Selecting an Energy Consultant For Your "Energy Diet"

Small and Large Facilities Have Different Priorities!

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ABSTRACT

How do you select the best energy consultant to identify conservation opportunities that don't require equipment upgrades? A survey was done to identify the key success factors in such contracts, and the results indicate that small and large facilities have different priorities, some of which are overwhelmingly dominant. This survey was done in school districts, but the results have meaning and application for many facility managers who manage multiple locations. To aid facility managers in applying this information, some questions are presented to assist them in the consultant-selection process.

INTRODUCTION

Every year, thousands of energy management projects/programs are developed that yield great savings and returns on investments. Unfortunately, some ideas get stalled or postponed due to lack of funding. Thus, finding programs that pay for themselves (such that cash flow remains positive) has been a prerequisite for many buildings.

One solution approach is "behavior-based" energy conservation programs. This can occur when an energy consulting firm identifies—and possibly delivers—savings by improving operations and maintenance practices (as opposed to installing new equipment). Recent research suggests that there is significant energy savings potential (approximately 25%) in behavior-based approaches, yet the implementation of such programs requires different capabilities, as it can be difficult

to actually change human behavior, especially in the United States. Multiple research studies from 2007 to 2009 suggest that approximately 70% of US energy consumers say they want to save energy, yet less than 20% have actually reported taking action. A much smaller percentage has implemented a strictly behavior-based energy savings program. From the above data, a gap exists between what is achievable and what is often attempted (much like the human willpower displayed when someone says they want to go on a diet).

Thus, it is apparent that savings opportunities exist, yet the skills to implement behavior-based programs are different than "equipment-based" approaches. So, how do you select the best consulting firm for such a service? A survey was done to identify the key success factors, and the data provided some interesting results. This study was done in school districts, but the results have meaning and application for many facility managers who manage multiple locations.

SURVEY AND DATA COLLECTION

Sixteen school districts were interviewed to identify the key success factors for selecting a firm to provide an energy savings program. Note: this type of "program" (which involves improving maintenance, reducing operating hours, etc.) is different than an equipment-based energy saving "project." The program approach focuses mainly on ways to save energy without any investment in new equipment. The districts that were interviewed had already implemented this type of program across their facilities for more than 2 years (and some had programs lasting more than 10 years). These small and large schools had worked with different energy firms ("providers") to deliver energy conservation programs in different areas of the country.

At the beginning of each interview, the following question was asked of the district employee who oversaw the contract with the provider:

"If you were to give advice to another school district that is in the process of selecting an energy consultant to provide an energy savings program, what are the key factors for success?"

The following key success factors were mentioned by respondents:

- 1. Provider capabilities/track record with references
- 2. Provider's support/rraining/benchmarking
- 3. On-site energy manager's attitude/leadership
- 4. District's commitment to an energy saving program during the early phases of implementation
- 5. Communication of the program's goals and progress across district's facilities/people
- 6. Providers focus on creating a "self-sustaining" program where, eventually, the district does not need the provider.
- 7. Trust and relationships between district and provider
- 8. Provider flexibility during implementation

Figures 1 and 2 show the response frequencies across all respondents in small and large schools. In other words, "What percentage of respondents listed key success factors as [first and second] priorities?" Thus, in Figure 1, 43% of respondents identified "Provider Capabilities/Track Record with References" as the most important factor for a program.

Now for The Interesting Part...

When segregating the data by school size, we get a clearer picture. Figures 3 and 4 show the response frequencies across respondents from school districts with student populations greater than 20,000 (medium, large, and extra-large districts).

Figures 5 and 6 show responses from school districts with student populations less than 11,000 (small and very small districts).

SUMMARY OF DATA ANALYSIS

When stratifying the key success factors by facility size, dominant factors are identified. Figures 3 & 4 show that large districts are more aligned on their priorities of key success factors.

- 80% of large districts identified their first priority as: "Provider Capabilities/Track Record with References"
- 83% of large districts identified their second priority as "Support/ Training/Benchmarking"

First Priority

- Provider Capabilities / Track Record with References
- Provider Support/Training/Benchmarking
- Energy Manager Attitude/Leadership
- District Commitment to Program during early phases of contract
- Communication across District's Facilities/People
- Provider's focus on creating a "self-sustaining" program



Figure 1. All Facility Sizes

Second Priority

- Provider Capabilities / Track Record with References
- Provider Support/Training/Benchmarking
- Energy Manager Attitude/Leadership
- District Commitment to Program during early phases of contract
- Communication across District's Facilities/People
- Provider's focus on creating a "self-sustaining" program

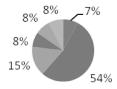


Figure 2. All Facility Sizes

First Priority

- Provider Capabilities / Track Record with References
- Provider Support/Training/Benchmarking
- Energy Manager Attitude/Leadership
- District Commitment to Program during early phases of contract
- Communication across District's Facilities/People
- Provider's focus on creating a "self-sustaining" program



Figure 3. Large Schools

Second Priority

- Provider Capabilities / Track Record with References
- Provider Support/Training/Benchmarking
- Energy Manager Attitude/Leadership
- District Commitment to Program during early phases of contract
- Communication across District's Facilities/People
- Provider's focus on creating a "self-sustaining" program



Figure 4. Large Schools

First Priority

- Provider Capabilities / Track Record with References
- Provider Support/Training/Benchmarking
- Energy Manager Attitude/Leadership
- District Commitment to Program during early phases of contract
- Communication across District's Facilities/People
- Provider's focus on creating a "self-sustaining" program



Figure 5. Small Schools

Second Priority

- Provider Capabilities / Track Record with References
- Provider Support/Training/Benchmarking
- Energy Manager Attitude/Leadership
- District Commitment to Program during early phases of contract
- Communication across District's Facilities/People
- Provider's focus on creating a "self-sustaining" program

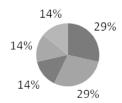


Figure 6. Small Schools

This means that *large school districts* (that have already implemented an energy savings program) feel that *the most important key success factor* is "having a provider with strong capabilities and a good track record." The second most important factor relates to the support, training, and benchmarking abilities of the provider.

In contrast, small districts were less aligned with respect to their priorities. Figures 5 & 6 show that the priorities identified are much more evenly distributed, with no dominant priorities. This could mean that small school districts are truly a different market and require different needs.

CONCLUSION

When selecting a provider for an energy conservation program, different-sized facilities have different priorities on the key success factors. For larger facilities, most respondents said it was important to evaluate the provider's **capabilities and references thoroughly** (i.e., make sure they have done what their sales proposal claims). In addition, respondents said that providers should have adequate experience in similar facilities (size/type) **so that they can benchmark your facility against others to evaluate performance** and make recommendations or adjustments as needed.

The conclusion seems to be "common sense"; however, it is interesting how dominant the priorities were in the larger facilities.

APPLICATIONS

Utilizing the results above can help facility managers write a good request for proposal (RFP), which is often one of the first procurement steps. Within an RFP (in addition to the standard terms and conditions) you may want to ask for:

- The provider's main business focus, as well as length of service in the specific scope of work requested.
- The provider's process of delivering the services and verifying the results.

- The provider's ability to measure and compare the performance of your facilities versus benchmarks.
- At least 7 references (with contact names/phone numbers) where the provider has delivered a similar scope of work/services in similar facilities/climates. Within these references, the provider should also state the net benefits provided.
- The net savings to your facilities (inclusive of all costs to be paid by your facility). *If there is a guaranteed savings figure, that should* be listed as well.

After you receive the proposals, the questions below may help you identify the best providers for your needs.

- How many references were provided? Are there multiple references from the same organization?
- How similar (or different) are the references when compared to your facility (size, location, function, etc.)?
- Does the provider have a personal relationship with any of the references? Is there a conflict of interest?

Some of the information below may have to be retrieved by contacting the provider's references and asking the following questions:

- How long ago did the reference work with the provider?
- Why did the reference hire the provider in the first place?
- Did the provider deliver on commitments?
- Is there a continuing relationship? Why or why not?
- Were there any surprises?
- Would the reference hire the provider again? Why or why not?

Hopefully, the criterion identified as well as the questions above will help facility managers (and consultants) achieve greater satisfaction and success with their energy conservation programs... and that is good for all of us!

Bibliography

- Ehrhardt-Martinez, K., Laitner, J., and Keating, K. (2009) "Pursuing Energy-Efficient Behavior in a Regulatory Environment: Motivating Policymakers, Program Administrators and Program Implementers," Prepared for the California Public Utilities Commission.
- Laitner, J., Ehrhardt-Martinez, K., and McKinney, V. (2009) "Examining the Scale of the Behavior Energy Efficiency Continuum" Proceedings of the 2009 ECEEE Summer Study. La Colle sur Loup, Cote d'Azur, France.
- Gardner, G. and Stern, P. (2008) "The Short List: The Most Effective Actions US Households can Take to Curb Climate Change" *Environment* Vol. 50(5).
- Woodroof, E. (2008), "Overcoming the Barriers to Energy and Green Projects," Strategic Planning for Energy and the Environment, Vol 27(3).
- US Department of Energy, FEMP and Program (2007) "Creating an Energy Awareness Program—A Handbook for Federal Managers."
- McMakin, A., Lundgren, R., Malone, E., and Pacific Northwest National Laboratory (2000), Revised Guidebook: Promoting Behavior-Based Energy Efficiency in Military Housing.
- Woodroof, E. (1998) "Facility and Project Characteristics that Favor Certain Financial Arrangements," Presented at the 1998 World Energy Engineering Congress, Atlanta, GA November 4-6, 1998.
- Stern, P. and Aronson, E. (1984) Energy Use: The Human Dimension, W.H. Freeman and Company Press, New York.

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