-day session (combined with the first session or not long afterward) is held at which the focus is on vision and goals and Objectives.

Agenda:

- a. Envisioning the desired future, if needed, and brainstorming goals and objectives.
- b. Evaluating and selecting goals and objectives.
- c. Weighing (if desired) and sharpening objectives.
- d. Defining the performance indicators.
- e. Start on strategic issues.

THE THIRD OFF-SITE

A 2-day session (combined with the second session or not long afterward) is held at which the focus is on strategic issues and strategies.

Agenda:

- a. Completion of issues identification.
- b. Brainstorming of strategies or evaluation of staff proposal.
- c. Selection of strategies.
- d. Checking all elements of plan for compatibility and completion.
- e. Consensus on how plan will be packaged by the staff.

THE CLOSING SESSION

A half-day, on-site session is held about a month later to review the draft strategic plan. (Sent out in advance of session).

Agenda:

- a. Revisit and refine strategies.
- b. Review evaluations or feedback the team has requested from “outsiders.”
- c. Review and comment on the written plan staff has prepared.

FURTHER COMMENTS

1. If the “business” is complex or if the team leader wants inputs from component parts of the organization, the meetings will take more time.
2. It is desirable to preserve an atmosphere from meeting to meeting wherein team members can feel very easy about switching their positions and viewpoints and not be concerned about any constituencies. The model of our

Nation’s 1787 Constitutional Convention is a good one to follow, having confidential discussions until a consensus is reached on the final product. Then the plan and strategies need to be publicized and buy-in elicited.

3. Controlling the number of people in attendance at off-site meetings will encourage candor and openness, and limit discussions to team members. Only true participants should be present. Staff people should be asked to attend only long enough to make their presentations.
4. The off-site meetings may be scheduled in various packages to suit the team; if the team does not mind night sessions or weekends, it is possible to condense the job into two off-sites.
5. The emphasis on off-site meetings to do strategic planning arises from the difficulty of taking time out from the normal business day to step back and think about what the long-term future might hold and what directions to take. It is difficult to think about DOE’s 30-year future (or that of any person/groups future) in the midst of a day when one is worrying about survival issues for this month! Well-designed off-site meetings with a committed planning team of key managers can effectively facilitate this crucial long-term thinking.

* * *

9. How to Update Strategic Plans

PURPOSE AND ASSUMPTIONS

The approach suggested here for an annual review and update is centered around a 2-day off-site. It assumes that the same team that devised the plan is the group best qualified to review the approved plan of record. More than 2 days may be required if the program mission is complex (multiple) or if the planning team is larger than eight or nine people. (See Chapter 8).

The purposes of the off-site are:

- a. To get the team leader and top team members away from the daily crises to focus on the long-term.
- b. To bring new team members up to speed on previous vision and direction setting.
- c. To foster “performance improvement,” upgrading all aspects of the previous planning.
- d. To provide a useful framework for self-assessment of status and progress.

SAMPLE APPROACH

The plans for the review and update session should be made at a staff meeting 2 months before the off-site. Issues to be addressed include:

- a. Time and place to hold the off-site.
- b. Invitees to be members of the planning team. (See Chapter 1)
- c. Facilitator to help design and expedite the process.

- d. Specialists needed to prepare briefings/analyses for the team.

The latter briefings are critically needed inputs for the team. They provide the new situation analysis and raise the points about changes that have occurred that may need to be reflected in the plan. Exactly what topics should be further analyzed at the off-site will depend on the particular program or activity, but these topics might be considered:

- a. Changes in market demands or outlook.
- b. Changes in competition.
- c. Changes in stakeholders and their expectations (including Congress, the public, etc.).
- d. Changes in laws and regulations.
- e. Changes in technologies.

In addition to these briefings, some internal staff person or preferably a member of the planning team should prepare a review of the validity of the planning assumptions used in the plan of record for presentation to the team.

Last, a staff person should be asked to prepare charts or analyses that show the status and progress on the strategic objectives and the key performance indicators.

These presentations will enable the team to have a very productive review and will facilitate their strategic thinking, but these people will require time to prepare their presentations, hence the suggestion that the specific topics and assignments be made well in advance of the off-site.

THE OFF-SITE—FIRST DAY

Following the introductory remarks, the situation analysis inputs should make up the first part of the session. The focus must be on the longer-term implications and impacts. (Time required: 6 hours, including 15–30 minutes per presentation with equal time for questions and answers).

Following the presentations, the team (by itself) should do their own self-assessment of the key factors, strengths, weaknesses, opportunities, and threats to ascertain whether any significant change has occurred. (A proven, useful technique is described in Reference 6, page 126). (Time required: 2 hours)

That evening, a discussion of the mission and vision statements should address whether modifications to improve their clarity or to make them more inspiring could be made. If any significant change in mission has occurred, then this offsite format should not be used and instead the mission change should be tackled first thing. (Time required: 2 hours)

THE OFF-SITE—SECOND DAY

The team should start with a self assessment of progress made on the Key Performance Indicators and on the performance indicators for strategic objectives in the plan of record. They will need a well-prepared briefing on this, and need to discuss whether any changes need to be made in milestones, targets, or indicators. (Time required: 3 hours)

The team should review key strategic issues next. The situation analysis presentations of the first day and reconsideration of the strategic objectives just completed should make this a productive discussion. (Time required: 2 hours)

The team should talk about their strategies to determine whether any modification, additions, or deletions are warranted in view of their new look at the program or activity and in view of the progress or lack of progress to date. (Time required: 3 hours)

At the close of the session, the team needs to decide whether any or just how much revision and repackaging is required, assign the job for revising, and set a ½ day or appropriate time several weeks hence to review and approve the new plan.

* * *

10. Summary

Strategic planning, someone said, is what you do to be sure the place you get is somewhere you want to be! A framework has been offered that should help Secretarial Officers and their key line managers hold some good discussions about the long-term future directions of their organizations. This will be of direct benefit to them in building a stronger consensus and understanding of that future direction, and should be very productive in building a stronger management team. For these reasons, the **process** has usually been found to be more valuable than the **product**. Even in a lengthy report, one cannot communicate the debates, exchanges, and struggles a group goes through in arriving at consensus on such vital issues as are at stake in strategic planning. Careful attention to forming the planning team and to protecting the schedule and commitment each person makes to planning for the future in the midst of today's crises is vital to the success of the **process**.

In addition to these benefits for the planning team themselves, additional benefits will accrue from the sharing, review, and discussion with the Secretary, other peer managers, and the organization reporting to the planning team. The strategic plan components should really help shape the program planning and work execution of the Field Offices and Sites. Strategic management, in which the long-term vision impacts day-to-day decisions, should become more natural and more

effective—hopefully keeping this week's crises in better perspective.

The one certainty about DOE's future is that our concepts and plans are bound to change. We must resist the temptation to "cast in concrete" our long-term objectives and strategies. Rather we should program our thinking to provide for periodic updates and changes or corrections in our directions and strategies.

The approach advocated in this document will appear to some people an overly simplistic or much too coarse treatment of strategic planning. It has been prepared with a view to helping DOE's strategic planners in strategic management of their very diverse activities. Some of them have had considerable experience and success with strategic planning and, for them, the minimal steps outlined here will not be burdensome. For those who have not been personally engaged in such work before, it should prove a rewarding experience.

Some of the work of planning strategically, notably the data and analysis activities, may be delegated. However, the primary work of mission definitions, objectives setting, issue formulation, and strategy development will require the personal involvement of top management and their "direct reports." That very personal involvement will lead DOE to make even greater contributions to the well-being of our Nation and the world in the century ahead.

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APPENDIX

Example of a Hypothetical Strategic Plan

FOREWORD

It will be useful to consider that the primary audiences and beneficiaries of the strategic planning effort are the following:

The Secretary, Deputy Secretary, and Under Secretary—in determining long-term strategic directions and policies for the Department and for making the final decisions on near-term resource allocations and priorities. In briefings with the Secretary on strategic plans, it will be very helpful for the Secretarial Officers to highlight the changes and differences between the situation, outlook, and assumptions that now exist and those which existed at the time of the last review. Focusing most of the discussions on the new or modified objectives, issues and proposed strategies will be most productive.

Secretarial Officers—in clarifying missions, reviewing the present situation, identifying clients and customers, and highlighting long-term (beyond the next few years) objectives, issues, and strategies.

Administrators, Program Developers, and Implementers—in providing guidance to those who are responsible for developing 5-year as well as shorter-term implementation plans and for seeing that the job gets done.

The purpose of strategic planning is to focus the attention of the leadership on what DOE

might and ought to try to accomplish and how DOE might best serve the public interest in the long term, and then to set the course to start to get there. This year's strategic plan is not to be thought of as an immutable creation, but rather as the best "shot" of today's leadership in view of today's realities. Change will occur: new circumstances, new threats, new opportunities, new crises, new people, new dreams. So this year's plan will hopefully be reviewed and changed which will enable program planning and resource allocations to be made more wisely, guided by our collective best judgment of where the organization should be in the long term.

What follows next is a "dummy" plan summary, invented just for the purpose of illustrating the kinds of contents that might constitute the summary of a strategic plan for a DOE-type program. Any resemblance to actual situations is fortuitous, and the names, dates, and terms have obviously been chosen to help emphasize that the case is entirely fictitious. For this imaginary program, a planning horizon of 35 years, to 2030, is used. This fancied summary of a number of days of intensive debate and study by the hypothetical planning team may be helpful in illustrating the kinds of summary outputs one might generate from the various elements of a strategic planning process.

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*THE MISSION STATEMENT FOR
THE DOE ELECTRONUCLEAR
PROGRAM*

The mission of the DOE electronuclear (EN) energy program is to understand the science and to develop, improve, and demonstrate the **technology** and, if the demonstrated economics and market needs then warrant, to facilitate the **commercialization, introduction, and use** of **this** new source of energy in the United States and by other peoples of the world, especially by developing nations. Experiments in our National Laboratories, who pioneered the basic research and development of this new energy source, convincingly show the promise of EN to provide large amounts of electricity to the public at lower overall costs and with fewer environmental impacts and at lower safety or health risks to the public than will those alternative energy sources which can supply the major electrical market needs.

DOE's role is to stimulate and nurture the development, testing, commercialization, and use of this technology by the public and private sector and by foreign nations, especially developing countries, with as little investment and cost to the Government as required to take advantage of the great promise of this new technology for serving the public interest.

*ELECTRONUCLEAR PROGRAM
VISION STATEMENT—2030*

By 2030 we expect this new technology to have been fully developed and be well into commercial use, replacing fossil and nuclear plants that have reached the end of their licensed life, as well as supplying new grid

capacity where needed. EN technology should be generating power at total costs at least 20 percent (perhaps 50 percent) less than competitive sources, thus meeting the Nation's needs for abundant, cheap, domestic origin, safe, and environmentally benign power and providing the bridge needed until fusion power becomes a reality on a large scale. There should be substantive reductions in oil imports, carbon dioxide, and radwaste generation. Utilization of EN by developing countries will be a major contribution to the alleviation of hardships of their peoples. DOE's role in this technology for the next decade will be as the prime mover and producer of the technology. In the decade 2010 to 2019, assuming success, the utilities should take over in commercializing the technology, and DOE should be able to reduce its efforts sharply. By 2020, DOE should be able to phase out all DOE work other than that required to give technical support to the Government's regulatory agencies.

*SITUATION ANALYSIS - PRESENT
SITUATION AND PLANNING
ASSUMPTIONS*

Present Situation—1998:

The EN phenomenon, discovered by Parker at the U. of P. in 1992, was confirmed by researchers at three of the National Laboratories that same year. Research and development programs were undertaken at those Labs and at several Universities, and the potential for generating electricity soon became apparent. Because of the promise for producing electricity more economically (significantly less capital intensive) and with no

hazardous or radioactive wastes and minimal environmental impacts, well-integrated major R&D programs were mounted by DOE at Universities and four National Labs. These programs, now underway, are focused on the development of the component equipment, the process, and the facilities needed for substantive demonstration of EN power generation by 2005 to 2008. Planning for the demonstration is a cooperative venture involving representatives of utilities and regulatory groups as well as the scientists and engineers, under the overall direction of DOE. Independent economic evaluations are being sponsored by several impartial groups with complete access to all DOE information. Progress thus far has been very promising. Since our last plan review, the EPRI 1998 EN Outlook has been published and confirms the current DOE projections of potential \$/Mwday costs.

The DOE Position:

The DOE position today is that we have been the major funder (85 percent), leader, and supporter of the technology thus far. The Department of Commerce has at our request initiated a special program to improve the metrics for EN monitoring. The Utilities, both public- and investor-owned, have been extremely interested in watching progress and are funding independent studies of the potential for commercialization, but have not been willing to engage in any major cost sharing of the development work yet. At the last Annual Conference, COGEMA of France gave full reports on the work they initiated two years ago, and PNC of Japan announced successful but very small-scale

pilot plant runs this year. The UKAEA continues to experience problems with maintenance of the prototype equipment we supplied them for testing.

Major Planning Assumptions:

- C The development of electronuclear technology will continue at its fast pace and have to overcome problems that will block or be major obstacles to successful commercialization.
- C Alternative sources in competition with EN (i.e., petroleum, coal, nuclear, fusion) will not achieve major breakthroughs in solving their environmental, availability, economic, or public acceptance problems.
- C Market demands in the U.S. for electricity will continue to follow the forecasts of the past few years, sensitive to per capita and GNP indicators. Conservation programs will affect demand, but not more than that assumed in the official DOE forecasts.
- C The indications found in the EN waste recycling trials in the QNL pilot plant runs that there will be no mixed or hazardous waste effluents will be substantiated in work with larger scale process equipment and heat fluxes.
- C The trend toward increased regulatory involvement in planning for capacity increases by utilities will continue making it essential that we continue our efforts to involve them in following the early stages of EN development and planning.

- C There will be continued pressure to reduce total DOE spending; thus, the needed EN program funding increases must continue to come from DOE reprogramming, requiring close working relationships and interchange of competitive position forecasts with alternative energy source offices.

SITUATION ANALYSIS — KEY STAKEHOLDER CONSIDERATIONS

Utilities = Major interest has been shown by both municipal, cooperative, and investor-owned utilities as the primary potential exploiters of EN technology. DOE's Annual Grand Junction Application Conferences have been heavily attended since their inception in 1993 and, by the evaluation of the utility reps attending, have been very successful in satisfying their needs. EPRI and EEI have each sponsored independent evaluations of the overall commercial \$/Mwday potential which generally confirm DOE projections. Since our last plan update, DOE has organized and invited their participation in an EN Advisory Board of American Utilities (elected by their associations and serving on a rotating basis) for the purpose of collaborating on planning strategies and cost sharing.

Universities = Ten universities and three colleges have programs in aspects of EN science which complements the work in the National Labs. These programs are partially funded (40 percent) by DOE. A continuing problem is the number of grant requests from other institutions which cannot be funded.

Regulatory Agencies and Oversight

Bodies = Because of the major impact of regulatory bodies in the past on the competitive position of alternative energy sources such as nuclear, EN decided to invite representatives of the key regulatory groups to learn about EN early in its development years and to comment on planning and potential regulatory issues. This includes invitations to participate in the Annual Conferences and special briefings as desired. Members of Congress, their staffs, and other key Executive and Legislative groups are specifically included.

Other Government Agencies = There is a developing interest by NASA, the Department of State, and the Department of Transportation in EN technology. They have expressed interest in a Memorandum of Understanding and formation of a joint administrative council. We continue to believe this to be premature, pending pilot scale demonstrations, and will hold annual briefings addressing their very different interests until that demo is accomplished.

Foreign Governments = Third World and developing nations have expressed interest in EN because of its advantages compared to nuclear, fusion, oil, coal, or natural gas power plants. They have not been invited to the Annual Conferences, but DOE has held one United Nations briefing co-sponsored with the State Department and is planning another in two years. Major R&D programs are under way in France, UK, and Japan, and our Labs are watching their progress closely.

Other Sectors = Most interest to date has been in central station applications, but in the past year the number of inquiries to

Headquarters and National Labs about potential applications in the automotive, transportation, and aerospace sectors make it desirable to mount a small effort at one of the Labs to assess potential applications in these areas.

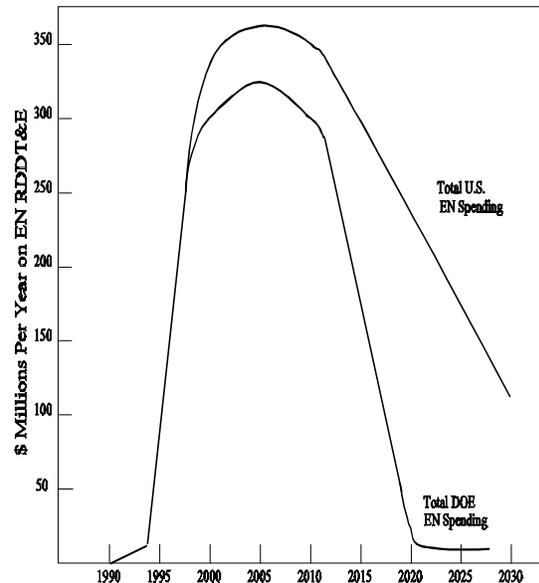
Public = The public acceptance problems with nuclear power appear to carry over to EN in the reaction of the media, despite all the good efforts of the scientists, engineers, and program administrators to set the record straight.

Internal Staff = Three National Labs have had major EN program efforts for 5 or more years. Smaller support-type efforts in specialty areas have been started in many other DOE sites and private sector shops. Cooperation in the early years was almost nonexistent, but the EN Management Council instituted in 1996 has proven fairly effective. Sharing of long-range goals and objectives has led to energetic competition, not toward different objectives, but to see who can reach the common objectives first and with least resource expenditure.

SITUATION ANALYSIS — KEY TRENDS

Research and Development Programs:

The program has been underway only 5 years, and is still in the steep part of a normal learning s-curve. The progress made thus far is good. Projections suggest that total DOE spending will peak about 2008. (See chart below). DOE work should start decreasing about 2010 as commercialization either begins to take place or earlier if the potential will not be realized. Funding at

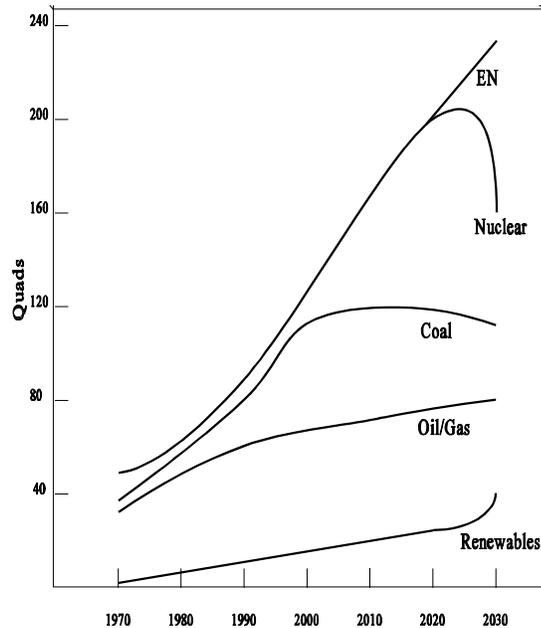


the \$300 million per year level is required for the next 2 years, increasing to \$350 million for FY 2000 and 2001 period. The commercial small-scale demonstration project (scheduled to start design/construction in 2005 and start operation in 2015) is now scoped at \$900 million (1998 dollars). The primary technology questions (threats) remain in the area of reactor reliability, availability, and maintainability. The major program issue (threat) is the problem of fully funding the ongoing R&D and the upcoming demonstration. A substantial political problem will be in the choice of location for the \$900 million demonstration, which will require a decision in the 2002 time frame.

Market Demands:

DOE forecasts of demands and the contributions of the competing sources are shown below, jointly developed by the Headquarters offices. Growth is expected to

somewhat lag behind GNP. (See chart below taken from the annual U.S. Energy Supply/Demand Forecasts prepared jointly by the concerned Program Offices).



Regulatory Pressures:

Due to the effective efforts early in the decade, compliance issues have essentially been resolved, and institutional and technological structures and systems are in place to assure that R&D and operations throughout DOE are responding to the current needs. The EN program is serving as a model for proactive leadership in working with regulatory groups in advance to anticipate and head off problems.

KEY STRATEGIC GOALS AND OBJECTIVES—PLANNING HORIZON TO 2030

EN Technology:

C The technology will be demonstrated on a

pilot scale by 2004.

- C By 2005 the main elements of the basic science of the EN effect will be well understood.
- C The commercial-scale demo will be operational by 2012, if earlier success justifies that step.
- C Utilization of the technology by the U.S. and by foreign utilities or governments should be improving the quality of life and saving precious fossil fuels for better uses for many people by 2030, and the EN share of the U.S. energy supply market will be 33 percent.

Compliance:

- C DOE will provide proactive assistance to Federal, State, and local regulatory bodies in establishing prudent regulations to assure the safety of personnel working in EN facilities and to protect the quality of human health and environment in the surrounding areas.

Environment:

- C By 2003, DOE will be viewed nationally as an "environmental champion"—a leader in protecting and improving the environment around its EN and other active and formerly used sites.

Safety:

- C DOE's EN program will be the leader in safety (as indicated by fully integrated injury and accident statistics) among the "big power" alternate sources: coal, fission, fusion, and petroleum.

Public:

- C DOE will strive to achieve broad public acceptance for this power source. The goal is to develop an atmosphere of trust between DOE and the public regarding the EN program through a campaign of information and participation that highlights DOE's mission of safety and efficiently serving the public interest.

Facilities:

- C Until 2015, DOE will provide and maintain a facility asset base at those National Labs involved in the EN program which will permit them to continue to support and solve problems arising in the use of EN energy until commercial industry can provide its own support, or until it is apparent EN will not become a practical energy source.

Quality & Excellence:

- C The EN Program will press for, stimulate, and reward improvements in EN technology, applications, and use, which will reduce the unit costs of power, \$/Mwday (DOE critical success indicator, see next page).
- C A special objective for the near term is to reduce projected unit costs, \$/Mwday (as currently projected by independent EPRI studies) by 20 percent below 1998 projections by the year 2010 (in year 1998 dollars).

Note —The categories will, of course, vary with the program under consideration, and can usually best be discerned after brainstorming and then boiling down a longer list of Objectives.

KEY PERFORMANCE INDICATORS

Key indicators of progress and success of the EN program are the following:

1. Share of the energy market supplied by EN relative to other supply sources, in percent of total U.S. quads for a given year.
2. Projected unit costs relative to other supply sources. The key performance indicator used by DOE will be the projected total costs i.e., construction, operations, safeguards and security, environmental, waste, etc.—but not R&D) over the projected life of a commercial plant divided by the projected total electricity delivered to the bus, in 1996 dollars per megawatt-day, \$/Mwday.
3. The safety, health, and environmental objectives performance indicator statistics need to reflect the integrated power supply business (i.e., the data should include statistics for all the needed inputs, supplies, waste processing, etc., for a given kind of power business, not just that of the central station).

Note—The emphasis here is on the “key” performance indicators. Each one of the strategic objectives will be measurable and those performance indicators should be utilized in program self-assessments if the data are meaningful for the time period under review. But there will usually be a few “Key” performance indicators, perhaps like number two above that wraps together the impact of several objectives and will be especially useful to the Secretarial Officer and planning team for evaluating the impact of their strategic thinking and actions. These key performance indicators should be listed here.

KEY STRATEGIC ISSUES

- C Sharply increased funding is needed to complete the pilot scale demo and prepare for the commercial demo, but substantial cost sharing will not be negotiable until the promise of EN is more certain. Alternative sources (e.g., nuclear, fusion, coal) are competing for funds and have had much larger total investments over the years.
- C How can the Department phase out and discontinue work on less promising/less needed programs of long standing that still have some merit as well as a cadre of specialist experts and fragile facilities—in order to undertake new programs like EN that have a greater expected performance potential than competing technologies and greater longer-term benefit to the Nation?
- C How can the Department work best (in these development years) with licensing, regulatory, and oversight bodies to serve the Government’s overall interest in assuring that safe and environmentally benign electricity is available for all its people?
- C Limitations imposed by the Federal Power Act, Public Utility Holding Company Act, and State and local regulation unwisely inhibit development of supply options within the electric utility industry.
- C How can DOE provide EN technology and equipment to developing countries and at the same time protect the interests of U.S. firms that wish to market that technology for profit?
- C The technical problem of reuse of camerized source vessels must be solved over the next 5 years (before commercial demonstration design is ready) if waste treatment costs are to be acceptable. This is a potential fatal flaw in reaching target unit costs.
- C Qualitative changes in our approach to the public and to the media are needed to overcome image problems of the past and to rebuild pride and confidence in the future of electronuclear power.

KEY STRATEGIES

Cost/Productivity:

- C Maximize value added for each dollar spent. Ask each EN group to set their own specific productivity and quality

improvement targets and liberally reward the best achievers, both organizations and leaders.

- C Build a pride in achievement culture in EN which demands and honors excellence and celebrates important “wins.”

Service/Customers:

- C Work proactively to meet the needs and wants of utilities for information that will aid their planning for supplying electrical demands of the longer-term future.
- C Make available or facilitate the process of granting low-cost loans to utilities needing to switch from high environmental impact technology to EN.
- C Work with public utility commissions to modify rules so that utilities can include the cost of construction-in-progress in their rate base to encourage them to switch to EN or other less costly (overall) power technologies.

Technology:

- C Strive for earliest possible identification of technical, operating, management, waste, off-gas, reliability, availability, maintainability, public relations, etc., problems in applying EN technology both in this country and in foreign developing nations.

- C Capitalize on experience with existing power technologies by using **their** experts to serve on critical review panels to find “soft spots” in the developing EN technology applications.

International:

- C Build a favorable climate for use of EN technology by developing nations to raise the quality of life for their people.
- C Work toward international cooperation in R&D to share risks and costs of development.

Human Resources:

- C Each year, strive to hire (both in Headquarters and the Field) a few of the best new graduates in science, engineering and management to help materialize the EN vision of 2030 and to upgrade (by replacement) the quality and competitive ability of the EN program staff.
- C Honor top achievers who meet or exceed 5-year program objectives, and provide national recognition for the key EN program accomplishments .

Facilities:

- C Use only existing DOE sites for new EN facilities to minimize capital and operating costs.
- C Modernize existing site facilities for EN use only if and as they are required to meet EN strategic objectives.

Public Relations:

- C Provide not only full disclosure of all substantive problems encountered with EN technology, but also provide the media and public information about the graded or relative risks involved so as to allow full understanding of their seriousness or importance.

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