Local Government Associations as Agents of Change

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ABSTRACT

The Northwest Energy Efficiency Alliance (Alliance) has a project, the Local Government Association (LGA) Support Project, that utilizes the local government associations in each of the four Alliance states to act as infrastructure to help promote appropriate Alliance market transformation projects to their members, cities and counties.

The measurement studies conducted in 1999 and 2000 included interviews with board members and LGAs, and a mail survey of local governments. The mail survey examined current attitudes and actions by local governments towards energy efficiency policies for three levels of inward/outward focus for energy efficiency promotion. These three levels are: 1) public facilities, 2) zoning and planning policies, and 3) promotion to community.

The evaluation of this effort indicated that two of the three perspectives of project goals could include harnessing the LGAs as agents of change, developing local government officials into agents of change within the government and for their communities. The paper provides information on the role of energy efficiency in local governments and the barriers for promotion within the local government and to the communities as found in a survey of local governments in Idaho, Montana, Oregon, and Washington. It also points to the role local government associations, and local governments themselves, could have as vehicles for market transformation. This could occur if local government associations are harnessed to be agents of change for local governments and, similarly, if local governments are harnessed to be agents of change for their communities.

Background on the Local Government Association Support Project

Local government associations are membership organizations that provide services on behalf of their member cities and/or counties. These services often include fiscal planning, legislative support and lobbying, training, risk assessment and analysis, and information and education on policy issues from the state and federal levels. The Northwest Energy Efficiency Alliance (NEEA or the Alliance) has contracted with the four LGAs in its territory to provide infrastructure support for its market transformation efforts. The Local Government Association (LGA) Support Project is comprised of contracts with the associations representing local governments in each of the four states Washington, Oregon, Idaho, and Montana. The Alliance provides funding to these organizations for the LGA representative to provide support, assistance and communication between the Alliance and the LGA, and promote Alliance efforts to the LGA's members (city and/or county governments).

The four LGAs participating in this project are:

- Association of Idaho Cities,
- Montana Local Government Energy Office on behalf of the Montana League of Cities and Towns,
- League of Oregon Cities, and
- Association of Washington Cities

The Bonneville Power Administration (BPA) had initially developed a grant program with the LGAs to support its demand-side management efforts and operated this effort for more than a dozen years prior to the formation of the Alliance. The initial idea and impetus for the Alliance's LGA Support Project came from this earlier effort. However, the Alliance's mission and operation is in many ways significantly different than for the Bonneville Power Administration. As a grant program, BPA's effort provided general support for relationships between local governments and BPA. Another difference was that a great deal of BPA effort in other programs, that were coordinated with this grant program, included significant audit efforts at local government facilities not the market transformation projects as being promoted by the Alliance LGA project. As such, the LGA Support Project has been developed and is continuing to evolve to meet the new mission and views in a way that will best provide the most mutual benefits to the Alliance and the LGAs. One form of this evolution is the view of the LGAs as agents of change and how they can best serve in this role.

The LGA Support Project provides promotion of the Alliance's relevant market transformation projects for energy efficiency services and products to the hundreds of local jurisdictions around the four-state region. Since it is a support effort rather than a market transformation effort in itself, the LGA Support Project provides market transformation infrastructure. The LGAs provide a communication link between the Alliance and the many local governments across the Alliance's four states. This communication link provides two-way communication, a vehicle for communicating the Alliance mission, and support for specific Alliance projects. LGA supported Alliance projects in recent years have included support for the following Alliance projects:

- Resource Efficient Clothes Washers (RECW)—A project to promote resource-efficient washing machines in the Pacific Northwest and to work for a national standard of these machines. (Previously called WashWise.)
- LightWise—Promoting energy efficiency lighting.
- Building Operator Certification—A project that provides energy efficiency related training to facilities managers.
- Commissioning in Public Buildings—A project to promote adoption of building commissioning in the public sector.
- EZSim—A billing simulation software for facilities managers to examine their buildings' energy use patterns where complicated models requiring specialized expertise are not cost-effective to pursue (such as in rural communities and smaller facilities).
- BacGen—A relatively new initiative using micronutrients and process controls to reduce aeration energy consumption in wastewater treatment plants. (The LGAs have helped the project solicit and work with municipalities as pilot sites.)

The LGAs also serve as the communication link between the Alliance and the LGA member cities and counties. They inform Alliance Board members of concerns of the Associations' members regarding energy efficiency. They also keep LGA members current on Alliance projects and opportunities. And finally, the LGA Support Project implementers may work on policy and legislative issues that are mutually beneficial for the LGA, its members, and the Alliance.

Background on Diffusion Literature, and Market Transformation

The early theoretical discussions for analyzing market transformation (MT) for energy efficiency (and effects from MT projects) have been based upon identifying market barriers as described in transaction cost economics and reducing or eliminating these barriers as described in the *Scoping Study* (Eto et. al. 1996). This approach emphasizes participants and barriers.

The Market Effects Summary Study, conducted by Research Into Action for the California Demand-side Measurement Advisory Committee in 1998, recommended using the diffusion of innovation perspective for MT measurement and program planning. An early market effects study using this perspective includes the *PG&E Energy Center Market Effects Study* conducted by TecMRKT Works (Reed and Hall 1998). The diffusion of innovation literature emphasizes communication flows and processes. A classic summary of the diffusion of innovation literature can be found in Rogers' 1993 text *Diffusion of Innovation.*

The first uses of the diffusion approach in the energy efficiency field have been to frame market effects or market transformation measurement efforts in terms of communication flows. In 1999, two studies (Quantum et. al. 1999, and Xenergy et. al. 1999) employed communication feedback items and diffusion factors in their consideration of what barriers and market transformation mechanisms would be measured within these MT measurement studies. This concept is also being used for the Information Gap Analysis study conducted by the GDS Associates and Megdal & Associates team with the New York State Energy Research Development Authority in 2000.

The diffusion approach also presents a mechanism to view the development of market transformation over a period of time as it examines the awareness-adoption continuum. This approach has recently been used by Quantum Consulting and Macro in a project for the Alliance in 1999 and with development into a "building block" perspective with Megdal & Associates and Shel Feldman Management Consulting in current work with Pacific Gas & Electric Company's evaluation of residential new construction MT efforts.

Few programs, however, have taken a strong proactive approach to utilizing what is known in diffusion to refine diffusion and communication programs for market transformation. Nonetheless, the infrastructure nature of the LGA Support Project and its reliance on communication methods places it firmly in the role of assisting the Alliance's MT efforts through project diffusion among local governments. Though not originally designed as a diffusion and agents of change effort, the functions that the LGA performs and refinements to the LGA Support Project encompass this role.

Agents of Change and Possible Roles of LGAs as Agents of Change

There is a large body of research concerning how innovations are diffused through the market, society, and organizations. Diffusions through organizations add a level of complexity over considering adoptions by individuals. The level of complexity is raised again when one examines the multi-layered, multi-player political diffusion process in local governments.

Another important element in the diffusion of innovation literature concerns "agents of change". The agents of change help create the change in others through influence and communication. This is an important, but to-date overlooked, mechanism to understand as energy efficiency efforts create programs that interact with sectors or groups to encourage a change of behavior/practice for market transformation. The change agent provides the link between the client group and the entity desiring change (the change agency) and its actions to create change.

> "A *change agent* is an individual who influences clients' innovation-decisions in a direction deemed desirable by a change agency. A change agent usually seeks to secure the adoption of new ideas, but he or she may also attempt to slow the diffusion process and prevent the adoption of certain innovations with undesirable effects...the communication relationship between the agent and the client is important and a good deal of two-way information-exchange takes place. In decentralized diffusion systems, certain of the adopters serve as change agents for other adopters. Even in relatively centralized diffusion systems, the long-range goal of many change agents is to create conditions in which clients can help themselves, and thus work the change agent out of a job. *Communication*, defined as a process in which participants create and share information with one another in order to reach a mutual understanding, describes the contact between a change agent and clients." (Rogers, 1993, pp. 335.)

Agents of change can be an important mechanism to create market transformation. This vehicle for change provides the purpose for agricultural extension programs, and many health and development programs aimed at training community leaders to initiate change (such as is World Bank sanitation programs, and family planning efforts). This perspective highlights the importance of understanding human behavior and using communication and influence links to obtain market transformation. Similarly, the relationship between agents of change and the clients are key in creating the environment that can allow the agents to influence and create change in client behavior. The importance of relationship and communication links with the clients is why local government associations fit the model of agents of change.

The LGA Support Project evaluation included interviews and an e-mail/fax survey with the Alliance board members, interviews with LGA implementers, and LGA executive directors. All of those interviewed stated that the reason for contracting with the LGAs and one of their key advantages comes from their current relationships with local governments. Local governments will listen to the LGAs allowing access that might otherwise be difficult to obtain and that local governments trusted the LGAs to be working in their best interest.

The roles of a change agent are to:

- Develop (awareness of) a need for change on part of clients
- Establish an information-exchange relationship (rapport, empathy)
- Diagnose problems of existing alternatives
- Create an intent to change in client
- Translate the intent to action
- Stabilize adoption, prevent discontinuance

All of these roles generally fit within the LGA Support Project's goals and vision as seen by most of the Alliance's board members. There are, however, still a variety of roles and type of change agents that the LGAs could fulfill, depending on the goals and visions for the effort.

The interviews of Alliance Board members, the Alliance project coordinator, LGA implementers, and the executive directors of the LGAs all included questions regarding their perspectives of the vision for this project, and its goals, both short-term and long-term. One of the major findings of the 1999 LGA Support Project evaluation study is that the views of the vision for the LGA Support Project could be grouped into three different categories according to breadth. These different views of the Project's vision are more than just a theoretical difference. The different views lead individuals to want different types of project support and other activities from their LGAs and can influence their opinion of how much progress the Project has achieved.

The narrowest view of the LGA Support vision is that the Project should only work on legislation related to energy efficiency and, where and when appropriate, energy codes, as they fit with the Alliance goals. Those who view the vision as promoting Alliance projects in order to save energy in public buildings and operations, as well as legislation and energy codes hold the middle ground. The broadest view is that the Project should support both of these earlier types of efforts as well as promoting energy savings throughout the community via the community leaders.

Each view encompasses the previous narrower perspective. There is a vast difference in the narrowest and the broadest view. The narrowest view (Vision 1) has a very limited role for the Project while the broadest (Vision 3) sees the Project as part of the infrastructure to obtain Alliance project adoption and market transformation throughout all sectors in the region via their member communities. Figure 1 presents these views and their relationship to one another graphically.

Both View Two and View Three can be seen as different levels of using the LGAs as agents of change to create local government representatives that become agents of change. View Two is one that looks to create LGA implementers as agents of change for both the direct actions of the LGA members and to have the person at the city/county government who most takes on the energy role in the government act as an agent for change within the government decision process. View Three is more expansive as it wants all the things to occur within View Two and for LGA implementers to act as agents of change that in turn create the local government leaders, LGA member representatives, into agents of change for their entire communities.

The majority of those interviewed felt that View Two was the appropriate role for the LGAs, agents of change for local government investments and operations but not expecting them to help create local governments as agents of change. There was one interviewee who

held the narrowest perspective and approximately one-third that held the broad view for community influence.

Interviews conducted as part of the LGA Support Project evaluation indicate that the Project can, and has in some cases, empowered those who become involved, beginning to create agents of change. One interviewee took the concept one step further by suggesting that the LGA interest be expanded further to "work on a visionary process where city and county officials gather and think of the future".

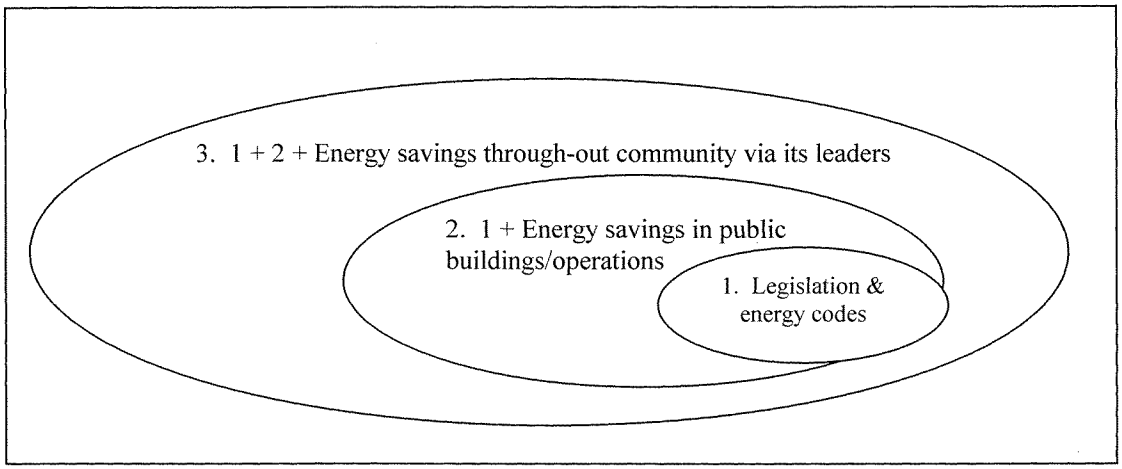

Figure 1. Different Breadth of Scope for LGA Efforts

Local Government Interest and Roles in Energy Efficiency - Survey Findings

A mail survey of local governments was conducted in the fall of 1999 as part of the LGA Support Project evaluation effort. This was one of several research efforts conducted in 1999 and early 2000 for the 1999/2000 evaluation. The survey was mailed to over 600 local city and county governments across the four states. The dense five-page survey obtained a high mail survey response of 36 percent with 230 usable returns. The survey provided a great deal of information for the evaluation, for program development and operation by the LGAs (to include a significant number of direct leads), and an assessment of the interest of local government in energy efficiency and their current roles and barriers.

The survey asked local governments how frequently they considered energy efficiency at four different levels. Each level is more expansive than the previous. The first two are various levels of potential local government efficiency breadth. The last two are varying levels of View Three, promotion of efficiency to the community, as discussed above. These are considering energy efficiency when:

- Designing and constructing new public buildings or facilities;
- Operating public facilities;
- Developing policies for zoning, building, and planning; and
- Promoting energy efficiency to their community.

Over half (57%) of local governments surveyed say they always consider energy efficiency when designing and constructing new public buildings or facilities. Less than half (42%) considers energy efficiency in the operation of public facilities. As might be expected, the broader the role examined the smaller the percentage of local governments supporting energy efficiency. Well over half (60%) of local governments either do not consider or only sometimes consider programs to promote energy efficiency to their communities. A comparison of this decreasing emphasis on energy efficiency as the potential scope is expanded, and the level of support by local governments in the Pacific Northwest, can be seen graphically in Figure 2.

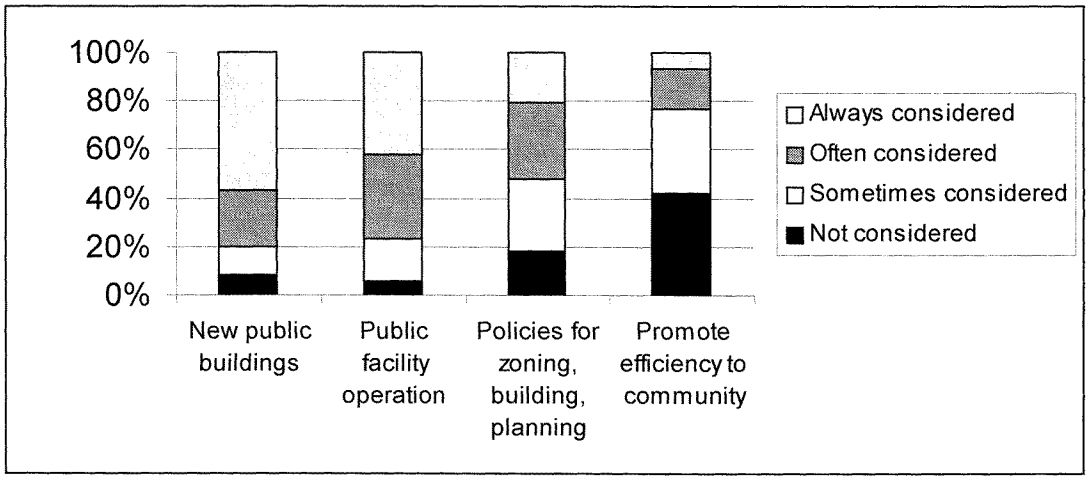

Figure 2. How often is energy efficiency considered by local governments?

Local governments were also asked to what degree the importance of promoting energy efficiency has changed in the last five years. The overwhelming response is that the importance of promoting energy efficiency has increased over the last five years; 49% responded that it is more important, and only 5% reported that it is now less important, as shown in Figure 3.

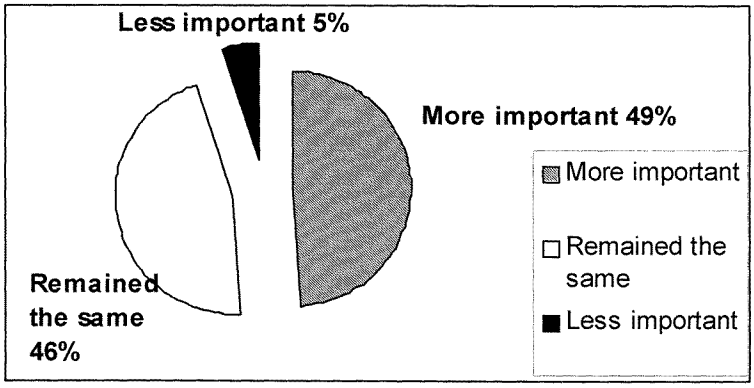

Figure 3. Has importance of promoting energy efficiency changed in last 5 years?

The barriers faced by local governments when promoting energy efficiency for public facilities and operations were measured through the mail survey. The most important barriers are in having the initial cost fit within the available government budget, the respondents not having enough information to promote efficiency to others in the decision process, and that energy efficiency is too low on the government's priority list. The ranking and measurement of barriers is presented in Table 1.[1]

Table 1. Barriers to Energy Efficiency Adoption in Public Facilities and Operations

1.	Initial cost of energy efficiency measure does not fit into available budget.	44%
2.	I don't have enough information to effectively promote it to others.	39%
3.	Energy efficiency is too low on the city's/county's priority list.	21%
4.	The pay back period is too long.	19%
5.	I have never tried to promote energy efficiency.	15%
6.	I don't know where to go to get energy efficiency information.	14%
7.	The benefits do not outweigh the costs.	14%
8.	There are too many uncertainties about long-term performance.	9%
9.	Regulations/ organizational procedures inhibit adoption.	5%
10.	I am unable to find the right equipment for the facility's needs.	2%

The two greatest barriers to local government promoting energy efficiency to their communities are that (1) no one has this responsibility in the local governments, with this barrier being seen by 43% of local governments; and (2) they do not have enough information to effectively promote energy efficiency to others encountered by over one-third of the responding local governments. The ranking of the barriers for community promotion of energy efficiency is displayed in Table 2.[2]

Table 2. Barriers for Local Govt. to Promote Energy Efficiency to Community

1.	No one in the city/county has this responsibility.	43%
2.	I don't have enough information to effectively promote it to others.	34%
3.	Difficulty in defining effort and its success.	27%
4.	I have never tried to promote energy efficiency.	21%
5.	Energy efficiency is too low on the city's/county's priority list.	18%
6.	Promotion costs are too high.	17%
7.	I don't know where to go to get energy efficiency information.	12%
8.	Community is not supportive of government promoting energy efficiency.	11%
9.	Legal/political concerns	7%

The mail survey allowed respondents to write in other barriers they see to promoting energy efficiency for public facilities, and to their community. Many of these fit within the above areas; two exceptions are that a few cities are too small for there to be much public facility concern or ability to promote in their community, and the mention by two

[1] A correlation analysis was performed to check whether individuals are responding that they have not tried to promote energy efficiency because they didn't have enough information or didn't know where to find the information. But no correlation was found between these responses in the survey.

[2] Ibid.

respondents of the importance of the architects and design community as they work with designing public facilities.

The mail survey asked members to report effectiveness of each of 13 different communication methods. A ranking of preferred communication method is provided in Table 3 by examining the average effective score the method received. The targeted and in-person communications received the highest rankings. These methods, and their rank, are:

- Personal communication (e.g., call, visit) from LGA (1)
- Response by LGA to inquiry by city/county on related area (2)
- Local meeting (4)
- Work of mouth from other city/county (6)

The greater the standard deviation in the average score tells us that some individuals rated this method high while others rated it quite low. For example, responses to an inquiry are viewed uniformly as effective. Similarly, advertisements in the LGA's newsletter are uniformly viewed as the least effective method of those surveyed. It is the variance seen in the methods and the rankings, and comments received in the Spring 1999 interviews, that support the need to use multiple methods to reach different people at different times and to reinforce earlier messages. The methods with the greatest range in effectiveness scores are as follows:

- Energy awards for outstanding energy efficiency projects;
- Using the LGA's Annual Conference; and
- Electronic mail or ListServ.

Table 3. LGA Rankings of Communication Methods – 1999 Survey

	Overall Average	% Stating Effective or Very Effective	Standard Deviation
Personal communication (e.g., call, visit) from LGA	3.5	51%	1.07
Response by LGA to inquiry by city/county on related area	3.3	42%	1.00
Demonstration sites	3.3	46%	1.05
Local meeting	3.2	41%	1.10
Case study reported in LGA newsletter	3.1	32%	1.05
Word of mouth from other city/county	3.1	36%	1.08
Article in LGA newsletter	2.9	26%	1.03
Energy awards for outstanding energy efficiency projects	2.9	31%	1.20
Regional meeting	2.8	27%	1.04
Electronic mail or ListServ (E-mail distribution to group)	2.8	30%	1.20
LGA Annual Conference	2.7	26%	1.20
Display at other conference(s)	2.7	22%	1.06
Advertisement in newsletter	2.5	13%	1.00

This means these methods can work well for some members and not well for others. The conference probably works well for those able to attend but is less effective for those who seldom attend. Similarly, e-mail can only be effective for those who have access to it.

The survey found that 55% of respondents have access to e-mail, but that also means that 45% do not have such access. Methods with high variance in their effectiveness should be used to reach those where it is effective, however, LGAs need to consider using other communication approaches to reach members these methods might miss.

The high ranking of personal communication from the LGA and being responsive to individual inquiries provides further support for the need of one-on-one communication with local governments in order to foster market transformation within local governments and to promote local governments as leaders and agents of change in their communities. The importance of one-on-one communication also points to the need for some type of program or entity that can function as MT infrastructure, as is possible for the LGA Support Project, serving as a resource to aid market transformation in local governments and their citizens.

Developing Agents of Change and the Potential of the LGAs

The Alliance's Local Government Support Project uses the four LGAs as a link to providing trustworthy information and marketing of the Alliance's programs to local governments. With two of the largest barriers faced by local government for promoting energy efficiency being a lack of information to effectively promote it, and no one having the responsibility for energy efficiency promotion to the community, information efforts seem quite appropriate. This type of mission is further supported by the fact that local governments report that energy efficiency is becoming a more important issue to them. The survey asked questions concerning awareness for a variety of Alliance programs and then asked if the respondent would like to learn more about each of the programs. We were quite surprised and pleased to discover that over two-thirds of the respondents (71%) asked for further information on the Alliance's programs. This finding too is quite supportive of using the LGAs as a link to local governments and that the local governments are interested and receptive to this service.

Emphasizing those elements that increase their probability of being successful can assist the LGAs and be used to help refine the methods they use as agents of change. The change agent literature identifies a number of factors that are correlated with the success of change agents. These are:

- Effort in contacting clients
- Client orientation (not change-agency orientation)
- Compatibility of innovation with client needs
- Empathy with clients
- Homophily with clients
- Credibility with clients
- Effort in working with opinion leaders
- Improving clients' ability to evaluate innovations

These factors of success can be used to select appropriate agents of change for the market of interest. More importantly, however, they can be used to help further develop and market the influence of the agents of change selected to aid market transformation. The degree of using agents of change for market transformation can be as a supplement to a specific effort, infrastructure to develop the energy efficiency ethic, or as the primary mechanism, such as is the case with agricultural extension programs.

In the case of the LGAs, these organizations can be used as agents of change to help transform local governments. At the same time, further development can include the LGA helping to create local government representatives and local governments as agents of change for their community, as local governments adopt an energy efficiency ethic and goals and promote energy efficiency to their communities. These two levels of influence and communication links hold much potential for aiding market transformation across multiple markets. Recognizing the amount of influence and the marketing/sales elements that can work with, and make better, agents of change could be a significant tool in the market transformation toolkit.

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