



# CAC Community Energy Action Plan and Engagement with Faith-Based Organizations to Plan for Extreme Weather Events

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## MODULE 4: Community Energy Action Plan

CAP has been working with QUEST on an Ontario Energy Community of Practice and have developed various modules:

**Module 1:** General Community Planning 101

**Module 2:** How Community Energy Plans, Regional Electricity Plans, Long-Term Energy Plan and the ISO Municipal engagement can work together; it highlight steps needed to improve alignment between all these policies in order to provide capacity building information needed to guarantee successful plans presented to council and other stakeholders.

**Module 3:** Implementation, lessons learned on plan development, and highlighting key criteria that increase the odds of success in community energy plan implementation.

Feedback from a workshop held—there is a need for a better understanding of Community Energy Plans/Projects in action in order to present it to the council.

**RESULT MODULE 4:** Community Energy Planning 101

*Community Energy Planning is a comprehensive, long-term plan that helps to define community priorities around energy with a view to... Explore how energy is and could be used, generated, and delivered in the community now and into the future.*

There has been a lot of leadership and momentum in regards to Community Energy Plans (CEP)—the province has been funding a lot of plans. **Vaughan, Newmarket, and Markham have plans already in place. Windsor, Durham, and Waterloo are currently working on developing their CEP**

## REASONS FOR COMMUNITY ENERGY PLANS

Key Messages:

- Local benefits
- Need to take advantage of the changing energy market (a market that hasn't change for the past 50 years)

## STEPS TO DEVELOP COMMUNITY ENERGY PLANS

**Energy Inventory:** used to understand how energy is used within various sectors and by what type of energy source.

**Energy Mapping:** used for the benefit of the municipality and stakeholders to identify opportunities for reduction by illustrating where and how energy is used within the community. An increase in community engagement is crucial; especially in terms of stakeholder engagement.

*Issue:* In society, energy is expected from the general public and is not a hot topic for discussion. There needs to be higher energy literacy within communities in order to engage them in the community energy plans. **Stakeholder Engagement is crucial**

**Energy Benchmarking:** a strategic form of data collection that effectively illustrates the energy saving potential between buildings in the municipality. This tool provides a cost effective solution to targeting buildings with the highest energy reduction potential first.

## THERE ARE A LOT OF COMMUNITY ACTION OPTIONS IN WHICH TO CHOOSE FROM

In order to provide a vision for what CEP look like in action, there are several amazing examples to choose from:

- ***The city of Hamilton, Cogeneration at Woodward Wastewater Treatment Plant:*** using the methane biogas from their wastewater treatment plant to generate electricity. They are also purifying the biogas in order to incorporate this renewable natural gas into the natural gas line feeding the municipality.
  - Hamilton also has a District Energy system in the city core. It is used to heat hot water which also used to provide space heating/cooling within its network of buildings. District energy plans can always be expanded to incorporate more buildings—it is easier for new infrastructure to connect to the district energy network. This incremental growth does not place a high upfront capital investment and focuses on where the energy need is based on growth.
  - From these projects, we have access to CEP business case precedents presented and approved by council—Cumulative Energy Savings, Incentives, and Avoided Costs is essential for the council to understand when rising energy costs are inevitable.

- ***City of North Vancouver District Energy System:*** new development that was expanded over time. It initially started with a small-scale combined heat and power plant in order to attract smaller investment funds that have been more assessable than large-scale capital investment opportunities
- ***Calgary, District Energy, ENMAX:*** used the same incremental expansion technique as North Vancouver and Hamilton region.
- ***City of Markham, District Energy System:*** has been expanded as well. It is important to make the politicians note that District Energy Systems are a part of an economic strategy—more businesses are interested in “green” aspects in terms of where they locate their business. One of the deciding factors in which why IMB decided to locate in Markham was because of its district energy system.
- ***City of Guelph District Energy:*** is developing their district energy system (a part of their community energy plan) Sleeman is one of the businesses that recently tapped into its district energy system
- ***False Creek, City of Vancouver, Heat and Recovery District Energy Plant:*** uses waste heat from their sewage system plant to heat the surrounding residential buildings. Stakeholders were incorporated by influencing the design of their steam towers (it looks like a hand) which changes color according to the amount of energy being generated.
- ***Saanich, BC, Heat and Recover District Energy Plant:*** uses the same system as the False Creek Heat and Recovery District Energy Plant
- ***City of Toronto, Deep Lake Water Cooling:*** Cold water is taken from the Lake Ontario depths into the intake pipes which enter the Toronto’s district energy system providing cool air for air conditioning systems within the downtown core. (Air conditioning is one of the most expensive uses of electricity, this cooling system reduces the peak load demand) reducing the cooling load for the Toronto grid will help reduce the overall energy prices, especially during peak energy periods.
- ***Landfill Gas to Electricity:*** Currently, there are several examples—Halton, York, and Guelph. They have been able to generate their own electricity from the natural reoccurring gas found in landfills.
- ***Drakes Landing Community, Okotoks, Alberta:*** an example of a community-based energy plan looks like in action. The community primarily uses solar thermal energy for space cooling/heating and hot water. The result is an overall reduction on the dependency of natural

gas. Another example of how the district energy system was able to reduce the overall dependency on natural gas. There is a challenge to make a business case to transfer our dependency from natural gas to electricity since natural gas is so cheap. These examples are great case studies to learn how we can make this transition possible.

- ***Toronto Regent Park:*** serves to provide energy to the redevelopment of Toronto's reagent park, Toronto Exhibition Place, a new hotel, and the LED street lighting project. Uses a combination of wind turbines and solar PV panels.
- ***Town of Newmarket LEED Platinum Development:*** When the land was sold for development, the condition was to make all the houses within the subdivision LEED certified by developer—the first LEED Platinum Development in Canada. Not only did it aim to reduce overall electricity consumption, but it was also able to reduce overall water consumption.
- ***Toronto, Vaughan, Richmond Hill, Brampton & Halton Hills Green Development Standards:*** a community energy action and has been reported to show significant energy reduction potential
- ***Clarington, Priority Green Home Performance Monitoring:*** performance-based monitoring program that receives information on how efficient Green Homes are in order to provide a base-case (for energy and water use) with which to compare to green homes with actual residents residing within the homes.
- ***Net Zero Ready and Net Zero Housing:*** there has been a lot of research put into developing a business case for developing more Net Zero Ready housing—would an additional investment cost of \$20,000 onto a house, to be considered Net Zero ready, be viable. (There will be a November 8 workshop focused on investigating this topic further).
- ***City of Toronto Home Energy Loan Program:*** Another example of a type of community energy plan. There is a development involving the province, the LICs, and the Green Bank in order to understand how they would all function together.
- ***Towerwise Retrofit Project*** is an example of how the local improvement charges help build the market for energy efficiency. This has helped with the high upfront costs with energy retrofits that have a payback over a longer term with the energy savings. The benefit of supporting energy efficient retrofit uptake within multiunit buildings is the overall improvement of the building directly affecting and increasing tenant contentment—this needs to be acknowledged and implemented when dealing with community housing that still needs to be developed.

- ***The City of Guelph GEERS Program (in development)***: another example of LICs and home retrofits to finance the project
- ***Airdrie, Calgary, Edmonton, Okotoks, and Sherwood Park***—MY HEAT: It uses thermal technology to locate areas within the homes where heat is escaping. This information is useful for homeowners to locate problem areas where more insulation is required. This is a tool to be used in drawing the market toward energy efficiency (saving money in space heating costs—the most costly energy service within the residential sector)
- ***Ils-des-chenes, Manitoba: Community Centre Geothermal***: This community centre used heat-pumps to provide heating and cooling—the fire station, the Town Hall, ice rink, and meeting spaces have been able to get hooked up to this resilience hub.
- ***The Atmospheric Fund: The Heat Pump Business Case***: Creating a business case around heat pumps has been difficult because it is an emerging technology and there has not been a lot of awareness/information on it and the initial upfront cost is very high. The Toronto Atmospheric Fund is currently in the process of gathering information on its efficiency and will be providing municipalities with their results once they receive enough information to do so—their focus is on multi-units that are electrically heated in which the heat pumps would be used in conjunction to improve its efficiency.
- ***City of Markham, Solar PV***: there have been a lot of municipalities implementing Solar PV on their facilities roof-tops, using solar heating, etc. This is fantastic work but the unfortunate part is, is that community members usually do not know the PV systems are installed in the facilities they are using—Markham installed an interactive kiosk in the lobby of their City Hall, and they also have a website, that communicates how much electricity the PV panels have been producing throughout the day.
- ***City of Waterloo, Solar PV***: Another example of a municipality that has installed PV panels on their facilities. The key message to take home from these examples is: how and what are the best ways to spread awareness of the renewable energy being generated within the community to get community members excited about and implement their own PV system.
- ***Toronto Solar City***: highlights and provides best practices to implement new technologies, such as solar thermal and solar walls. They have been able to address the importance of building community support for these new technologies, addressing operational issues, sharing best practices, training, and expertise to encourage other municipalities to follow suit. (Operational training when handling solar thermal is very important to address)

- ***Halifax Solar City:*** Used thermal mapping to illustrate the best areas on buildings to install PV panels according to the amount of solar irradiance hitting rooftops. LICs mechanisms were used to pay for the upfront costs. This is project has been very successful.
- ***Project Sunroof by Google:*** This is not available in Canada yet, but this is something that Google is doing—they are providing a solar thermal map of various states within the U.S. to illustrate the solar potential of rooftops on various buildings in order to promote solar PV nationally. Philadelphia and California have been able to use this resource to create a platform presenting local contractors in order to facilitate the installment of PV systems.
- ***San Francisco's New Requirement:*** San Francisco has been the forerunner in establishing a by-law that requires all new buildings to install Solar Panels. One week later, Santa Monica followed suit—this is the type of movement we are hoping for.
- ***Lethbridge Bio Gas Plant, Alberta:*** Biogas has been used as an alternative energy option within the transportation sector—having a bus run on poop provides for very fun marketing strategy. This is a great project because it provides alternative revenue for rural communities dependent on livestock farming.
- ***Growth Management Policies and Plans:*** are essential as land-use planning, smart growth planning policies, and active transportation plans heavily involve and incorporate energy planning (how the community grows directly affects how the much energy is needed to sustain that growth). Having examples of what these plans consist of and how they have been implemented is fundamental to the successful implementation of all these projects.

There is a process grid available to the municipalities that pin-point's where the jurisdiction is on the Community Energy Journey, based on the different levels of energy-based implementation within its planning framework, and provides next steps in order to continue developing better and smarter energy-efficient projects---This resource will be available at the Community Energy of Practice Hub as well.

**For more information on the Municipal Act and the Consultations for The Green Bank, skip to page 10.**

## Faith and the Common Good Pilot Program

The purpose is to enhance community resilience, focusing on vulnerable people (homeless, elderly, and people/families with financial limitations)

- **Community resilience is a cost effective solution** to bring more awareness and responsibility upon communities to act in an extreme weather events—the government does not have the capacity to assist everyone and therefore cannot be solely reliable.
- Building community resilience **stimulates motivation to act against climate change.**
- Community resilience was exemplified through Hurricane Katarina where the investments in social capital **increased the recovery period.**

### Pilot Program 2015:

Explored Toronto's diverse faith communities in order to establish how they could be better utilized as local service centres.

- **In total 12 centres were considered, representing 6 different religions, and were mapped to be 2 km away from existing community centres. 4 out of the 12 were not accepted in the pilot program.**
- The facilities were subject to site assessments marked out of 10 points, any facility that was graded with 8.5 and above were selected to be a part of the pilot program.

Faith Communities have been considered as local service centres because they already have established places of refuge, they already have a lot of resources available to them:

- There are around 13,000 faith buildings within Toronto that already have committed volunteer base already undertaking outreach opportunities.
- Through previous environmental disasters, it has been noted that faith communities are **the first ones in the disaster zones and the last ones out—there is limited exclusion since they consider all culture a part of their mission.**

*The Pilot Program held and continues to hold events and workshop for training purposes and to develop Action Plans. For each of the 8 faith communities accepted in the Pilot Program, there have been case studies done for each. Additionally, an [Extreme Weather Tool Kit](#) was devised which can be easily adapted to other organizations that do not identify with a faith group.*

- They are able to provide with emotional, spiritual and cultural resources.

## **Lighthouse Program: Brampton Emergency Management Office (BEMO)**

The lighthouse program developed through a York U 2012 study on public education/messaging on the topic on how to prepare and what to do when hit by an extreme weather event. The result highlighted the deficiency in the public engagement strategies as they were not geared to the right audience—the vulnerable populations (The elderly and the lower income families)

- The Ice Storm highlighted the limited resources available to assist the problems presented.

### **A Refocus directed towards community agencies took place= Heat Alert Program**

The Heat Alert program opened the opportunity for the Faith-Based Organizations to open their facilities to act as cooling centres for the vulnerable populations when extreme weather conditions are in effect.

### **Municipal Project Plan:**

**Research:** based on mapping the location of vulnerable populations with a places of worship overlay (20 have been identified in Brampton, 9 are already to join and 11 are waiting to sign the legal agreement)

- There were 16 other facilities interested in participating but they were not located near the vulnerable populations highlighted in the research stage.
- The facilities selected had to be within a 1.5 km radius from another community service centre.

**Relationship Building:** Identification of Faith-Based Organizations willing to participate is necessary. This is an all-inclusive approach; the project makes sure that there is equal representation among religious groups.

**Negotiation:** Legal agreement template developed and completed in order for the FBO to sign and officially participate. The Agreement form was developed by Legal & Risk Management.

- The main legal agreement document has been standardized for all Faith-Based Organizations.
- The Appendices are specific to the FBO participating, it states the detail of collaboration between themselves and the municipality.

**Training:** once the agreements have been signed, volunteer training is expected to start in January 2017.

- Volunteers are required to have police checks and the municipality is responsible for maintaining audits (based on already existing CERV: Community Emergency Response Volunteers Program).

**Marketing:** developed a uniform brand and increase promotion to Brampton population.

- There will be a website made available for more information, the brand logo is used to identify which facility has the capacity to act as a community centre during extreme weather events—the information is planned to be distributed throughout the neighbourhood.

**Export:** At this stage, the project plan has the potential to be incorporated at a provincial and even national level.

**Protocol:**

The development of a **Direct Network of Communication** is key—the municipality is responsible for monitoring the program and making sure that the FBO can easily contact the municipality for assistance in servicing emergency scenarios.

- **The FBO are being equipped to handle 90-95% of emergency problems—this reduces the responsibility of the municipality**
  - The municipality claims they are able to reimburse the agency if they agency provides a service that is not common for them to provide i.e.: providing cups for water stations in extreme heat warnings.

**THE FAITH-BASED ORGANIZATIONS ARE RESPONSIBLE TO:**

- Endorse pre-screening of volunteers
- Place of refuge
- Act as an information centre
- Provide wellness checks
- Provide emotional and spiritual counseling
- Donation management—they are able to receive articles that are necessary for people interested in donating during extreme weather events

**THE MUNICIPALITY IS RESPONSIBLE FOR:**

- Training the volunteers
  - Provide ID cards and signage
  - Provide Liability agreement
  - Provide authoritative information on relief services offered by the city
  - The legal document will be public
  - There is limited funding for this program (Mainly coming from the Operational Budgets) because it is based on the volunteers already available within the FBOs. For the Long-run, the aspiration is to have a Train the Trainer Program.
- } These are a part of the insurance program

An indirect benefit to the FBO is being able to apply for additional third party funding since the facilities considered are a type of community service centre for extreme weather events—eg. The Trillium Fund to **build capacity upgrades which would reduce liability issues.**

## Discussions and Next Steps

There is a module with detailed slides on the case studies stated above in a PowerPoint format—the goal is to facilitate information sharing within municipalities and their respective stakeholders to inspire energy projects that have already been successful all around Canada. **Participants are encouraged to go through the module, choose which ones would be of interest, and then present it to the necessary parties required to cause action.**

### FEEDBACK ON MODULE:

- Visually nesting all the complex information: The Smart Energy Planning topic relates to various levels of understanding (growth management, changes in provincial policy, understanding the basics of biogas technology).
  - This visualization would be helpful for municipalities to see how things enter into the bigger picture of climate change adaptation and mitigation action—where would be the policy and operational entry points in the overall plan.
- It would be important to highlight the hierarchy of policies already in place, starting off with the policies set in place by the COP21 Paris Climate Conference, federal policy, provincial policy, then municipal policy—**THERE IS SUPPORT FOR THE ENVIRONMENT, now is the time to push ground-up change.**
- Strengthen the component on **Community Resilience within Community Energy and Action**—this is a new message that needs to be emphasized within the municipal network.
- **Growth Limitation Factor** is another term that would be beneficial to use when communicating with political representatives and senior representatives essential to the decision-making process.

### JOINT ACTIONS & ROUNDTABLE:

Toronto Environment and Energy division have developed a back-up power plan for multiunit and residential housing which would be relevant to energy plans—this will be added to the resources for this meeting and the Energy Community of Practice as well.

At the Clean Air Council Summit of last year, a focus group discussed what **political representatives would be interested in when promoting Climate Action.** The feedback that came out of the subsequent interviews with the political representatives was:

- They were not interested in any implementation or policy development\*\*\*
- They would like to choose what they felt was particularly important and then play more of an advocacy role.
  - This is what makes the most sense, out of the consultations, CAC has been able to gather a list of 12-14 policies, three of which were chosen and then promoted within these political groups to push at the provincial level.
- The political representatives were interested in the position AMO has in Climate Action Planning—AMO has more influence and credibility to push the Municipal Leaders for Climate Action. AMO has been interested in the project but they have continuously delayed the launch

of the project from May to now November at the AMO Symposium that has been opened up to accept municipal representatives.

- CAC will have a more proactive approach once AMO launches the Municipal Leaders for Climate Action.
- AMO needs to work on communicating their Symposium more since there were several municipalities that were not aware of this meeting.
- The concern over this project is that municipal members will have a bigger workload if the politicians decide they would require a lot of staff time to promote the policies—this would pull away from the overall work municipal members would have to do to continue working on the policies.
  - The solution would be for the Clean Air Partnership to work closely with the politicians and have them at arm’s length of the Clean Air Council.

Plan: Wait to see what happens at the AMO meeting to see what their position is on the Municipal Leader for Climate Action and then decide what the appropriate next steps would be.

## CLIMATE CHANGE ACTION PLAN DISCUSSION

Ever since the province has released the Climate Change Action Plan, there hasn’t been any municipal discussions around the policies set in place.

- **Land-use Planning (pg.32): 1.1.2 Set green development standards:** A need to stress on the clarification on municipal policy implementation in order to establish what authority municipalities have in green development standards, especially when the finance and legal department are involved.
- **Municipal Building codes:** would be very important to talk about because most of the policies in place have building code policy ceilings, which restrict municipalities from using higher standards not mentioned. Conversations need to switch from policy ceilings to a floor-style policy in order to promote more advancement/innovation within more efficient infrastructure strategies. The market should not be analyzed at a provincial/regional level but at a more precise localized municipal-based level.
  - Green development standards are not limited to energy or building envelopes—they also incorporate the management of the site, the location and growth management.
- **Action Items from the last Green Development Workshop:** To develop a *Terms of Reference* on Green Development Community of Action to present to council and gain their approval—this plan would be useful for municipalities that do not have the authority to start developing Green Development Standards.

Municipal Act is going to be released soon. Representatives from Municipal Affairs will be invited to talk at a CAC meeting in order for municipalities to respond to the Act.

- This Action Item is delayed because CAC has been focused on working with the province to increase clarity on what municipalities have authority mandating, which will hopefully be a part of the Municipal Act.
- ❖ Something to consider: In addition to the Terms of Reference, it would be useful for municipalities to have a **Minimum Performance Requirement**: Highlights mandatory municipal attributes not be up for negotiation. (There are municipalities that already have minimum performance requirements to meet greenhouse gas reductions. Yes, we are almost at a tipping point that would make the province allow municipalities to have the authority to change restrictive policy requirements)
- ❖ Municipalities need to establish their priorities and the significance of those priorities within their jurisdiction—the goal is to establish a balance between flexibility (so local priorities could be adhered to) and consistency (development community wants).

### Halton Hills Input:

**Halton Hills has a Minimum Performance requirement:** The result was the development of a point system based on three checklists—dependent on the types of development. The developers can choose from the checklist in order to meet the minimum required points. The checklists include categories involving energy conservation, water conservation/quality, landscaping and design, air quality, innovation and other green features that they would like to suggest.

- This was well received from the development sector because they were involved from the beginning, their inputs were incorporated, and they have ample choice using the point-system tool.
- 2014 study—outlines the process the town had undergone to establish the Green Development Standard. **This resource can be distributed**

**This is an example of one of the many success stories. THERE IS A CONSENSUS WITHIN MUNICIPALITIES THAT BUILDING CODES SHOULD BE CONSIDERED A FLOOR AND THAT MUNICIPALITIES SHOULD HAVE THE AUTHORITY TO DEVELOPE THEIR GREEN DEVELOPMENT STANDARDS—THE PROVINCE SHOULD MAKE THIS POWER CLEARER.**

**Land-use Planning (pg. 82): “ Legislative Amendments For Municipalities To Regulate Green Standards: consider amendment to the Municipal Act and City of Toronto Act to enable municipalities across the province to require green standards or technologies to reduce building emissions where relevant technical standards exist in the Building Code but are not mandatory”**

The province is *contemplating* opening up the building code process to allow municipalities to go beyond existing standards in the building code. **THIS IS THE CRACK IN THE DOOR FOR MUNICIPALITIES TO BE ABLE TO GO BEYOND BUILDING CODE.** This action has not been rejected from the plan; it was not featured in the current Climate Change Action Plan. **THEREFORE, THIS NEEDS TO BE ADVOCATED FOR THE INITIAL FEATURE OF THE MUNICIPAL ACT REVIEW!**

#### **CAC ADAPTATION WORK:**

The province has accepted to update their Climate Ready Plan for 2017; they are in the process of developing and taking consultations for their Adaptation Plan—representatives will be asked to come in for a CAC meeting to discuss their consultations and their Plan.

- Separate consultations/teleconferences will be done by CAC to ensure a common message to the Province, which will hopefully be implemented in the regional adaptation plan ( we need to start generating a list or a plan of potential “Asks” to make sure clear message is understood)
- A focus on capacity building is the entry point to get more support from the provincial level. (***Climate change will be very resource intensive—no one is sure how the resources will be implemented/distributed—municipalities will be able to provide essential guidance***).

\*\*\*\*At the federal and provincial level, they are able to work with sectors that municipalities rely on but are not able to influence (TELECOM, natural gas line, and railways). This also needs to be kept in mind when developing the “asks” in the provincial consultations\*\*\*\*

**The Green Bank (pg. 17):** will work together with the local improvement charges and home energy retrofits. At this point, it seems that the Green Bank is focused on residential and commercial building retrofits. There has been an interest in recommendations on how LICs would be incorporated. CAC and the City of Toronto have been suggesting:

- For the need of a loan reserve for the unlikely case of default associated with LICs to help create confidence at the municipal level—decrease the financial liability risk and increase support from municipal financial/political departments.
- Develop a Third Party Centralization for Intake (A one-stop-shop of resources, especially marketing—not in the capacity for municipalities to cover). It would act as a balance between

quality insurance when opening up the market. California, Vermont, and New York are great examples to consider.

- ❖ Suggestion: It would be useful if the province would consider an equity lens—People -centred design (Bottom-up approach)—in order to highlight the benefits and drawbacks of how the bank can be used to deliver the desired outcome for the PEOPLE. i.e.: impacts of increased energy prices; many people will view this negatively as a result of the Cap and Trade System as vulnerable populations will be the most negatively affected.

**The Goal of the Green Bank** is to reduce people’s vulnerability to carbon price increases. The funds taken from the Cap and Trade system are planned to be reinvested in investments geared towards reducing carbon emissions in order to move the market away from Carbon intensive practices (the de-carbonization of the market).

The issue of concern: The bank is focused on energy conservation and will experience some difficulties in trying to convince people, organizations and institutions to switch from a cheap natural gas into expensive electricity—the multiuse residential sector would be a key market for them to consider.

The Green Bank can be used in alignment with the Long-Term Community Energy Plans municipalities have in place which may already have LICs incorporated into them. **IT IS IMPORTANT TO BE AWARE THAT PLANS CONCERNING THE GREEN BANK TO NOT GO AGAINST OR OVERLAP WITH THE MOVEMENTS ALREADY SET IN PLACE WITHIN MUNICIPALITIES THAT HAVE A STRONG LONG-TERM ENERGY PLANS.**

**Should we have a day meeting—in person—to go through all these discussions; this would be the easiest way to get the most information in a short period of time vs. separate one-on-one webinars?**

YES! This would be a good idea to go beyond scratching the surface of these topics. We will all be better informed and bounce off ideas from each other needed to inform the province of our recommendations.

The only municipality that was represented in the last-minute consultation was the City of Toronto.

A teleconference will be held before the in-person meeting.

## **THE ROUND-TABLE**

Durham region has an approved, in principle, a comprehensive **COMMUNITY ADAPTATION PLAN** against Climate Change and will be presented to the region for approval on December 9<sup>th</sup>, 2016. There are 18 programs that Durham region developed with municipal actors that would create security in the event of extreme weather/environmental conditions forecasted within the region—this Adaptation plan will be distributed among the municipalities as a resource.

Question by Halton Hills: Has any municipality explored the use of **SCENARIO BASED PLANNING as a tool for adaptation planning?**

Scenario Based Planning incorporates a vulnerability assessment, risk assessment and an appropriate plan based on the vulnerabilities and risk.

Durham: did use a study to determine one climate trend for the region of Durham from the years ranging from 2040-2049. From the information provided, a planning target and a proposed risk analysis developed the 18 programs to address the high and medium risks from the one climate trend used across Durham region.

- ❖ It is important to note; the more climate trend scenarios used, the potential for misunderstanding and confusion among council and politicians increases and therefore threatens the possible acceptance of the adaptation plan.

Peel Region: worked with the TRCA to develop a natural systems vulnerability assessment using modeled projections of what the climate trend models and monitored data forecast for the year 2050. The natural systems analysis included the loss natural systems' service and their subsequent impacts—this information illustrates a compelling story about the importance of developing adaptation plans alongside the mitigation plans. It is very dense and can be difficult to communicate, but is a crucial REFERENCE POINT for adaptation work. This report has not been published as of yet but will soon be.

OAKVILLE, PEEL, TORONTO, AND DURHAM have, or are in the process of, developing their own adaptation Plans. If there is interest in the area, please contact Gabby and she will connect you!