Municipal Energy Planning & Action
Strategic Review of Desired Outcomes and Required Support

Local Energy Committee Working Group
March – April 2010

Introduction

On February 25th, 2010, the Local Energy Committee Working Group (LEC WG) met with Allison Grappone, of the Northern Forest Center, to look at the role of the Local Energy Committees from a different perspective than had been considered during the previous 2-year period. Previous efforts by the LEC WG had developed tools and resources based on a roadmap that LECs "should" follow" to advance climate and energy action in their city or town. The discussion in February focused instead on first developing a vision for what <u>municipalities</u> could accomplish and then identifying the barriers and resources to achieve that vision. This municipal vision was considered to be an outcome that could be accomplished by the municipal government, the LEC, or a collaborative effort between the two.

The questions that were raised during the session included:
- What could be some areas of focus within municipalities regarding climate and energy action;
- What are the resources available to achieve the potential outcomes;
- What are the barriers/ gaps restricting achievement the potential outcomes;
- What are the potential roles of the municipal governments within this context;
- What are the potential roles of the Local Energy Committees within this context;
- What is the potential role of the Energy Efficiency and Sustainable Energy (EESE) Board's Municipal Energy Working Group (MEWG);
- What is the potential role of the LEC WG; and
- How can the MEWG and the LECWG coordinate efforts?

By first identifying a range of potential municipal outcomes, the available resources to achieve those outcomes, and the current gaps among those resources, then it was thought that both the MEWG and the LEC WG would have a clearer sense of the critical areas that they could focus on to support both the municipal governments and the LECs. By mapping the municipal landscape and clarifying the roles of the municipalities, the LECs, and their respective working groups, then the development and implementation of critically needed policy tools (e.g., technical assistance, educational, funding) could be more rapidly accomplished.

The following white paper provides one potential framework for arranging the information from this session and presents the information in the following sections:
1. Goals
2. Drivers/Risks
3. Means to Achieve Goals (Strategies/Tactical Goals)
4. Existing Enabling Resources
5. Barriers to Success/Gaps in Programming (Combined from 2/25/10 notes)
6. The Way Forward

4. Although, this document has undergone several rounds of review, it is expected that further revision by the MEWG and the LEC WG could further identify and clarify their draft goals and enable the two working groups to align and coordinate efforts.

Goals for Local Energy Committee Working Group

1. Develop a process for the development and sustainability of *any* LEC through the establishment of a relationship with the municipality regardless
   Potential process to facilitate:
   a. Formation/establishment of LEC
   b. Identification of a "champion" in municipality
   c. Coordination of efforts to develop a common set of achievable energy related goals– short, medium, long term - in coordination with municipal input
   d. Assessment of the situation in the municipality
      i. Identify resources that they possess
      ii. Identify the resources that they require
   e. Reach an agreement with municipal representatives regarding deliverables and timing
   f. Completion of work
   g. Build on this initial success to tackle larger, more aggressive and longer term targets.
   h. Build or strengthen grassroots support in the community for energy action; cheerlead

Drivers/Risks

The risk factors contributing to the need for the municipal-level energy & climate action include:

1. Expectations that the global demand for fossil fuels, most notably oil and gas, could increase once the recession ends leading to increases in energy costs. The increasing demand for energy by major developing economies (i.e., India and China) could be a major driver of energy costs going forward. The cost of extraction will increase dramatically for most new sources of fossil fuels and externalities such as public health impact will increasingly affect cost.

2. Over the long-term, production of oil will eventually peak and decline resulting in reduced supply and availability and increased energy costs.

3. Due to the global nature of the energy market, geopolitical instability (e.g., violent conflict) and natural disasters (e.g., extreme storms) are able to significantly impact short-term energy supplies and costs.

4. The combustion of fossil fuels to heat, cool and power our economy is largely responsible for the release of the greenhouse gases (GHG) that cause climate change.

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Potential Means to Achieve Goals (Processes/Strategies/Tactical Goals)

Follow the "Municipal" Energy Roadmap

1. Benchmark municipal energy consumption.

2. Establish a baseline for aggregate municipal data.
    a. Consumption; and
    b. Energy costs/expenditures.

3. Conduct an audit of specific structures/facilities.

4. Develop a municipal energy plan including:
    a. Priorities; and
    b. Timelines

5. Implement the Plan
    Direct
    a. Map resources available to the municipality
    b. Select projects with sufficient internal and external resources
    c. Engage in planning for and regulation of future development
        i. Ensure codes match energy/climate plan (responsibility of the planning board and select board)
        ii. Integrate financial support continuation of energy efficiencies in town budget (responsibility of the selectmen/city council

    Indirect
    a. Establish a single municipal energy budget
    b. Promote awareness through outreach and education
        iii. Concept/understanding of self-reliance/security
        iv. Cost containment
        v. Environmental protection/stewardship
    c. Develop the Social Support
        vi. Consensus building around decision making
        vii. Development and establish legitimacy
        viii. Build social capital in communities

6. Revise and update municipal energy plan as knowledge, skill, resources and support increase.

<u>Existing Enabling Resources</u> (to assist efforts of municipalities, LECs or both together)

Resources that are presently, or soon to be, available to implement the Plans.

Organizations/Groups – potentially provide technical assistance, resources and funding
1. Regional programs
    a. Leadership NH
    b. Regional Planning Commissions

2. State & Federal agencies
    a. EPA
    b. OEP
    c. NHDES
    d. NHDOT

3. Existing companies/orgs/non-profits with tech support
    a. Jordan Institute
    b. CA-CP
    c. NH Coop Ext-Energy Answers
    d. NHSEA

Programs
1. ARRA-EECBG-Technical Assistance Program
    a. CLF Ventures
    b. Peregrine
    c. Coordinating with:
        i.   NH RPCs
        ii. CA-CP
2. Municipal Energy Assistance Program (MEAP)
    a. CA-CP – (DURATION?)
3. ICLEI- limited to larger towns – requires annual membership fee
4. Sustainable Communities initiative (US DOT)
5. Upcoming HUD Program

Programs and Policies to Monitor
6. Transportation reauthorization

Tools
1. Plans
    a. Climate Action Plan
        i.   Recommended Actions
        ii. Energy and Climate Collaborative
            1. Recommended Action Database
    b. Innovative Land Use Planning Techniques (DES)
    c. New Hampshire Handbook on Energy Efficiency & Climate Change - Volume I & II
    d. RGGI Roadmap
    e. RPC Regional Plans
    f. Municipal/County energy plans
    g. Sustainable Economy Initiative (SEI) – Northern Forest Center
    h. District heating roadmap

2. NPR inventory of zoning changes (?)
3. Quantification and Measurement
    a. EPA Portfolio manager
    b. EPA benchmarking tools
    c. CA-CP small town carbon calculator (STOCC)
4. MA energy info system - other states?
5. Education & Outreach
    d. Communication success of existing (e.g., Epping, Atkinson)
    e. Energy Portal
    f. UNH Energy Answers hotline

Funding
  Public Financing
1. Federal
    a. Short-term
        i. ARRA
            1. EECBG
                a. Municipal Grants
                b. DOE- Retrofit Ramp-Up ("Beacon Communities")
    b. Federal/state grants and loans
    c. Fed Bonds
    d. Federal Tax Credits

2. State
    a. Long-term/Established
        i. RPS Fund
        ii. RGGI Fund
        iii. SBC/Smart Start

3. Municipal
    a. CDFA Revolving Loan Fund
    b. Municipal bond w/national banks
    c. Municipal electric utility
    d. Property Assessed Clean Energy Financing (PACE)

  Potential Private Financing
1. Equity
2. Time of Day Pricing
3. Bank financing
4. Community banks
5. Foundation grants
6. Individual contributions
7. Grant funding
8. Upcoming – private/bank financing
9. Demand response
10. Group purchasing
11. Qualified Energy Conservation Bonds (QECBs)
12. Clean Renewable Energy Bonds (CREBs)
13. Performance contracts

14. Renewable Energy Credits

Events/Marketing/Outreach
1. Events
    a. OEP Energy Conference (May)
    b. LEC's June 19th conference
    c. NH LGC workshops for municipal employees

2. Outreach and Awareness campaigns
    a. Media outreach
    b. web, including social networks
    c. print
    d. TV
    e. radio
    f. circuit riders

Human Capital/Experience (?)
1. Numerous CSR/"green" graduate programs- graduates w/knowledge
2. Higher education institutions
3. Local school teachers/students focus dialogue on sustainability

Observations of Current Municipal Communities

This section evaluates the landscape without considering the presence (advantageous or disadvantageous) of the LECs. The LECs could be considered later as a means to fill the gaps, either in the long-term or the short-term.

Role of the Municipality
1. Runs the government
2. Establishes the budget
3. Negotiates contracts and pays the bills
4. Answer to the voters

Barriers - Resources
    Staffing
1. Internal (municipal)
    a. Municipal staff too busy with day-to-day business/lack of time
        i. Prevent development of good consumption/cost information (possibly b/c it's not high priority?)
    b. placement in job description
    c. the right position in municipality to do job (town manager/administrator)
    d. support from municipalities and/or governing body
    e. staff experience
    f. leadership skills of the champion important
    g. lack of technical knowledge (content and skill-based)
        i. Financial skills
            1. lack of understanding of how to make a long term plan/look at ROIs
        ii. Technical skills
            1. Project implementation
            2. Applicable Technology
            3. trainings
            4. basic knowledge

ii. Technical skills (cont'd)
5. need to make decisions based on facts rather than impressions/opinions
6. coordination with tech assistance
7. lack of technical skills
8. technical skills w/in a communities decision makers

2. External (e.g., non-profit, RPC, consultants)
   a. Insufficient technical assistance for energy efficiency improvements
      i. coaching through the complex decisions- financial and technical
      ii. education about options
      iii. small town planning may need help from regional assistance center
      iv. hand holding assistance
      v. lack of knowledge about energy systems/options - need to be taught to value energy

Data
1. getting data in a useable format
2. easy to access data
3. data/metrics real time or close to
4. information concerning municipal energy use not easily identified

Tools
1. need easy-to-use tools
2. the size of community and size of resources varies – a certain threshold is needed for resources for a community of any size (economy of scale)

Funding - To invest in energy efficiency improvements and renewable energy projects
1. limited availability of funds (not much available)
   a. lack of funding opportunities
      i. limited financial tools
         1. public funding system in NH
         2. financial- private financing
            a. business models of banks
         3. getting demand side management funds to community projects
         4. financing: up front funding, cash positive, 20 yr return
   b. limits of funding pathways
      ii. getting ARRA money to communities in an efficient way
   c. difficult economic times
      iii. budget crisis/recession limits resources availability
         1. matching capital
      iv. recession impacts people's willingness/ability to think/plan long-term
2. Lack of clear path for locating and obtaining funding (can't find what's available)
3. Limited scope for financing projects
   a. capital costs rather than sum of capital & operating costs drive decisions
4. Complexities of financing options (don't know how to work with what's available)
5. Stability of funding
   a. ARRA's limited term of availability

Models - not enough examples of success to inspire (includes communication of their existence)
1. significant project in EE and RE
2. processes/operations
3. model communities
4. state-level projects and resources

Barriers - Policy/Politics
1. Local Level
    a. political will/courage
        i. fear that addressing energy may alienate members of public
        ii. limited public support
        iii. other "hot button" issues take precedence
    b. easy to dismiss as a political agenda
    c. elected leadership
        i. individual constituencies
        ii. return may not match election cycle
    d. politics of climate change
    e. gap between school and municipal administration
    f. lack of set of municipal policies/vision

2. State-level
    a. lack of state energy policy framework
    b. high-level political leadership
    c. politics of climate change

"Parked"
3. political savvy and local government support

Barriers - Communication
1. coordination of efforts among groups
2. determining what municipalities need
3. fundamental agreement on first principles
4. aggregation or coordination across municipals/regions
5. lack of access to media

Barriers - Systemic – big picture (influences politics)
1. General
    a. business as usual – do what we've always done
    b. system not set up to benefit people who did work (lacks incentive)
    c. lack of long-term systems-thinking

2. Political
    a. public will
    b. tangible sector by sector/municipal-by-municipal specific goals
    c. school to municipal

3. Social
    a. lack of awareness/belief of impending catastrophe
    b. man power/ will power to implement and follow through
    c. human gap, not a resource gap – motivation

4. Economic
    a. concerns about short term costs keep communities from developing durable, long-lasting infrastructure
    b. externalized costs are not accounted for
    c. recession impacts people's willingness/ability to think/plan long-term

Barriers - Sociological/Psychological (Perception) – influences systems and politics
1. climate change
    a. general lack of concern about GHG
    b. disbelief in climate change
    c. overwhelming nature of problem
2. collective action problem
    a. lack of shared sense of purpose
    b. lack of attention from residents
3. interest for the issue in the community (there are bigger issues)
4. habits of energy use
    a. lighting (cruisers/lighting)
5. too many other pressing issues taking energy/resources
6. idea that it's outside of 'regular' business of the municipalities
7. idea that it will 'cost' them $

"Parked"
8. cultural shift
9. realization we are moving to more compact lower standards of living

Barriers - Leadership/Ownership
1. leadership vacuum
2. lack of leadership or a champion
    a. who can/does own it?
3. level of ownership: national, state, municipal, individual

Barriers - Incentive/Penalty (??)
1. penalties for non-achievement
2. energy prices too low

Observations of Current LEC Community

This section evaluates the landscape with the presence (advantageous or disadvantageous) of the LECs.

General
1. Variety in quantity and quality of projects
2. Varied Expertise
3. Variety in focus (buildings, business, foods, etc)
4. Grassroots to professional spectrum
5. Committees grow and mature over time
6. Connections/partnership with towns vary
7. Expectation of transformative change leads to attrition
8. Projects vary in approach to energy issue- no standards
9. High assistance needs during grant processes
10. Local politics at play

11. Size of committees don't correlate to size of community but more to resources

Barriers - Organization

1. Mixture of support from the municipality. This support seems to help the effectiveness of the LEC
2. Integration - Some towns have their own experience and expertise and staff LEC not clear on their role
3. legitimacy in LEC
4. municipal staff not connected to LEC
5. Varied expertise
6. Focus varies. Municipal buildings or local foods.
7. Not always well connected to the towns or not aware of EECBG grant applications
8. Leadership stills (Champion) important
9. Expectations are not always realistic
10. Not always feeling sense of accomplishment
11. Could mess up the local politics – for example fixing buildings where there are many people who want to tear the building down
12. recruitment

Barriers - Communication

1. coordination of efforts
2. asking municipalities what their needs are?
3. fundamental agreement on first principles
4. communication of model projects
5. municipal staff not connected to LEC
6. aggregation or coordination across towns/regions
7. lack of access to media

Perceived Keys to LEC Success

1. Strong experience brings quality to committees
2. Strong support from towns is important although some are successful without support
3. Leadership is important
4. Time commitment and availability is important
5. Consider project scope/value and if expectations (of group & large resident body) are affected by it
6. Research work already done by the municipality (inventory)
7. Research work done by other committees/towns
8. Good expertise brings a lot more energy to the committee. Tracking the right people into the committee.
9. include strong professional backgrounds such as lawyers, engineers
10. leadership skills of the champion important