Smart Management for Small Water Systems

Progress Tracking and Reporting

EFCN environmental finance center network

American Water Works Association

UNC ENVIRONMENTAL FINANCE CENTER

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Energy Management Program - Basic Steps

- Step 1. Establish Organizational Commitment
- Step 2. Develop a Baseline of Energy Use
- Step 3. Evaluate the System and Collect Data
- Step 4. Identify Energy Efficiency Opportunities
- Step 5. Prioritize Opportunities for Implementation
- Step 6. Develop an Implementation Plan
- Step 7. Provide for Progress Tracking and Reporting

Source: NYSERDA

Progress Tracking and Reporting

What Do You Track?

- For your energy management projects, what sorts of things do you already track?
- If you've not done energy management yet, what kinds of measurements of progress would you like to track and why?
- For non-energy projects, what sorts of metrics do you track?

Why Track Your Progress?

- Ideally, whatever objective you chose to implement should be one whose tasks:
  - Can be completed in their entirety and within your predetermined timeframe
  - Can be completed with no negative impact on daily operations or treatment performance, and with minimal negative impact on staff activity
- Tracking the progress of these tasks as the objective is being completed can be the difference between project success and failure

What to Track:

- Task completion
- Actual costs versus projected costs
- Actual savings versus projected savings
- Outcomes

A Matrix Format for Decision-Making

Energy Project Decision Matrix									
Proposed Energy Efficiency Project	Energy Cost Savings (1 to 5)	Cost of Implementation (1 to 5)	Payback Period (1 to 5)	Necessary to Meet Regulatory Requirements (1 to 5)	Necessary to Meet Level of Service Goals (1 to 5)	Availability of Advantageous Funding (1 to 5)	Operational Feasibility (1 to 5)	Part of a Larger Project (1 to 5)	Total Score

What to Track:

- Consider your project prioritization process
- You can track progress toward what you prioritized:
  - Cost savings / Energy savings
  - Progress towards regulatory compliance goals
  - Progress towards level of service goals
  - Implementation cost
  - Time elapsed
  - Progress towards a larger project

What's Important to Your Funder?

- This is a key question as to what you might track in your progress tracking.
- Does your funder care about GHG's? Energy savings? Labor used (e.g. Davis-Bacon reporting under ARRA)? Other factors?
- Also, what is important to your Board?

NYSERDA's Keys to Success

- Performance metrics need to be focused so that only those benefits that can be directly attributed to a project are measured.
- Reporting should generate some follow-up activities to demonstrate a commitment to the project.

The Virtuous Cycle of Energy Management

Question:

- How can we make the deliverables that we track appropriate for good, easy, effective measurement and reporting?

Be S.M.A.R.T. About Deliverables

S = Specific

Is it clear and focused to avoid misinterpretation?

Be S.M.A.R.T. About Deliverables

M = Measurable

Can it be quantified and compared to other data?

Be S.M.A.R.T. About Deliverables

A = Attainable

Is it achievable and reasonable under normal conditions?

Be S.M.A.R.T. About Deliverables

R = Realistic

Is it cost-effective and can it be done by the facility?

Be S.M.A.R.T. About Deliverables

T = Timely

Is it doable within your given timeframe?

Let's Play: Good or Not Good
~ The Deliverables Edition ~

"I want our plant to be better than the plant in the next town."

GOOD

NOT GOOD

Let's Play: Good or Not Good
~ The Deliverables Edition ~

"We will decrease energy consumption by 50% within the next 5 years."

GOOD

NOT GOOD

Let's Play: Good or Not Good
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"We will be the most energy efficient treatment plant in the state."

GOOD

NOT GOOD

Let's Play: Good or Not Good
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"I want to install VFDs on all of our pumps, one every quarter."

GOOD

NOT GOOD

Let's Play: Good or Not Good
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"My subordinate will monitor and log energy usage 24 hours a day, 7 days a week."

GOOD

NOT GOOD

Another Reason to Track:

- Another reason why to track your progress is: Are your projects delivering the cost savings, energy savings, or other goals that you set out?
- For example, if a piece of equipment or a process are not being run correctly, performance may be poorer than planned.
- Track progress frequently enough to catch these kinds of things.

Thank You!

And please let us know if you have any questions.

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