

**Energy Efficiency Advisory Panel
Technical Stakeholder Workshop – Municipalities – September 14 and 15, 2016**

**Alberta Energy Efficiency Advisory Panel
Municipalities Workshops**

Wednesday, September 14 and Thursday, September 15, 2016
Holiday Inn Conference Centre, Edmonton South

AGENDA

Day 1

1:00pm

Welcome and Introductions

Presentations

Small Group Discussions

- Given what you heard in the presentations, and considering what you have tried in your municipality with regard to energy efficiency, what are some themes and commonalities you see across the province in what has worked, what hasn't, and what's been learned with regard to energy efficiency initiatives in municipalities?

4:30pm

End of Day 1

Day 2

8:30am

Small Group Discussions

- What could Municipalities do to be more energy efficient? What obstacles and barriers need to be overcome? What gaps are there? What opportunities are there?
- How could Municipalities implement these ideas? What programs, opportunities, enablers, education, regulations, and/or incentives would help us achieve these ideas? How might we bring these changes about?
- What could citizens in your community(ies) do to improve their energy efficiency? How could Municipalities encourage or support citizens to be more energy efficient?
- What could organizations – for-profit companies and non-profit societies – in your community(ies) do to improve their energy efficiency? How could Municipalities encourage or support organizations to be more energy efficient?
- How do you envision municipalities working with the Alberta Energy Efficiency agency?

12:00pm

Lunch

12:45pm

Criteria, Key Principles, Rationale

- What criteria, principles and/or rationale do you think could be used by the Agency for choosing or prioritizing programming / opportunities/etc. and for allocating funds?
- Key Messages

2:45pm

Closing Remarks

3:00pm

Farewell and Safe Travels

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Summary – Day 1

Participant Presentations

Edmonton and Ponoka

- Energy literacy, knowledge of use, education and outreach to accompany rebates
- Bills show all information; automated metering
- Simplified Microgen application process
- Can province and municipalities work together/synergize; is there a 'provincial roadmap'?

Medicine Hat

- Bills show hourly rates and use; rebate program
- Energy audit tool kit but door/window program closing due to administrative paperwork
- Need info on emissions reduced, what is payback, pre and post measurement to update roadmap and targets

Calgary

- Data needed but expensive/difficult
- Must measure performance, financial impact and return on investment as well as GHG reductions and cost avoidance
- Corporately, in operations try to change behaviour (green driver training; power contracts; how to invest in new infrastructure)
- At community level, consider how investment in energy efficiency can be made on e.g. transportation, land use and buildings (permits, staff training, educating developers)
- Have realistic goals; best practice pilots; innovation; education

Black Diamond

- Focus on utility management in three buildings (arena, office, outdoor rink)
- Using energy management automated system for reduced water consumption/refrigeration run times; includes solar and wind turbines
- Green fund reserve to support other green projects; self-generation helping to accomplish expansion

Leduc

- 2012 Environmental Plan (waste, water, energy, energy efficiency, solar) via [utility company] lease
- 2017 GHG inventory and action plan (CCEMC grant of \$1.25 million)

Municipal Energy Efficiency Initiatives

What Has Worked Well?

- Municipalities are addressing alternative energy options
- Trying to do the right thing
- Leveraging on existing programs will help municipalities (e.g. Growing Forward Ag Solar program) as well as partnerships, which save money through cost sharing
- Collaborative grants such as Alberta Community Partnership is a good model (economies of scale for cost sharing)

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- Incentives help smaller rural communities get started
- Rebates if long-term programming (no effective change if short-term or one-time)

What Has Not Worked Well?

- Pilot programs that lead to new company start-ups/consumer uptake result in industry drop when pilot program ends, or inflated charges where industry takes profit and there is no saving to the consumer (e.g. solar, energy audits, high efficiency services)
- While municipalities are doing a lot, there is no consistency in the 'deliverable'
- Planning for efficiency in existing or older infrastructure is not really being addressed
- Waste generation projects – economies of scale were not there
- Contracts for new e.g. Microgen take too long
- Door-to-door compact fluorescent lightbulb distribution – no way to track use or disposal
- Don't invest in small wind turbines
- Stop doing pilot programs; get the projects done
- Not enough detail from the Province about municipal responsibilities e.g. to have 30% renewables by 2030
- Utility partners can be barriers (slow on customer service response, limited options, complex questions not answered)
- No single source of data (too many info systems); hard to know where to look but need good granularity of data to support municipal decisions
- Sharing of best practices across REDA and provincial government

What Has Been Learned?

- Sustainable funding is needed
- Programs must be measurable, with established benchmarks for evaluating success, with good access to data; define success and targets
- Marketing for public support and involvement (including education) is crucial to address barriers to adoption (e.g. try 'reverse engineering') and to drive allocation of capital (convincing homeowners to invest in energy efficiency)
- Education is key to driving behaviour change, especially for younger generation more likely to 'buy into' benefits of energy efficiency – focus at the individual scale for change, e.g. farmers
- Energy literacy is crucial – rediversify educational curriculum; develop and use common language
- Keep the paperwork simple
- Make bills more informative and easier to understand
- Show/report successes e.g. in GHG reductions
- Municipalities need a sourced grant-writer to share among municipalities for this scale of programming
- Initiatives on this scale take a long time

Other Themes/Commonalities/Considerations/Opportunities

- Expect the expectation that measurable results from carbon pricing will be required
- Should assessed property value increase by adding residential solar (greater property tax may be a disincentive)?
- No provincial policy statement currently mandates environmental plans e.g. under MGA, so province is not driving change (but the carbon levy may)

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- Need to recognize variation in size/reach of smaller municipalities re their capacity; a regional approach could help tie in things like transit
- How will the levy remain revenue-neutral? Will all funds be used for supporting uptake?
- Energy efficiency needs to be driven by economics
- Consider an open, flexible outcomes-based approach with set targets (e.g. 10% reduction, 25% reduction), leaving mechanisms and specifics for consumer to choose
- Community projects may be good precursors to changes at the individual scale
- New Agency could provide data and info to Municipal Affairs to assist with informing change in building codes
- Operational / organizational changes are needed – land use bylaws, building codes but also skill set diversity (how to support those who supported the economy previously)
- Have clear program goals
- Municipalities will spend only what is absolutely needed; won't take steps unless mandated – focus is on capital not operations; standardized tools will help with this
- Provide business cases to show different payback scenarios and ensure provincial support within a long-term plan (e.g. standard designs/models) – must have Council and Administration on side – no decisions will be forthcoming without good, granular data on savings
- Public viewpoint on municipal administration/politicians may not be 'good'
- Political cycle, political will and budget are barriers
- Need to see detailed business case for energy efficiency and how it reductions will be implemented by 2030
- Regional work and inter-collaborative frameworks and the MGA could coincide so as to bring energy efficiency regulation front of mind
- Definition provided for community energy systems does not include municipalities

Summary – Day 2

What could municipalities do to be more energy efficient?

- Retrofit and utilize new technologies for water treatment
- Undertake renewable energy projects with cost reduction and certainty as drivers
- Promote employee behaviour changes (supported by automation to reduce energy) – instill a culture change
- Do building audits and assessments (individual buildings, building stock and systems)
- Optimize fleet vehicle energy; promote electric vehicles and use municipally owned charging stations for municipal and private vehicles; involves fuel choices, route selection, employee commuting
- Use environmentally responsible vendors in supply chain management
- Monitor energy; determine areas of highest consumption; better data collection especially around heat; consider building envelope and configuration
- Use more efficiency technology for street and traffic lights
- On site/local energy generation; helps citizens see and learn
- Develop municipal/regional/provincial energy plans (embedded in MGA)

What obstacles and barriers need to be overcome? What gaps are there?

- Champions are needed including strong Council supporting energy efficiency
- Current low cost of energy makes it difficult to foster support for efficiency; not a priority

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- Difficult to get data from utilities – could Province help with this?
- Need to simplify Microgen process
- Municipalities need advance notice to prepare for provincial programs
- Incentive programs are needed (more crucial in smaller municipalities);
- Utility corporate policies can be rigid; change is cumbersome
- Hesitation to explore water re-use policies and regulations

What are the opportunities?

- Education and awareness – local show case sites (e.g. Hutterite colonies re fuel switching)
- Up front grants to citizens through service provider, province or agency
- Tie sustainable grants into budget cycle to reduce delay in uptake
- Renegotiate with larger service providers with assistance from Province
- Share success in one municipality with others of similar size to demonstrate value
- Energy audits to focus on areas to work on
- Specialized training for developers on energy efficiency
- Incentives for developers (more funding for municipalities and MCCAC)
- Increased collaboration
- Landfill alternatives (small-scale renewables, co-gen, plasma, biomass, composting, recycling, etc.)
- Sharing learnings, e.g. learning centre as shared point of contact
- Regional collaboration, and provincial-municipal collaboration
- Municipal intern program to increase education in e.g. rural areas
- Develop community sustainability plans
- Possible universal levy for energy efficient improvements

What could citizens do to be more energy efficient, and how? (What can municipalities do to support?)

- Require more of homebuilders to provide energy efficiency (incentives e.g. partial-pay for energy audits)
- Use alternate transportation (educate; build infrastructure)
- Increase education / awareness (focus on e.g. low income homes/renters; coordinate through social agencies; build on awareness of students taking information home; info booths; videos; donation programs; install smart meters)
- Support and endorse local champions in the community (energy efficiency challenges in schools; enable community-based organizations to participate in distributed energy; scholarships; stewardship programs)
- Adopt micro-gen (adjust programming for rural i.e. agricultural and urban users)

What could organizations – for-profit companies and non-profit societies – do to improve their energy efficiency? How could Municipalities encourage or support organizations to be more energy efficient?

- Reduce overall consumption; do energy audits
- Require energy audits but make them easier and cheaper
- Do energy mapping to cluster together e.g. industrial land uses to synergize/maximize waste sharing, energy efficiency, savings
- Facility sharing (health, seniors, faith services)

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- Municipalities stipulate that developers incorporate high density living buildings and advocate for provincial support to help reach energy efficiency decisions
- Use more efficient, sustainable transport; build sustainable infrastructure
- Work in partnership e.g. community groups, services, facilities, industries, post-secondary
- Recognition, e.g. municipal excellence programs similar to Emerald Awards
- Find ways to reduce financial risk, e.g. creative insurance policies, municipal debt limits, tie lending to property not individual
- Municipalities have a big role in education, e.g. with citizens, contractors, building owners, developers

How do you envision municipalities working/engaging with First Nations and Métis Settlements on energy efficiency?

- Education for everyone, in collaboration
- Learn from their communities to understand their perspectives; build trust and friendships
- Must understand uniqueness of each community
- Need to learn more about how collaborate with Indigenous communities
- Start with data, including traditional ecological knowledge
- Energy efficiency standards should apply to all – there should be no blurring caused by federal and other jurisdictions when it comes to power consumption between neighbours; one standard for all; small scale renewables can be envisioned but slow-moving once federal government involved

How do you envision municipalities working with the Energy Efficiency Alberta agency?

Agency

- State clear goals
- Provide a common language for use across the province
- Access to subject matter experts, help municipalities make informed decisions
- Keeper of best practices / library / repository of projects; and share same with municipalities; keeper of repository of installers, suppliers, developers, contractors (one website, one list)
- Take the lead on grants / initiatives
- Provide data collection / dissemination / proof of results
- Assist municipalities to meet provincial requirements
- Lobbying, in cases where municipalities aren't able to; connect at political levels
- Prepare municipalities for agency launch in order to field calls about the agency
- Must work with municipalities in times of emergency response
- Participate in local events – awareness, education, training, curriculum
- Include municipally elected officials on the Board
- Work with and for municipalities, e.g. regional staffing/offices to help create relationships; ensure rural/urban municipalities are at the table for decisions (perhaps rotate committee representation)
- Assist with collaboration with utilities
- Provide starter kits about potential project types so municipalities don't have to do one-off feasibility studies

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Municipalities

- Collaborator, front-line delivery agent
- Receives funding and has authority to deliver
- Communicator with communities – can also distribute common messages on behalf of agency
- Work with agency on ‘single actor’ problems to boost provincial policy
- Should not be able to opt out of working with agency (possibly sign a ‘climate treaty’)
- Collect and provide energy data
- Show leadership

Criteria, Principles, Rationale for the Agency

- Clear, common language
- Projects must show return on investment
- Education
- Accessibility
- Flexibility – diverse portfolio of programming, but delivered consistently; some can be short-term, medium-term or long-term
- Acknowledge capacity concerns within municipalities
- Programs should be ready to ‘launch’; ease of implementation
- Must enable municipalities to get their own renewables and but also incent citizens to invest in renewables
- Recognize urban / rural diversity – be fair
- Sustainable funding (i.e. longer than two years), sustainable projects
- Not defined by geography
- Multiple metrics to be measured (GHGs, cost savings, jobs, projects, energy reduction, cost effectiveness)
- Audit across the province, not just some localities (economies of scale); will drive action
- Auditors or energy managers to be embedded in municipality
- One-stop shop for EEA, ACCO, AEP
- Data transparency and sharing; sound governance
- Celebrate successes

Final Key Messages

- Ensure every Albertan has ‘skin in the game’ (benefits, advantages, savings, opportunity)
- Combine incentives (short-term tool) with regulation to drive market transformation
- Educate, train, build capacity
- Accountability and transparency
- Keep programs simple; offer a diversity of programs to align with peoples’ range of values
- Make utility bills more clear
- Ensure ease of access to funds especially for smaller communities; recognize diversity of larger and smaller communities; act as clearing house for education and tools; provide tools for municipalities to develop their plans
- Long-term funding
- Modify MGA to allow municipalities to offer PACE (Property Assessed Clean Energy) loans
- Benchmarking and ongoing monitoring; measure and report (costs and savings)
- Leverage data for better decision-making
- Keep the end users in mind
- Continue engaging with municipalities throughout