Strategic Energy Plan  
and Planning Handbook

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List of Acronyms and Abbreviations

CHP combined heat and power

DOE U.S. Department of Energy

EERE Office of Energy Efficiency and Renewable Energy

EPA U.S. Environmental Protection Agency

kW kilowatt

LCOE levelized cost of energy

NREL National Renewable Energy Laboratory

START Strategic Technical Assistance Response Team

SWOT Strengths, Weaknesses, Opportunities, Threats

USDA U.S. Department of Agriculture

VAGP Value-Added Grant Program

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About the DOE Office of Indian Energy

The DOE Office of Indian Energy was established by Congress to provide federally recognized Tribes and Alaska Native entities with technical and financial assistance to encourage, facilitate, and accelerate energy and energy infrastructure development in Indian Country.

In direct response to the requests of Tribes and Alaska Native villages, the DOE Office of Indian Energy has designed key programs to supply tribal leaders and their staffs with the knowledge needed to make informed energy decisions—decisions with the power to help:

• Stabilize energy costs

• Enhance energy security

• Strengthen tribal energy infrastructure

• Promote tribal self-determination.

By providing reliable, accurate information, quality training, and expert technical assistance, the DOE Office of Indian Energy seeks to empower Tribes with resources, skills, and analytical tools that bolster decision making and increase capacity to advance the next generation of energy development in Indian Country.

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What Is the Strategic Energy Plan and Planning Handbook?

The Strategic Energy Plan and Planning Handbook is a tool for tribal communities to use in achieving energy goals in both the near- and long-term. This Handbook intends to help tribal leaders and community members define their unique energy goals and priorities through stakeholder input, dialog, and consensus-building. It provides a step-by-step process, which tribal communities may wish to use as a roadmap for discussion and decisions related to strategic energy planning and energy project prioritization. The steps outlined in the Handbook include blank text boxes; these are provided for communities to input their own information and outcomes from energy planning discussions. A benefit of using the Handbook in this manner is that the information entered is automatically compiled into a cohesive summary, in effect establishing the community’s strategic energy plan. The inclusiveness of this planning process intends to cultivate broad community buy-in, promoting the likelihood that the energy goals and priorities established last over time and can stand alone or be incorporated into part of a Native community’s economic development plan, sustainability plan, climate action plan, or master plan.

Such a planning effort can serve as the framework of a sustained and thoughtful approach to local energy use into the future. It can create opportunities to integrate energy, environmental, economic development, and community interests in the same way that a business might create a vision and a business model around sustainability.

In this Handbook   
you will find:

A step-by-step process for tribal community leaders to use in developing a strategic energy plan―a roadmap toward achieving shared energy goals in their communities.

Developing an energy plan for your community is good planning and sound business practice. It involves developing a comprehensive understanding of current energy use and costs, provides insight into efficiency and conservation strategies already underway, and reveals valuable opportunities to further reduce energy costs through new programs and activities moving forward.

What are the benefits of a strategic energy plan?

In recent years, American Indian Tribes have become much more aware of the many benefits of energy planning. Having an energy plan in place—developed to meet identified objectives—clearly spells out your community’s priorities. These may include:

* Cost savings for tribal members
* Potential revenue from renewables
* A stronger economy
* Greater energy independence and security
* Local influence over energy facility siting
* More energy efficient communities
* Healthier communities
* A cleaner environment
* Regional tribal coordination and collaboration
* A chance to demonstrate leadership.

Community priorities can provide valuable guidance in times when tough decisions need to be made amid tightening budgets, natural disasters, or changing regulations. In addition, having a strategic energy plan in place positions your community to be ready for new opportunities as they arise.

The planning process is also an effective way to engage the community in a discussion of shared concerns and values and for community members to prepare for the future. Asking community members and stakeholders for their input, setting goals in collaboration, and engaging all stakeholders in choosing the best and most practical steps to accomplish these goals can be a very rewarding endeavor and a great opportunity to build community and community member capacity.

What does it look like? Does this apply to me?

Yes! The strategic energy plan process can benefit all types of Tribes, regardless of their size, financial resources, energy environment, or level of previous planning. Strategic energy plans can be brief documents used to inform decisions in tribal and utility planning, or they can be detailed guidebooks with goals, implementation plans, measurement and verification procedures, and reporting requirements. Plans can focus solely on energy use within tribal buildings, facilities, and fleets; or they can encompass activities for the entire community, coordinated with existing utility, private sector, regional, and state activities.

When should I start? How long does it take and what kind of investment will it require?

The initial strategic energy planning can take between several months to one year to complete, depending on the objectives and the breadth of the plan, the extent of stakeholder engagement, and previous planning experience. Launching a planning process while you have federal funding or other support in hand can enhance your community’s ability to implement initial activities, programs, and practices that enable a transition to a sustainable, long-term approach that operates independently of federal financial assistance.

The largest investment needed for the planning process itself is time—community members and leaders will need to devote enough time to make the plan inclusive and thoughtful. Typically, there is no single funding source for projects identified and prioritized within a strategic energy plan; but, in most cases, it is helpful to have a designated tribal contact for writing and proposing grant applications for project funding and financing.

How to use the START Strategic Energy Plan Handbook

This guide provides an overview of community energy planning for tribal communities, using a step-by-step approach to develop the plan. This method has a high chance of success, because it is based on community member and stakeholder buy-in and tribal leader commitment. Not all communities will need to follow all steps, nor follow them in the exact order presented, but the process is designed to incorporate a broad range of relevant parties, maximize solution-based thinking, and develop an actionable plan that can be carried out by community leaders.

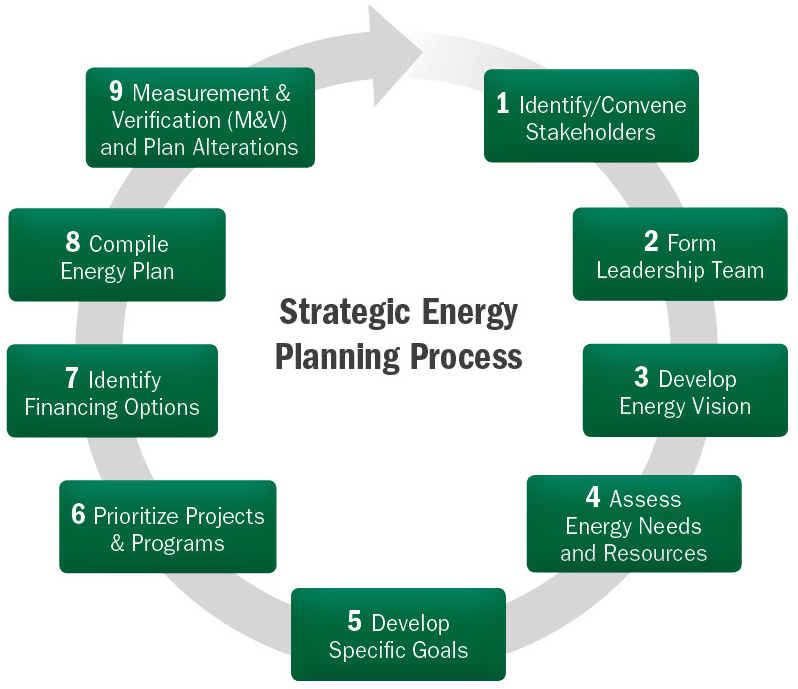
As an extension of this Handbook, the DOE Office of Indian Energy has developed an online webinar on strategic energy planning available on the National Training & Education Resource site, [www.nterlearning.org](http://www.nterlearning.org) (search “Indian Energy”), as well as an Energy Resource Library that provides links to helpful tools and resources to assist Tribes in the actual processes outlined here.

START Strategic Energy Planning Process

The basic cycle for the development of an effective strategic energy plan is illustrated in the figure below. This step-by-step approach will lead you through a process developed from experience with community, city, state, and tribal energy planning. The process is represented as a continuous cycle, indicating that, even once you have a completed plan in place, revisiting, revising, and updating the plan is a valuable exercise.

Each step in the strategic energy planning process is discussed in more detail below. There are some activities, however, that are not limited to particular steps but should be in place at the beginning and integrated throughout the planning project, including:

* Secure a champion of the strategic energy planning process; having top-down commitment is critical
* Network with other Tribes, communities, and organizations to learn about plans, practices, and opportunities for collaboration
* Communicate activities to your community often. Consider using interactive Web-based features, including a community planning website and regularly scheduled community meetings.



STEP 1: Identify and Convene Stakeholders

Stakeholder and key community member engagement is central to the development of the strategic energy plan. This outreach should include representation of all those who generate, control the sale of, sell, or use energy. It is important to consider the following stakeholders.

* **Local utility representatives:** Utility involvement in the process is important because the utility has the most access to the customer (the consumer), as well as institutional memory and unique knowledge of the energy sys­tem’s opportunity and limitations. They will prove invaluable as you collect data on energy usage. They may also provide essential program implementation and help in securing funding. Util­ity buy-in to changes in the status quo is invaluable to the effectiveness of any proposed implementation.
* **Community leaders:** Lead­ership representation and support from government leaders such as Tribal Council, chairman/chairwoman, school district board members, and decision makers from multiple agencies provides confidence in the process, increases par­ticipation interest, and can improve quality imple­mentation. In the end, the agencies are the locations where the majority of the plan will be carried out, so participation, understanding, and buy-in to the process is critical.
* **Local facilities managers:** These represent the on-the-ground users of energy with practical information on the community’s practices and infrastructure, and they can help identify strategies and actions that can save taxpayers’ money by making government operations more energy efficient.
* **Community businesses and industry:** The commu­nity’s energy users often have constraints that must be considered to maintain and grow economic development through a strategic energy plan. These energy users may also serve as very effective champions for energy efficiency and renewable energy.

Step 1 is important because:

You are proposing to spend public money for public benefit. You need to get buy-in from stakeholders. These people will tell you important things about energy use and current activities.

* **Regional intertribal organizations:** Regional intertribal organizations can provide insight and resources to assist various regional interests.
* **Community members:** While recognizing that orga­nizations that represent many people will likely have a more powerful voice; individual residents should be welcomed at the discussion table as well. Input and reactions from residents can be very useful in identi­fying potential implementation challenges. Include homeowner associations, neighborhood representatives, community activists, low-income advocates, and senior tribal members.
* **State-** **or regional-level administrators with an energy focus:** Other public administrators can provide information on energy programs that exist at the state and regional levels. Whatever strategies you choose to adopt, it is important to keep in mind that they will be implemented within the context of existing statewide energy strategies.
* **School districts:** These represent large energy users and also often provide excellent sources of insight and enthusiasm for the process.

Stakeholder engagement is a critical undertaking to developing an effective and enduring plan. It can be the longest and most time-intensive step. In order for this to work, identify and include the stakeholders who *must* be engaged, rather than all who would be *nice* to have engaged. When identifying stakeholders, having a bal­anced representation is also important for success. Ensure that both extreme and moderate viewpoints are represented in your stakeholder group to get the most representative outcome.

***Tip:*** *Develop an “organizational chart” or graphic of the stakeholders involved and how they relate to each other. While strategic energy plans do not always include this step, it can be an effective tool to have on hand. It can help the leadership team identify and engage all of the right stakeholders and governing bodies. This can be an effective means of demonstrating the breadth of interests and support around the strategic energy plan to potential partners and funding sources.*

Consider using some or all of the following to gather input across your stakeholder groups:

* Workshops/Open Houses
* Surveys/Questionnaires
* Public Displays
* Informational Campaigns
* Interviews and Focus Groups
* Websites and Social Networking
* Attending *Their* Meetings.

Effective engagement requires open, informed dialogue. Ideally, this leads to tribal member buy-in and the recognition that the process and outcomes were designed by and for the community. Stakeholder meetings can focus on introducing the planning project or gaining support of key stakeholders. Be sure to engage every stakeholder to solicit their cooperation, and encourage them to share what they have already accomplished in terms of energy efficiency, conservation, and sustainability. Good facilitation is key—take extensive notes and check in often with participants so they can validate your understanding of their points and feel they have been heard.

***Tip:*** *This outreach effort is often supported by tribal planning budget or general funds, or perhaps by grant funds. You may find inexpensive help with meeting administration and facilitation from nongovernment organizations, graduate students, or interns from local colleges.*

|  |  |  |  |
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| **Handbook Activity-Step 1: Identify and Convene Stakeholders**  Identify and list those who generate, control the sale of, sell, or use electricity, gas, and heating fuel within the community or region | | | |
| **Stakeholder** | **Name/Title** | **Organization** | **Contact Information** |
| Local utility representative(s) |  |  |  |
| Tribal leaders |  |  |  |
| Tribal facility managers |  |  |  |
| Community businesses and industry |  |  |  |
| Community members |  |  |  |
| State- or regional-level administrators with an energy focus |  |  |  |
| Colleges, universities, and other large institutions |  |  |  |

STEP 2: Establish a Leadership Team

No successful strategic energy plan has ever been accomplished without effective leadership to drive the process and provide continuity across many diverse stakeholders and interests. This leadership ideally has a few active advocates:

* Champion: An executive-level authority that will champion the process.
* Plan Advocate: At least one on-the-ground advocate to drive the process on a daily basis.
* Leadership Team: A cross-cutting group of stakeholders to provide broader support and visibility.

These roles may be held in a number of different configurations—the structure outlined here is not a requirement—but having clear and visible leadership and the ability to motivate others to keep the process underway is vital.

**Champion:** Any successful community energy program must have a top-down commitment to reduce energy consumption. The energy planning process should have a highly visible, executive-level sponsor, or other influential member(s) of the community. This component of the leadership team is a political or management designation—it provides executive sponsorship and the sustained vision throughout the planning process. If a Tribe lacks a champion for energy issues, it can be difficult to implement recommendations. Many communities assign energy issues to an internal department, such as the planning department. Relying solely on one departmental assignment may not result in the broad-based support needed to carry this effort forward.

**Plan Advocate:** Just as important as the energy champion is a day-to-day advocate who is prepared to spend the time necessary to organize and communicate the energy planning effort. This person can be a volunteer from tribal council or another committed party or member within the Tribe. This person’s persistence will be critical to the success or failure of the energy planning effort—they must also be, in effect, a champion of the process. This role will likely require a great deal of administrative and management work, as well as good communication skills, as the responsibility for coordinating most of the activities outlined in the following steps will fall to this role.

**Leadership Team:** In addition to these critical individuals, designating a formal leadership team will drive the process more effectively. It is necessary to choose a team that has the power to make decisions, direct the funding resources, and promote the strategic energy plan throughout the process. It is important to match who will be involved with the depth of planning activities, for instance:

Step 2 is important because:

A leadership team has the power to make decisions, direct funding resources, and promote the project throughout the process.

* If the planning effort is focused on tribal operations, this leader­ship team may be set up at the leader and facility manager level
* If the planning effort seeks to include community-wide activities and projects, the leadership team may be set up as a broader Energy Planning Task Force, Sustainability Advisory Board, or Energy Advisory Board.

If possible, including a few active tribal advocates may lend transparency to the process, encour­age buy-in, and expand the realm of ideas incorporated into the plan. This is an opportunity to form teams that build bridges across Tribes and beyond to accomplish community-wide energy goals. The visibility of this team is also very important, as they will be the public face of the process and will be charged with developing pride in the process and the outcome.

***Tip:*** *As you engage stakeholders and get to know the players in the community and the Tribe, you may find “hidden stars,” or individuals who have, on their own, been quietly taking action to drive efficiency or renewable energy projects in their sphere. Take advantage of the passion you find and recruit them to serve on your committees!*

Once leadership has made a visible commitment, other communities are more likely to feel empowered to actively participate in the planning process and to develop practical implementation measures that lead to diesel oil reduction and energy savings.

***Tip:*** *The members of the leadership team should be prepared to have an “elevator speech” ready at all times. They will be called upon to talk to countless community members about the plan and its value, so having a consistent message is important to a successful process.*

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| **Handbook Activity-Step 2: Form Leadership Team**  Identify those who will be tasked with making decisions, directing the funding resources, and promoting planning and energy project development in the long term | | | |
| **Role and Strategic Purpose** | **Name** | **Organization** | **Contact Information** |
| Champion: Elected leader(s) that support the planning process |  |  |  |
| Plan Advocate: Coordinator that manages the planning process and activities |  |  |  |
| Leadership Team Member |  |  |  |
| Leadership Team Member |  |  |  |
| Leadership Team Member |  |  |  |

STEP 3: Develop a Common Energy Vision

A primary purpose of the planning process is to clearly articulate the community’s long-term vision and goals with regard to its energy future and to lay out the means with which the community will achieve those aspirations. Having a clear vision of what you hope to accomplish keeps subsequent discussion focused on the issues that matter most to your community. Developing a common vision with input from key community members and across the stakeholder group helps assure that the broader community agrees with and will support the actions that follow.

Step 3 is important because:

A well-articulated energy vision provides the motivation for action and the focus for choices encountered throughout the process.

The energy vision illustrates what your community’s energy landscape will look like if your strategic plan is 100% successful. Energy planning can lead to a host of diverse benefits for communities. Identifying the top priorities for the Tribe help develop a unified vision, as well as nar­row the types of energy activities and projects that will fit the community’s needs. Some examples of common energy-related priorities are to:

* Assure affordable and reliable energy
* Reduce infrastructure redevelopment and maintenance costs
* Strengthen economic development
* Build workforce and job skills
* Minimize environmental impacts
* Diversify energy supply
* Use local resources
* Save tribal members’ money
* Support community engagement.

Establishing a stakeholder consensus on tribal community energy priorities allows the planning process to move forward with the development of an energy vision statement. Well-designed vision statements include a short, broad sentence or set of sentences that can guide an overall process but not get caught up in details. The vision statement should be outcome-focused and express not only quantitative measures but anything that articulates the desired state of the community’s energy structure and use or the potential outcomes from energy performance improvement. It will be most effective if it is general enough for all members of the community to rally around, but also specific enough to guide concrete goals and subsequent activities. Here are some examples of vision statements:

“To provide electric, natural gas, water, wastewater treatment and related services at competitive prices, while contributing to the economy of the Navajo Nation, consistent with the improvement of the health and wealth of the residents of the Navajo Nation, and the employment of the Navajo people.”

[*Navajo Tribal Utility Authority*](http://www.ntua.com/)

"To provide affordable and environmentally safe energy for local residents and businesses for the purpose of economic self-sufficiency."

*Hopi - Hopit* *Potskwaniat*

"The purpose for which the Utility is organized is to provide an entity through which the Tribe may exercise all natural gas utility, electrical utility, other energy utility, water and sewer utility, telecommunications utility, and mineral use and development functions for the benefit of the Tribe, and to regulate all such utility matters of third parties on the Reservation."

*Cow Creek Band of Umpqua Tribe of Indians, Tribal Legal Code, Title 300*

"The Fort Mojave Tribal Council hereby finds and declares that the creation of AMPS is necessary and desirable in order to promote the development of the Tribe's resources, to promote the prudent economic vitality of the Reservation and surrounding communities, to protect the health and welfare of tribal members, and to provide employment and training opportunities for tribal members."

*Aha Macav Power System (AMPS), the tribal utility for the Fort Mojave Indian Tribe*

Discovering shared priorities among tribal members and leaders is important to accomplish. This information, which can be gathered during your stakeholder meetings, will provide a starting point for the visioning process and can help communicate a common message about where the community stands on energy planning issues. Be sure to circulate drafts of the vision statement among key stakeholder representatives to solicit their feedback before finalizing. The leadership team should be prepared to make the vision statement a highly visible public statement in order to drive the success of the planning project.

|  |  |
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| **Handbook Activity-Step 3: Define Energy Priorities & Develop Energy Vision**  Provide energy priorities and define the energy vision | |
| *Energy Priority* |  |
| *Energy Priority* |  |
| *Energy Priority* |  |
| *Energy Vision Statement:* | |

STEP 4: Assess Energy Needs and Resources

An effective strategic plan needs to build upon what has already been accomplished in the community before establishing goals and actions for the future. In addition, your energy plan will be carried out in the context of your state, regional, and utility regulations, policies, and programs. Therefore, a clear assessment of the energy environment is vital to the success of your plan.

The most useful energy environment assessment will have several important parts:

* A review of the community’s current energy use baseline and forecasted energy use, including:
  + Current and forecasted energy usage in government, residential, commercial, and industrial buildings
  + Current and forecasted energy usage for government operations, including water and wastewater treatment, heating fuel transportation, and waste collection and disposal
  + Current and forecasted energy use for private and public transportation, as well as government vehicle fleet
  + Current energy programs, including government, utility, non-profit, and other
* An understanding of strengths, weaknesses, opportunities, and threats (SWOT analysis) to the local energy environment
* Inventory of the external energy landscape, including state, regional, and utility policies, programs, projects, and plans
* List of current energy systems and energy resources used and understanding of the existing energy market.

STEP 4.1 Develop a Current Energy Baseline

Include all relevant sectors and identify the largest energy users and potential program and policy targets as a starting point for analysis. This baseline is critical because it helps design cost/benefit rankings for potential actions and programs. Without it, there is no way to determine which proposed actions are the most cost-effective for a specific com­munity. The level of detail can range from an overview provided in a utility annual report, to a more-detailed sector or subsector review, depending on the availabil­ity of information and budget to collect the informa­tion. The more detailed the baseline, the more detailed the plan design and impact information will be. It is important that, during this process, the methodol­ogy for measuring the baseline is clearly defined so that future measurements can verify the effectiveness of policy implementation.

Step 4 is important because:

A community energy baseline is the starting point for all analysis and planning. Understanding your utility, state, and regional context provides information on resources available to you.

Establishing an inventory of these activities is important. The projects and activities currently underway that both save energy and money throughout the community provide a terrific starting point for implementing new and expanded efficiency, conservation, and renewable energy activities in the future. Be sure to gather this information broadly as there may be little-known individuals or groups who are quietly moving energy efficiency or renewable energy forward in interesting ways; you will want to tap into their knowledge and enthusiasm.

The following worksheet is an effective first step in documenting a community’s baseline. This worksheet is provided by the Denali Commission and is very useful in targeting the specific energy uses across the community.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Handbook Activity-Step 4.1: Develop a Current Energy Baseline**  Use the following chart to establish and document an accurate and up-to-date snapshot of the community’s baseline energy use and opportunities | | | | |
| **Existing Community Facility Energy Usage** | | | | |
| **Facility Type** | **Electric usage (annual, kW/hr)** | **Heating fuel usage (annual, gallons)** | **Other heating sources** | **Date of last major facility renovation** |
| Tribal Administration Office(s) |  |  |  |  |
| Tribal |  |  |  |  |
| Health Clinic |  |  |  |  |
| City Office |  |  |  |  |
| Community Shop |  |  |  |  |
| School Building |  |  |  |  |
| School Building |  |  |  |  |
| School Building |  |  |  |  |
| Other Community Building |  |  |  |  |
| Other Community Building |  |  |  |  |
| Other Community Building |  |  |  |  |
| Other Community Building |  |  |  |  |
| **Renewable Energy Sources** | | | | |
|  | **Readily available resource? (Y/N)** | **Feasibility/resource assessment/study completed? (Y/N)** | **Potential project identified? (Y/N)** | **Past projects complete? (Y/N)** |
| Wind |  |  |  |  |
| Solar |  |  |  |  |
| Biomass |  |  |  |  |
| Wind Turbines |  |  |  |  |
| Hydrokinetic |  |  |  |  |
| Ground-source, Air-source Heat Pumps |  |  |  |  |
| Other (describe) |  |  |  |  |

In addition to this activity, you may find the following resources helpful as you develop your com­munity energy baseline:

* DOE Office of Energy Efficiency and Renewable Energy Project Development Tool <http://apps1.eere.energy.gov/office_eere/project_development/>
* U.S. Environmental Protection Agency (EPA) ENERGY STAR® Portfolio Manager
  + ENERGY STAR Portfolio Manager Overview [http://www.energystar.gov/index.cfm?c=evaluate\_performance.bus\_  
    portfoliomanager](http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager)
  + ENERGY STAR Portfolio Manager Benchmarking Starter Kit [http://www.energystar.gov/index.cfm?c=evaluate\_performance.bus\_  
    portfoliomanager\_benchmarking](http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager_benchmarking).

STEP 4.2 Consider Community Strengths, Weakness, Opportunities, and Threats

This classic assessment can prove to be an effective tool for diagnosing current challenges and sketching out future directions. Ask your stakeholders to assist in identifying the following items, which will then help inform how you set goals (Step 5) and identify action items (Step 6).

* **Strengths:** What qualities, resources, and characteristics exist that can be applied to the strategic energy plan? This can include tangible resources such as funding or more abstract things such as leadership or community mindset. You will also want to assess the kinds of specialized expertise that exists in your community. This can include individuals, elected officials, businesses, or organizations with skills to apply to the effort.

*Example: Tribal staff has great experience with building retrofits and weatherization.*

* **Weaknesses:** What obstacles, constraints, or disincentives exist within the community that might limit adoption of strategic energy initiatives? Be sure to identify all weaknesses, not only the obvious.

*Example: Tribal member attitudes toward early upfront costs of plan implementation.*

* **Opportunities:** What are the trends, conditions, or events that your community could capitalize on?

*Example: Many natural resources available in the area.*

* **Threats:** Are there external challenges that could impede the implementation of effective energy strategies? This might include the state and utility policy and program framework, or threats outside of your control, such as economic downturn.

*Example:**Power cost equalization is currently suspended.*

|  |  |
| --- | --- |
| **Handbook Activity-Step 4.2: Community Strengths, Weaknesses, Opportunities, and Threats**  Using these categories, document feedback developed through discussions with stakeholders and leadership team | |
| Strengths (Internal)  *Ex: Informed energy staff with experience building retrofits* | Weaknesses (Internal)  *Ex: Turnover in staff has presented challenges for the Tribe* |
| Opportunities (External)  *Ex:* *Many natural resources available in the area* | Threats (External)  *Ex: Power cost equalization is currently suspended* |

STEP 5: Develop Specific Energy Goals

Now that you have a clear understanding of where you are, what you want to accomplish, and the resources you have in hand, it is time to establish the energy goals that you want to achieve. Energy efficiency and renewable energy can meet multiple goals, so there is no reason to limit your Tribe to only one goal. However, establishing primary goals will help determine the best projects to meet those goals later on. It is crucial that stakeholders define the scope of their strategic energy plan in this step. For example, some Tribes choose to focus on addressing energy issues related to tribal operations first, later expanding the plan to incorporate community-wide goals. Ensuring that all of the stakeholders understand the goals is crucial at this stage of the process.

Step 5 is important because:

Specific and actionable goals provide the framework for choosing among alternatives and designing actions.

Increasingly, tribal communities are setting specific goals related to energy savings, sustainability, and reduction in the use of diesel fuel. Articulating and promoting such high-level goals sends a strong policy message to community members and stakeholders and provides an important focus for a variety of energy projects planning and implementation activities. Similar goals have been set in other communities and can vary widely. For example:

Make all City of Austin facilities, fleets, and operations totally carbon neutral by 2020.

*City Council of Austin, Texas*

Reduce total, current, community-wide fossil fuel consumption by 50% by 2030.

*Climate and Energy Action Plan, City of Eugene, Oregon*

80% reduction in greenhouse gas emissions … by 2050, using baseline data from 2005.

*Climate Action Plan, City of Lawrence, Kansas*

The goal is to ultimately eliminate the Tribe’s carbon footprint, be energy self-sufficient, and to be a provider of carbon-free energy to others.

*Project Greenfire Goals, Forest County Potawatomi Community, Wisconsin*

Some communities prefer to set very aggressive long-term goals and often struggle to achieve them over a relatively long period of time. Others choose symbolic goals, recognizing that they are stretch goals and not readily achievable with present day knowledge and technology. They reason that big, aspirational goals can often act as drivers and return unexpectedly big results. Other communities prefer to set more immediate goals that they are confident can be achieved.

Once a stakeholder process is underway, the larger goals can be broken down into more community-driven specifics. For example, how much of that goal will be met with energy efficiency, and how much from renewable energy? How much will come from tribal operations, and how much will be promoted in the private sector? Answering these questions provides more insight into community wants and needs and increases the effectiveness of the overall program.

Goals that address more detailed actions will be more effective if they are specific, measurable, actionable, realistic, and time-bound (also called SMART goals):

* **Specific**―Be sure goals are clear and have enough detail to adequately focus on the objective. When goals are specific, they tell audiences exactly what is expected, why it is important, who is involved, where it is going to happen, and which attributes are important.
* **Measureable**―Be sure that there is a way to assess that the outcome shows a change in the number of units or a relative change in baseline conditions. If goals are not measurable, you never know whether you are making progress toward their successful completion.
* **Actionable**―Goals should be realistic and attainable by the community. The best goals require the team to stretch a bit to achieve them but are not extreme. The goals are neither out of reach nor below standard performance.
* **Realistic**―The goal should be clearly achievable within the timeframe, with the personnel, and with other resources available.
* **Time-bound**―Be sure to set a clear time frame for goal completion, or outline a sequential order among milestones.

This process can take months and a good amount of stakeholder effort, or it can happen at a planning meet­ing over a few days with a good facilitator. An energy champion is a great asset for moving the process along and making sure all voices are heard. At this point, the funding that will be required to support the goals is not a critical part of the brainstorming (although stakeholders are always welcome to suggest ideas for funding programs). Instead, ideas should be free flowing to maximize creativity and applicability to the specific community vision. Be sure also to establish priorities among goals in case constraints arise in the future.

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| **Handbook Activity-Step 5: Develop Specific Energy Goals**  Document the goals developed by the leadership team and community stakeholders. As these are developed and documented, consider:   * Is the goal specific and focused? * Is the current energy baseline used to set the goal? * Can progress toward the goal be measured? * Is the goal realistic? * Does the goal have a timeline or order? | | |
| Community Energy Goal |  |
| Community Energy Goal |  |
| Community Energy Goal |  |

STEP 6: Prioritize Energy Projects and Programs

This evaluation typically determines which strategies will achieve the greatest results with the least amount of effort (or money). Why it’s critical: every Tribe is resource-limited. By pursuing the strategies with the highest impact first; your community can build a record of success that should free up additional support for these efforts in the future.

Using the baseline and the program and project ideas, develop a ranking system to understand cost-effective­ness of different projects. This part of the process requires a strong leader to ensure that:

* All the information for the proposed projects is available from the proposing entities;
* The same methodology is used to evaluate each project; and
* Draft results are reviewed by the project proposers to ensure that all the correct project aspects are considered.

There are many methods for evaluating cost-effective­ness. The one that is most appropriate depends largely on program goals. The total resource cost test is most commonly used because it considers a wide range of life-cycle benefits for policy and programs. It is considered a best practice by the National Action Plan for Energy Efficiency. A methodology for how it was applied in California can be found here: <http://www.apscservices.info/EEInfo/CA_Stndrd_Prac_Man.pdf>.

Another valuable method in determining which projects to prioritize is to understand the levelized cost of energy (LCOE) of a project. NREL’s LCOE calculator provides data for both utility-scale and distributed generation renewable energy technologies while comparing capital costs, operations and maintenance, performance, and fuel costs: <http://www.nrel.gov/analysis/tech_lcoe.html>.

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| **Handbook Activity-Step 6: Prioritize Projects and Programs**  Develop a ranking system to understand cost-effective­ness of different projects using NREL’s LCOE Calculator. <http://www.nrel.gov/analysis/tech_lcoe.html> | | | | | |
| **Potential Project** | **Project Description** | **Cost and LCOE Estimate** | **Priority Level** | **Project Timeline** | **Relationship to Community Energy Goals** |
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STEP 7: Identify Funding and Financing Options

Various options are available to fund and finance energy projects. In addition to federal, state, and non-profit grants, private investment opportunities are viable as well. Many of these are listed below. The DOE Office of Indian Energy offers free on-demand webinars to help Tribes capture the potential of private project financing opportunities for projects. View available webinars on the National Training & Education Resource Center website at [www.nterlearning.org](http://www.nterlearning.org) (search for “Indian Energy”).

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| **Organization:** Department of Energy, Office of Energy Efficiency and Renewable Energy Tribal Energy Program  **Grant Opportunity:** Various grants available for energy efficiency and renewable energy projects  **Grant Web Page**: [http://apps1.eere.energy.gov/tribalenergy/ financial\_opportunities.cfm](http://apps1.eere.energy.gov/tribalenergy/financial_opportunities.cfm) | **Eligible Projects:** Biomass, Energy Efficiency, Geothermal, Hydropower, Solar Photovoltaics, Solar Water Heat, Wind and other Renewable Energy Projects |
| **Organization**: U.S. Department of Agriculture (USDA) Rural Development Rural Utilities Service  **Grant Opportunity:** Rural Utilities Service (RUS) Assistance to High Energy Cost Rural Communities Program  **Grant Web Page:** <http://www.rurdev.usda.gov/UEP_Our_Grant_Programs.html> | **Eligible Projects:** Funds may be used to acquire, construct, extend, upgrade or otherwise improve energy generation, transmission or distribution facilities and to establish fuel transport systems that are less expensive than road and rail. |
| **Organization:** USDA Rural Development - Rural Energy for America Program (REAP)  **Grant Opportunity:** The Renewable Energy System and Energy Efficiency Improvement Guaranteed Loan and Grant Program  **Grant Web Page:**  <http://www.rurdev.usda.gov/BCP_ReapResEei.html> | **Eligible Projects:** Grant assistance to rural small businesses in rural America to purchase, install, and construct renewable energy systems; make energy efficiency improvements to non-residential buildings and facilities; use renewable technologies that reduce energy consumption; and participate in energy audits, renewable energy development assistance, and feasibility studies. |
| **Organization:** USDA Rural Development  **Grant Opportunity:** Community Facility Grants  **Grant Web Page:** <http://www.rurdev.usda.gov/HAD-CF_Grants.html> | **Eligible Projects:** Grant funds may be used to assist in the development of essential community facilities. Grant funds can be used to construct, enlarge, or improve community facilities for health care, public safety, and community and public services. This can include the purchase of equipment required for a facility's operation. A grant may be made in combination with other CF financial assistance such as a direct or guaranteed loan, applicant contributions, or loans and grants from other sources. |
| **Organization:** U.S. Department of Commerce Economic Development Administration  **Grant Opportunity:** FY 2013 Economic Development Assistance Programs  **Grant Web Page:**  <http://www.grants.gov/view-opportunity.html?oppId=208353> | **Eligible Projects:**  Under this Federal Funding Opportunity, EDA solicits applications from both rural and urban areas to provide investments that support construction, non-construction, technical assistance, and revolving loan fund projects under EDA’s Public Works and Economic Adjustment Assistance programs. Grants made under these programs are designed to leverage existing regional assets to support the implementation of economic development strategies that advance new ideas and creative approaches to advance economic prosperity in distressed communities. |
| **Organization:** U.S. Department of Transportation Federal Transit Administration  **Grant Opportunity:** Clean Fuels Grant Program  **Grant Web Page:**  <http://www.fta.dot.gov/grants/13094_3560.html> | **Eligible Projects:** Projects such as the following would be eligible for funding; (1) Purchasing or leasing clean fuel buses, including buses that employ a lightweight composite primary structure and vans for use in revenue service. (2) Constructing or leasing clean fuel bus facilities or electrical recharging facilities and related equipment. (3) Projects relating to clean fuel, biodiesel, hybrid electric, or zero emissions technology buses that exhibit equivalent or superior emissions reductions to existing clean fuel or hybrid electric technologies. |
| **Organization: The Bullit Foundation**  **Web Page:**  <http://bullitt.org/>  **Eligible Entities:**  501 (c)(3) nonprofit organizations | The mission of The Bullitt Foundation is to safeguard the natural environment by promoting responsible human activities and sustainable communities in the Pacific Northwest. The Foundation invites inquiries from nonprofit organizations that serve Washington, Oregon, Idaho, British Columbia, western Montana (including the Rocky Mountain range), and south-central Alaska. |
| **Organization: The Joyce Foundation**  **Web Page:**  [http://www.joycefdn.org/apply/guidelines/ #sthash.vu4GBRsY.dpuf](http://www.joycefdn.org/apply/guidelines/#sthash.vu4GBRsY.dpuf)  **Eligible entities:**  501 (c)(3) nonprofit organizations in the Great Lakes region | The Joyce Foundation will seek and support funding opportunities to put the Midwest on a path to adopt all energy efficiency measures that are cheaper than generating more power by 2020. Proposals will be considered for work at the local, state, regional and, on a very limited basis, national levels that address leveraging state policies including energy efficiency resource standards, smart grid deployment plans, and decoupling measures and identifying, testing, and replicating the most effective building energy efficiency delivery models, whether those are focused at the community level, on a particular type of building, or a group of energy consumers with shared characteristics. |
| **Organization: The John Merck Fund – Clean Energy Fund**  **Web Page:**  <http://www.jmfund.org/grant.php>  **Eligible entities:**  501 (c)(3) nonprofit organizations in the New England area | The goal of the Clean Energy Program is to improve the six-state region’s air quality, build a clean energy economy, and reduce its greenhouse gas emissions by 20 percent within 10 years. |
| **Organization: The Surdna Foundation**  **Web Page:**  <http://www.surdna.org/what-we-fund/funding-overview.html>  **Eligible Entities:**  501 (c)(3) nonprofit organizations | The Surdna Foundation seeks to foster sustainable communities in the United States - communities guided by principles of social justice and distinguished by healthy environments, strong local economies and thriving cultures. We seek to dismantle the structural barriers that limit opportunity for many, helping to create communities that are prosperous, culturally enriching, and sustainable. |
| **Organization: The William and Flora Hewlett Foundation**  **Web Page:**  <http://www.hewlett.org/programs/environment-program>  **Eligible entities:**  501 (c)(3) nonprofit organizations | To meet the world’s energy needs, Foundation grantees work to support the production of energy from renewable sources like solar, wind, and geothermal; increase energy efficiency; and adopt and implement clean transportation policies that include fuel economy standards, mass transit, and bike lanes. |

STEP 8: Compile the Energy Plan

The strategic energy plan is a document that summarizes all the data, information, vision, goals and priorities identified during the energy planning process. This is a public document for the community and becomes most effective after it has been formally adopted and approved by the Tribal Council. The prioritized energy projects listed within the plan serve as a pathway for implementation and provide tribal leadership with energy development recommendations. The strategic energy plan may stand alone as its own guiding community document, or the energy plan can be embedded into updates of existing community plans such as a community comprehensive plan, master plan, or economic development plan.

The following elements are critical to include in a strategic energy plan:

* Tribal energy objectives and energy vision
* Specific energy goals
* Snapshot of current energy baseline (usage, cost, supply, generation)
* Community energy SWOT
* A prioritized list of programs and projects (addressing energy goals, community opportunities, technology and scale, and strategies for implementation)
  + Demand side (e.g., energy efficiency retrofits for facility “x,” weatherization upgrades to “y” set of residences)
  + Generation (e.g., development of photovoltaic system for tribal facilities, wind power project for community- wide energy benefit)
* Identified funding and financing mechanisms for prioritized projects
* Recommendations and strategies for energy project implementation.

By taking the time to document these elements in the strategic energy plan, lasting value is created. Benefits include:

* Document near-term goals and actions
* Sustain momentum created during the tribal planning process
* Establish a roadmap for achieving long-term energy goals
* Enable the community to mobilize the long-term support necessary for energy project development that extends beyond changing tribal leadership due to elections
* Provide the means to consistently share the story with others
* Create resources to help guide and filter priorities, providers, and decisions.

STEP 9: Measurement and Verification and Plan Alterations

Once adopted, the strategic energy plan is ideally treated as a “living” document. It is important to:

* Establish how often the plan will be updated (e.g., every 1, 2, 3, or 5 years)
* Update the plan when:
  + - Energy projects listed in the original strategic energy plan are completed
    - The community’s population grows or shrinks
    - Overall energy demand and supply shifts
* Refer to the plan when selecting an energy project or program and measuring success
* Use the plan to reflect and verify that projects are moving the Tribe closer to its stated vision and goals.

Sustained energy planning fosters community interest and understanding of the energy landscape, identifying where a community is in that landscape, and more importantly, setting goals and prioritizing projects that move the Tribe toward its sustainable energy destination.

Additional Resources

* DOE Office of Indian Energy online educational course on Strategic Energy Planning: [www.nterlearning.org](http://www.nterlearning.org) (search “Indian Energy”)
* Apply for up to 40 hours of free technical assistance from DOE to help with strategic energy planning at [www.energy.gov/indianenergy/technical-assistance](http://www.energy.gov/indianenergy/technical-assistance)
* DOE Office of Indian Energy case study on Developing Tribal Energy Projects: Community Energy Planning: <http://www.nrel.gov/docs/fy13osti/56272.pdf>
* DOE Office of Indian Energy Resource Library: [www.energy.gov/indianenergy/resources/energy-resource-library/strategic-energy-planning](http://www.energy.gov/indianenergy/resources/energy-resource-library/strategic-energy-planning).