

Environmental Coordinators/Managers Meeting

PCP GHGe Plans and Conservation Demand Management Plans: What's Going On?

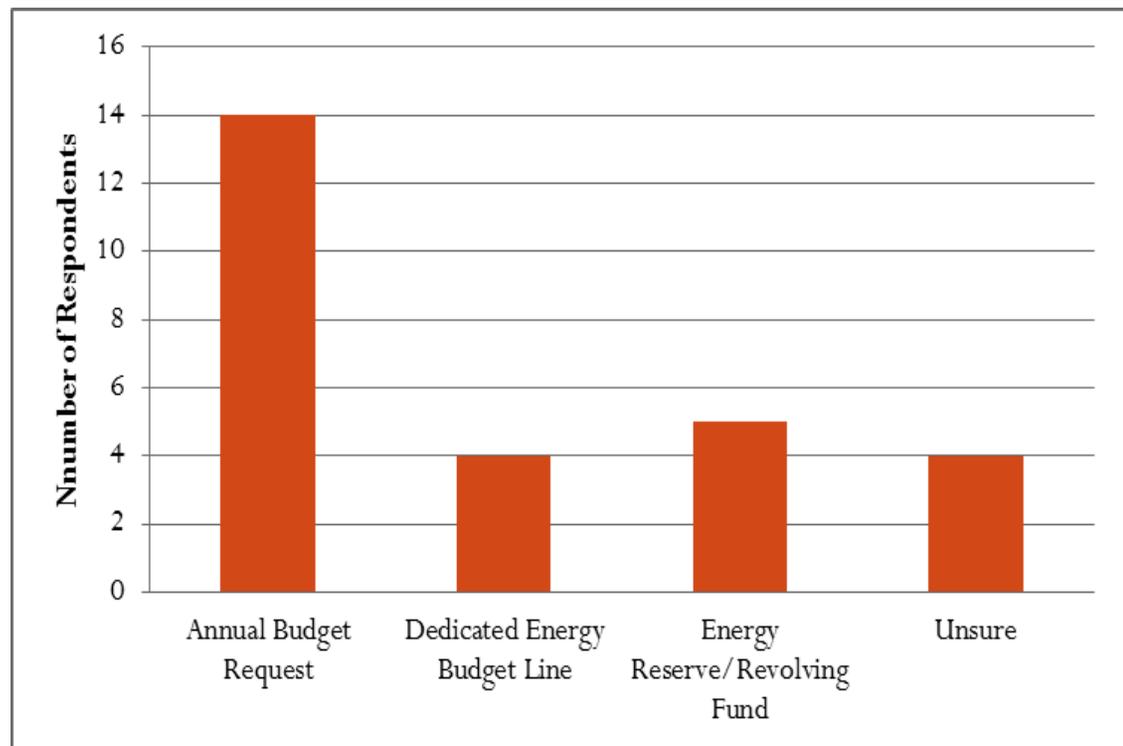
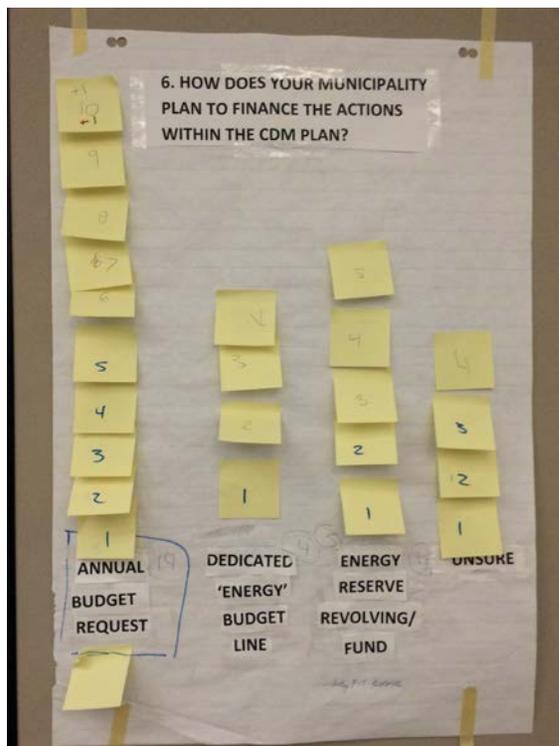
HOSTED BY: THE TOWN OF OAKVILLE & CALEDON

November 14th 2014

PCP GHGE PLANS AND CONSERVATION DEMAND MANAGEMENT PLANS: WHAT'S GOING ON?

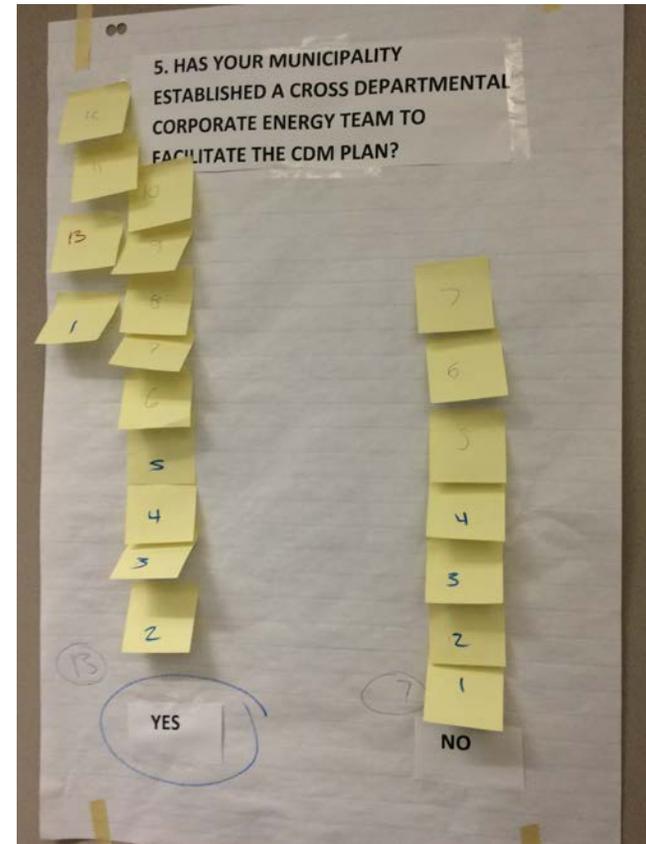
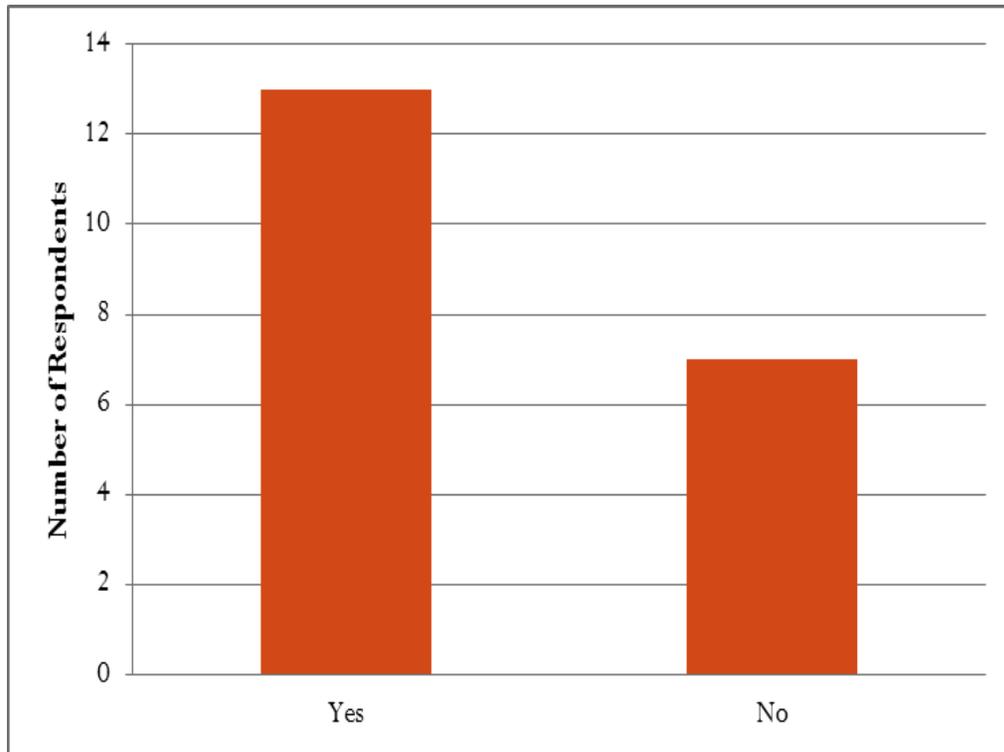
Session One: CDM Components and Barriers

1. How does your municipality plan to finance the actions within the CDM Plan?

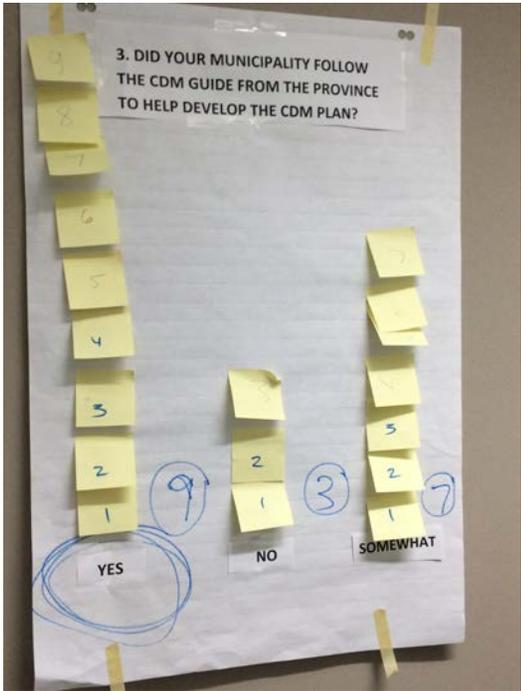
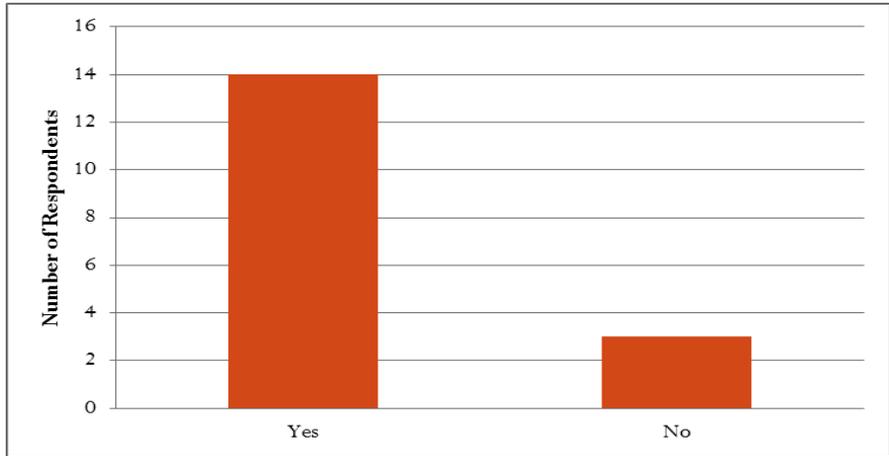


2. Has your municipality established a cross departmental Corporate Energy Team to facilitate the Plan?

- Facility staff involvement is critical
- Opportunity to let staff know about incentives and funds for existing work or capital projects
- Assist in implementing the CDM Plan, and prioritize actions within the Plan
- Shares the responsibility of energy management throughout the Municipality
- Assist in tracking projects and their successes throughout the Corporation

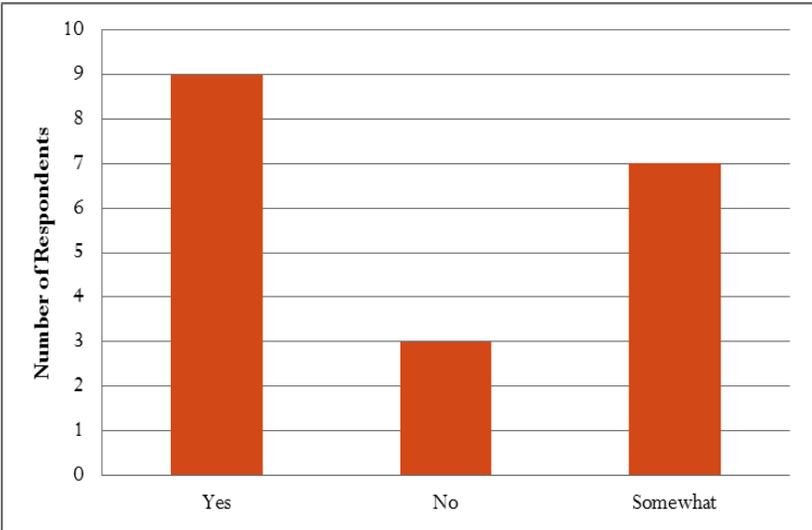


3. Does your municipality have a staff member dedicated to implementing the Plan?

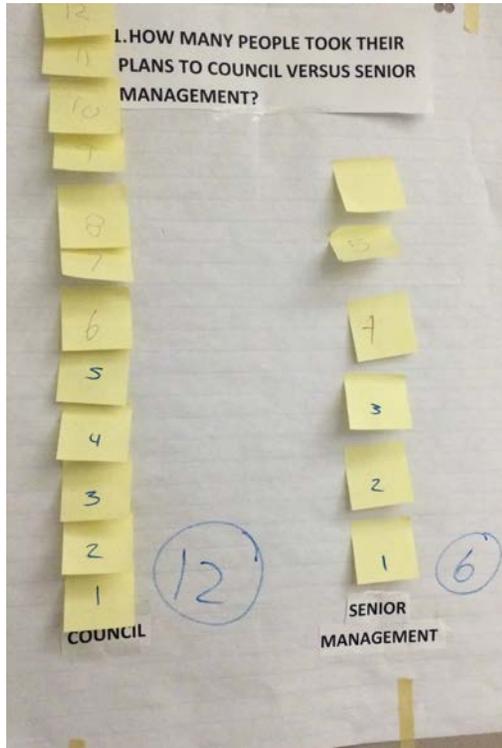
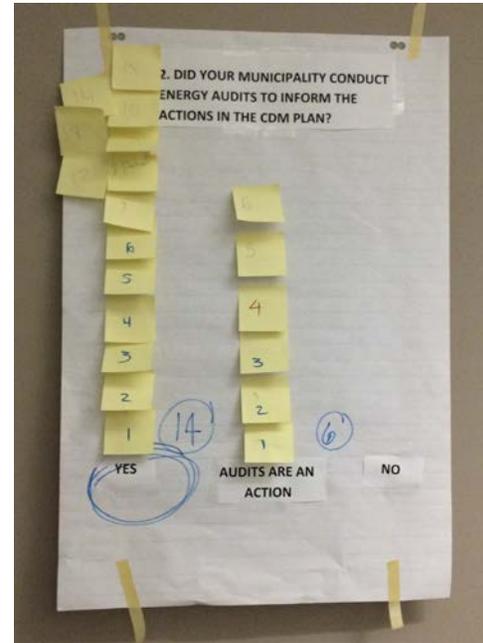
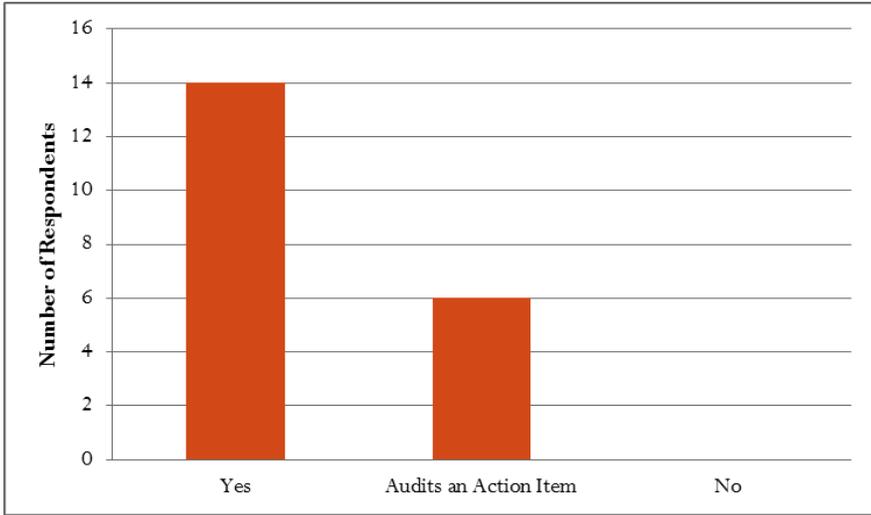


4. Did Your Municipality follow the CDM Guide from the Province? Did it help you to develop the CDM Plan?

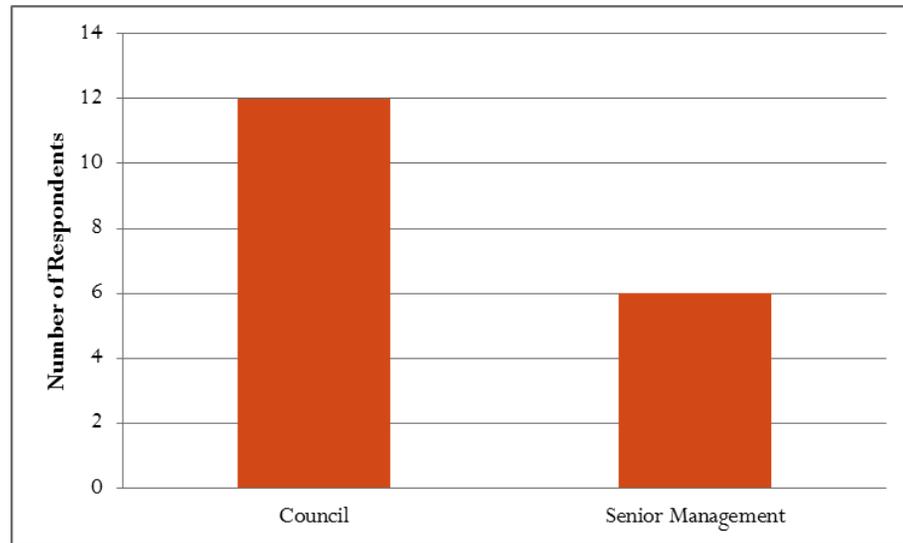
- Some Municipalities had a Plan in place prior to the guide and had to change the plan to fulfill the Provincial legislation
- Lack of consultation with Municipalities in developing the Guide
 - Beneficial to discuss with OPA/ IESO
 - Some consultation at AMO Energy Task Force
- Geared towards electricity planning, versus greenhouse gas reduction planning.
 - Should be broad to tackle the 'bigger problems'



5. Did your municipality conduct energy audits to inform the actions in the CDM plan?



6. Did your municipality take the CDM plan to Council or Senior Management?



7. What barriers has/will your Municipality faced in implementing the CDM Plan?

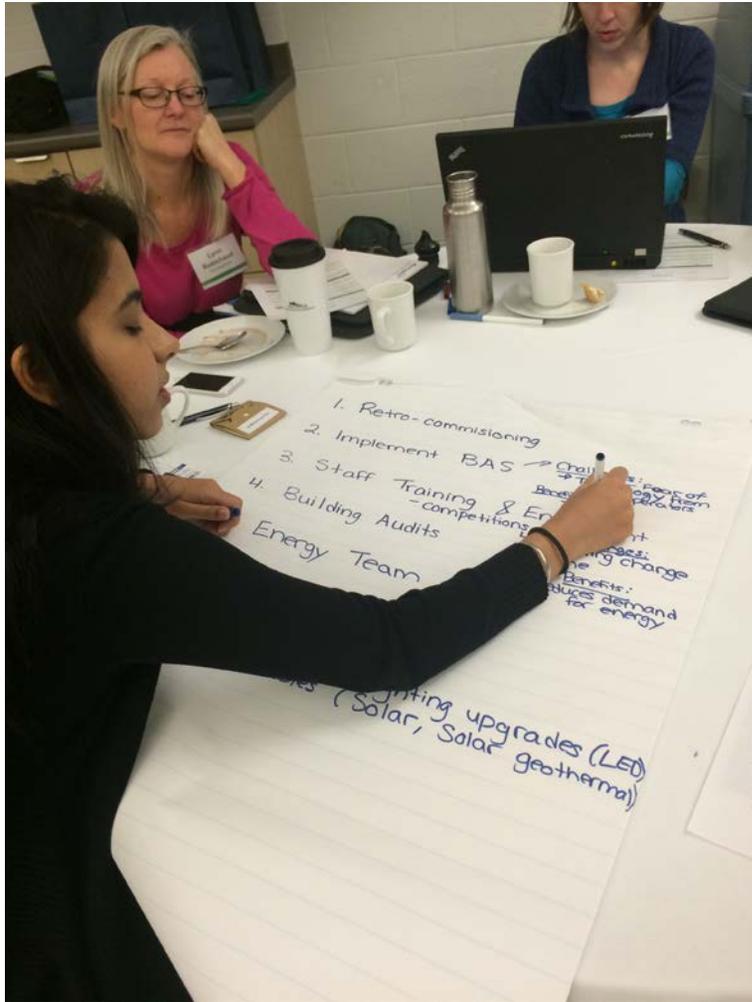
Barrier Group	Identified Barriers	Potential Solutions
Culture Change	<ul style="list-style-type: none"> - Working “to poke holes in silos’ - Resistance to culture change to share CDM responsibilities and innovations - Changing culture to long term thinking - Keeping people/staff motivated to modify behaviour to conserve energy - Staff prioritization - Communication - Knowledge and motivation 	<ul style="list-style-type: none"> - Embed sense of impact <ul style="list-style-type: none"> o Energy costs rising faster than inflation - Senior leadership buy-in (Culture eats strategy for breakfast) - Tie-Back to corporate objectives <ul style="list-style-type: none"> o Strategic/sustainability plan - Setting an example for community
Technology and Innovation	<ul style="list-style-type: none"> - Pace of innovation versus pace of implementation - Prioritization of projects with other facilities management and operational needs 	<ul style="list-style-type: none"> - Need to have clear objective of what you are trying to achieve - Networking with other municipalities & stakeholders - Spread the risk <ul style="list-style-type: none"> o Internal assessments o Assessment of competition o Pilot projects
Energy Literacy and Training	<ul style="list-style-type: none"> - Lack of education/training - Staff doesn’t know that how their actions at work impact energy use - Some (not all) do not understand “life cycle cost” “vis-à-vis” cheap vs efficient - Putting value on environmental benefit - Coordination with all GJ operating 	<p>Training for operators/facility staff/ and chain of information:</p> <ul style="list-style-type: none"> - ½ day courses by Sustainability Managers for: <ul style="list-style-type: none"> o Staff o Building operators Increase literacy - Building operators + facility managers Training - Benchmarking similar buildings against each other: <ul style="list-style-type: none"> o Within the same municipality o Amongst other ‘best in class’ municipal buildings - Incorporate energy and goals into appropriate staff key performance indicators - Increase level of staff involvement: finance, operations, environment staff through lunch and learn training, and outlining clear expectations
Utility Data	<ul style="list-style-type: none"> - The Ministry of Energy’s data submission process is not synced with energy management software 	<ul style="list-style-type: none"> - Implement an energy management system to have all data in “one source” - Communicating/ interpreting data to Senior

	<ul style="list-style-type: none"> - Access to accurate data from utilities - End users do not pay the utility bills (i.e. Finance does) 	<p>Management/Council</p> <ul style="list-style-type: none"> - Build relationships with your energy utilities
Funding	<ul style="list-style-type: none"> - Lack of dedicated funding, or formal process to reinvest savings from other energy projects/retrofits - Reliable funding/budget constraints - Prioritization or capital budget items 	<ul style="list-style-type: none"> - Create business case for long term funding dedicated to energy retrofit capital projects - Methods to create better business cases: <ul style="list-style-type: none"> o Not just simple payback o Life Cycle Costs o Net present value o Measure and verify savings from past projects to justify business case for future projects - Alternative funding e/g incentives, ESCOs - Ensure that when funds are approved for projects, that projects are implemented - Divert a percent of incentives received or energy costs savings or procurement savings into a fund for future projects
Staffing	<ul style="list-style-type: none"> - Lack of dedicated staff - Project management bandwidth/capacity - Work load - Business case for additional staff support - Staff to implement projects - Staff resources - Timing to implement projects as city facilities are always running 	<ul style="list-style-type: none"> - Embedded energy manger funded by utility - Savings on projects used to build capacity for additional staff - Policy statement at a higher level to impact the entire corporation - Personal power and influence strategic objectives (Municipal, provincial, federal)
Corporate and Political Will	<ul style="list-style-type: none"> - Lack of political will - Lack of a concise policy statement - Employee “entitlement” (ie. “Who turned off my Pc screen? That’s my office!”) 	<ul style="list-style-type: none"> - Parts of this was addressed through the Green Energy Act <ul style="list-style-type: none"> o Raised the bar across the Province o Mandatory requirements - Need to be EXPLICIT in reports on energy and GHGe reporting requirements as well as expectations for targets and actions <ul style="list-style-type: none"> o Need to set corporate policy - 2014 provincial policy statement <ul style="list-style-type: none"> o Accounting standards include GHGe as a unmitigated liability <ul style="list-style-type: none"> ▪ Potential future costs

Session Two: CDM Implementation, Phasing and Targets

CDM Plan Actions

Technology Actions		
Action	Challenge	Benefit
Energy Audits	Human capacity/time, quality of energy data, money, support from management to implement the projects	Justification for retrofits, provides the cost/benefit analysis, 3 rd party verified, Facility Operations staff get to know their buildings better
Energy Management Software	High initial cost	Visibility of energy use, and spending trends for Facility Managers and decision makers
Green Building Standards	Doesn't always result in expected savings, could sometimes cost more	Better control over the quality of new buildings, often does result in "better than code" construction.
Scheduling and Controls and continuous commissioning/recommissioning	Fear of technology from operators, education, and energy literacy	Better scheduling, reduced energy use and cost, more automation could save time for Facility Operators
End of Life Upgrades	Awareness of third party labelling, coordinating the effort, premium cost sometimes associated with energy efficient technologies	Opportunity to install more energy efficient equipment that is cost effective through its lifecycle



Non- Technology Actions

Action	Challenge	Benefit
Incorporate Energy Efficiency into Capital Asset Management	Would require true commitment from all Departments and staff	Maximize all potential opportunities for energy efficiency, energy management becomes institutionalized
Incorporate Energy Efficiency into the Purchasing By-law	Would require significant buy in, and a strong business case to warrant the sometimes premium cost associated with more energy efficient products and technologies	Same as above
Staff Education	Difficult to convince staff to accept or 'buy in' to change, time constraints and workloads	Energy use reduction, staff will better understand how their work impacts energy consumption
Dedicated Staff for implementation	Money, available incentives could be difficult to get (i.e. embedded energy manager requires annual energy reduction by 300kW)	Ability to assist facilitating the implementation of the Plan, monitor actions (progress and impacts), ensures the plan is always active and 'front of mind'.
Corporate Energy Team	Capacity of the team to be involved with implementation, if a larger municipality it could be difficult to get representation from all Facilities, could be time intensive.	Consistent approach to energy management and ensure corporate policies are followed, streamline implementation of the Plan, ability to track measures and projects occurring across many departments and buildings.

Monitoring and Verification

- In general, it is a lot more difficult to monitor and measure behavioural change and associated energy use reduction/conservation
 - Technical retrofits are much easier to measure and quantify
- Monitoring and Verification could be done on many levels including:
 - How many projects are done
 - \$ amount of incentives received
 - kWh and m³ reductions
 - Surveys
 - Whole building benchmarking and weather normalization
- There are different standards/examples Municipalities can follow for their monitoring and verification efforts
 - International Performance and Monitoring and Verification Protocol (IPMVP, website)
 - Ontario Power Authority established guidelines
 - Utility assistance (electricity and gas)
 - Surveys (behavioural)
 - Testing
 - Strategy established in the Conservation and Demand Management Guideline created by the Ministry of Energy (note, many Municipalities indicated they would like to exceed these expectations in their reporting)

