

THE IMPORTANCE OF LONG-TERM PLANNING

For some electric utilities, long-term strategic energy planning (a three-to five-year plan) is an integral part of their businesses. For others, it is on the “back burner.” And for still others, it is something that has never been done.

What is a strategic energy plan? “A strategic energy plan is a roadmap to achieving community energy goals in both the near and long term. The goals are determined by stakeholder input, so the plans are inherently local and have stakeholder buy-in, leading to a greater likelihood of success of the plan over time,” (National Renewable Energy Laboratory).

Long-Term Energy Plans - The Benefits

What are the overall benefits for utilities to having such a plan in place? There are several. Such a plan:

1. Outlines the “what, why, where, and when” of needed improvements/ upgrades.
2. Is able to pinpoint system changes and plan in advance for what needs to happen.
3. Can often lead to economic development opportunities and benefits.
4. Helps the utility prepare for future funding opportunities, both internally, as well as outside grant and/or loan funding opportunities.
5. Can increase buy-in to projects by utility boards and utility leaderships.

7. Can position the leadership for better budgeting.
8. Can facilitate consistent system improvements year after year.
9. Can allow for proper timeline spacing between projects and costs, so as not to have to spend too much at once.

How Common Are Long-Term Plans?

It is difficult to provide exact numbers, but approximately 80 percent or more of electric co-ops have long-term energy plans in place. Approximately 30 percent or fewer municipal utilities have such plans in place, and those that do, tend to be the larger ones.

Topics to Cover in a Long-Term Plan

There are several topics that should at least be considered when formulating a long-term energy plan. Among these are:

1. Power supply challenges (renewables vs. traditional).
2. Load forecasting.
3. Aging infrastructure challenges.
4. System reliability and protection.
5. Power requirements into the future.
6. Power supplier options.
7. System automation and Smart Grid.
8. Regional Transmission Organization (RTO) direction.
9. Current and future staffing challenges.
10. Distributed generation options.
11. AMI.

Which is Better - A Three-Year or a Five-Year Plan?

As Finley sees it, the actual time frame isn't really that important. The important thing is laying out the needs over a given period of time, whatever that timeframe may be so you can prepare. In other words, it should be on a case by case basis. It really depends on what improvements are needed over specific time frames and what known upcoming changes are expected: 1) in that region/community 2) in the regulatory environment 3) in that industry.

Who Should Be Involved in Creating Such Plans?

This will vary from utility to utility depending on if it is a co-op or municipal utility, and the size of the utility. In general, the key people you should consider involving are the: CEO, general manager, city manager, engineering staff, operations staff, and utility board members.

The Most Important Keys to Success

To be successful, there are a few points to consider:

1. Understanding the strengths, weaknesses, opportunities, and threats of the utility.
2. Focusing on problem areas within the system as well as areas for growth.
3. Making sure you are addressing the needs of customers.
4. Having all parties, including the governing body, sign off on the plan.

Updating Long-Term Plans

How often should long-term strategic plans be reviewed and updated? The plan should be examined annually, and the utility should start preparing a new plan 12 to 18 months prior to the end of the existing plan.

In addition, any time there is a project change requiring an amendment to the plan, the plan should be reviewed as yearly budgets are calculated. That is, the plan should provide guidance for each annual budget cycle going forward.

The work that needs to be done during each of these reviews and updates to make sure that the plan stays updated, relevant and on track may include things such as:

- System map updates
- System analysis
- Load forecasting

What Role Can Finley Play in Long-Term Planning for Utilities?

Finley has the staff in place to consult utilities in conducting engineering studies which are of critical importance in long-term planning. Finley can also discuss what system improvements the utility would like to see. In addition, Finley can help the utility in every step of creating the plan from start to finish.

Finley can also help its clients keep these plans updated on a regular basis. This involves ongoing interaction between the utility contacts and Finley staff before, during, and after the plan. It also involves discussing which projects will play a key role in helping the utility be successful. Finley can also help clients with quarterly check-ins to see how the projects are progressing, and update/amend these as needed.

Sidebar 1- What Does a Strategic Energy Plan Process Look Like?

According to the NREL report mentioned at the beginning of this white paper, “Strategic energy plans can be brief documents used to inform decisions in city and utility planning, or they can be detailed guidebooks with goals, implementation plans, measurement, verification procedures, and reporting requirements.

According to the NREL report, a strategic energy plan should have nine steps:

Step 1: Identify and convene stakeholders.

Step 2: Establish a leadership team.

Step 3: Develop a common energy vision.

Step 4: Develop a community energy baseline.

Step 5: Develop energy goals based on the vision and baseline.

Step 6: Identify and evaluate supply-and-demand policy, and program resource options, matching these to the goals and ranking overall program options.

Step 7: Find and secure funding sources.

Step 8: Compile the plan. This includes objectives, goals, baseline, program options and surrounding analysis, and recommended options for policy makers.

Step 9: Measure, evaluate, and update the plan.

- Is there a current plan for evaluation of programs?
- How high is the demand for that as a formal document or announcement?
- How will the results be communicated back to the individual program implementers?

Sidebar 2- Long-Term Planning for Broadband

Finley has extensive experience through its broadband division, using strategic planning services for its clients that were planning on utilizing federal or state grant/loan funds.

In 2014, Finley began providing grant application preparation services in Minnesota, as well as the network design information needed for those applications. It always experienced very tight timeframes in completing high-level designs and budgets along with “leading the charge” on their applications.

Over several years Finley assisted clients with numerous federal and state funding programs in many different states. Many clients began including Finley in their strategic planning processes so that they would be better prepared for those upcoming federal and state funding programs. Some clients even utilized Finley’s services and expertise for high-level designs and budgets for all of their unserved or underserved areas, as well as areas that they thought they might want to serve outside of their traditional serving areas.

This prepared clients for when future funding opportunities became available. When that happened, Finley only had to update pricing, since the designs and maps were already completed. This began to happen with more and more of Finley’s clients as more funding programs became available.

In Finley’s experience, success for electric and broadband long-term strategic plans and funding programs mostly depends on how well providers know their future plans when considering funding options.

About Finley Engineering

Finley Engineering is a full-service engineering consultancy with a successful history of providing expertise in communications technology and energy engineering services for a wide variety of clients such as independent telecom providers, electric cooperatives, municipalities, competitive providers and government entities.