



**2013 COMMUNITY EXCELLENCE AWARDS
Category Worksheet**

**LEADERSHIP & INNOVATION
Climate Action**

Name of Local Government: The Corporation of the District of North Cowichan

Project/Program Title: The Corporation of the District of North Cowichan Climate Action and Energy Plan

Project Summary Paragraph

Please provide a summary of your project/program in 150 words or less

The Climate Action and Energy Plan (CAEP) for North Cowichan provides strategic direction and an economic framework for both the Municipality and the community, building a strong partnership to address climate change. Residents identified a need for climate action during the creation of the 2011 Official Community Plan (OCP) resulting in a proposed 33% reduction in emissions by 2020. The CAEP led to the creation of an integrated mitigation and adaptation plan, one of the first in BC, and one that involved many innovative forms of community engagement. As a result of the CAEP, the OCP target was modified to a 33% reduction by 2025 and an 80% reduction by 2050. The CAEP recommended the creation of a revolving fund for climate action initiatives and this was supported by a separate 0.5% increase to the property tax levy adopted in 2013 with encouraging public support.

Project Analysis

Please answer the question in 300 words or less in 11 pt Arial font (our judges value directness and brevity). If you experience difficulty answering a particular question, consider the aspects of your program that may relate to the question and show us how they are linked.

Remember to include measurable results whenever possible.

1. CLIMATE

Please describe how the program/project contributes to the achievement of one or more of your [Climate Action Charter](#) goals

i. Corporate carbon neutrality:

The CAEP is leading North Cowichan to corporate carbon neutrality. It has provided strategic direction toward the creation of carbon reduction projects and has led to a new source of funding with the support of Council and the community.

As recommended during the CAEP process, the Municipality has implemented corporate carbon reduction projects, including organic waste diversion (2012) and forest carbon sequestration via avoided deforestation and parkland creation (2013), and is expected to claim carbon neutrality in 2013 with the successful completion of these projects.

The CAEP recommended that North Cowichan perform energy audits on its twelve major facilities. As of July 2013 North Cowichan has secured funding and commissioned energy audits for the Cowichan Aquatic Centre and Fuller Lake Arena, its two most energy intensive facilities.

The CAEP also recommended that North Cowichan track GHG emissions of municipal buildings using the US Environmental Protection Agency's Energy Star Portfolio Manager. Portfolio Manager is now in active use.

One of the recommendations of the CAEP was that the Municipality phase out natural gas use in municipal facilities. Towards this funding was approved in the 2013 budget for a study of renewable heat sources for the Cowichan Aquatic Centre.

The CAEP recommended the creation of a revolving loan fund for climate action projects through a 1% increase in property taxes. On April 13, 2013, Council supported CAEP implementation with the creation of a Climate Action Reserve Fund by increasing the property tax levy 0.5% to create the fund, one of the first such taxes in Canada. With these funds in place, Council supported the creation of a corporate energy management plan, complete with a three year budget for energy efficiency improvements.

ii. Using your community energy and emissions inventory:

North Cowichan's CAEP utilizes the British Columbia Community and Energy Emissions Inventory (CEEI), but goes beyond it to establish a more accurate picture of GHG emissions.

The CAEP utilizes GHGProof, an open source model used by more than twenty communities in BC, to undertake the analysis. The model is calibrated against the Community Energy and Emissions Inventory (CEEI) but goes beyond the CEEI to include emissions from solid and liquid waste, agricultural production, transportation of food and forest sequestration.

The OCP target of 33% emissions reduction over 2007 levels by 2020 was modified by the results of the CAEP scenario model to 33% by 2025 and 80% by 2050. The recommendations contained in the CAEP are designed to achieve these targets.

As the Province updates the CEEI, the CAEP model will be updated and calibrated to ensure that the Municipality and community are on track to achieve the targeted reductions.

iii. Creating complete, compact, energy efficient rural and urban communities:

The scenarios modeled in the CAEP analyzed three future land-use and development scenarios. It is anticipated that future Official Community Plans (OCPs) will be guided by CAEP directives to create higher densities in the urban cores.

The OCP identifies three urban containment boundaries located around historical growth nodes. These areas contain community water and sewer services and it is within these areas that the highest densities are envisioned. The OCP does not encourage increased density in the rural areas beyond what is permitted under current zoning. The CAEP recommends further refinement of OCP policies and related regulations to encourage increased density in these areas. In order to ensure that these envisioned densities are met, Local Area Plans are underway in two of the growth centres and will provide a finer

grain of analysis relative to appropriate density thresholds, mix of building type, and building height. A third Local Area Plan was previously completed.

Also in support of the CAEP densities, a tax exemption bylaw was adopted in June 2013 that provides a property tax exemption for new development in urban areas with a density of greater than 100 dwelling units per hectare. This bylaw also includes development cost charge exemptions for mixed-use developments and a property tax exemption for industrial improvements that reduce greenhouse gas emissions by 25%.

2. PROCESS

Please provide a brief outline of the steps involved in the program/project and the status of each step.

The development of the CAEP involved extensive online and in-person community engagement as well as collaboration with Council's Climate Change Advisory Committee (CCAC) and a Strategic Advisory Group of staff.

The first major community event engaged small groups to identify existing green economy assets in North Cowichan on large scale maps. The information on these maps was subsequently transferred onto an online platform called CrowdMap, which allowed people to continue to contribute. Hundreds of businesses, renewable energy installations and other locations or organisations were identified, a foundation on which the plan was constructed.

The second major event was online, involving an innovative crowd-sourcing platform called IdeaScale which enabled community participants to contribute, comment and vote on almost 200 ideas.

Finally, a community "Wedges Workshop" enabled participants to explore targets using triangular wedges scaled according to the size of the reduction they represented. Participants debated which wedges to use according to their social, ecological and economic values and combined the wedges to identify a recommended GHG reduction target for the community. The community engagement recommendations informed the CAEP (CAEP p. 43-44). The CAEP was adopted by Council and subsequent implementation actions have also been adopted by Council.

North Cowichan adopted a logo which celebrates the path forward in addressing climate change, *communityforclimate*. On June 8, 2013 Council's Climate Change Advisory Committee (CCAC) organized a highly successful *communityforclimate* Fair to celebrate the adoption of the Plan and to support the community in the transition to a low carbon lifestyle. The fair was well received by community members and fully funded by community partners with a mutual interest in addressing climate change. It included a well-attended presentation on the CAEP, lunch, exhibits, and activities hosted by groups working to promote a low carbon lifestyle whilst building community resiliency.

3. RESULTS

Tell us how your submission addresses climate change issues in terms of reduced GHG emissions and /or supports your community to prepare for the impacts of climate change.

The plan contains specific targets and recommendations to achieve GHG emissions reductions of 33% over 2007 levels by 2030 and an 80% reduction by 2050.

The process of developing the CAEP significantly elevated the importance of reducing GHG emissions and preparing for the impacts of climate change in the community through the engagement process; Council's adoption of the CAEP, the subsequent discussion over an increased tax rate to finance climate action, and the **communityforclimate** Fair. When a telephone survey was conducted to gauge support for a 1% increase in taxes, an encouraging show of support from the public was received.

The CAEP itself provides a detailed step-by-step path to achieve significant GHG emissions reduction in North Cowichan. A unique and critical aspect of the CAEP is that it identifies the economic benefits of GHG mitigation efforts. The CAEP more easily garnered public and political support because the economic benefits were so clearly identified.

The CAEP also contains a comprehensive set of recommendations relative to climate change adaptation, in order to support North Cowichan in its preparations for the impacts of climate change.

4. LEADERSHIP

How does the project reflect leadership and excellence in the advancement of climate action?

North Cowichan engaged Sustainability Solutions Group (SSG), a federally incorporated Workers Cooperative. In their words, SSG have stated, "The resulting plan is robust and implementable with major new directions for North Cowichan that are ambitious but manageable, making the Municipality a leader in climate change, and energy and emissions planning."

By engaging the efforts of a dedicated group of volunteer members and associates on the Committee, North Cowichan is leading a path forward whereby community members have taken ownership of the CAEP and are instrumental in its implementation.

The consultation model SSG employed highlighted the importance of full community engagement; the process engaged residents, staff, and Council in workshops, open houses, and online through an IdeaScale website where participants posted ideas, engaged in discussion, and voted. A feedback loop during the final stages of the process further showed leadership in valuing North Cowichan residents' involvement. North Cowichan staff and Council recognise the community as a resource and partner.

Council demonstrated leadership in support of CAEP implementation with the approval of a 0.5% increase in the property tax levy to create a Climate Action Reserve Fund, one of the first such taxes in Canada.

North Cowichan hosted and collaborated with common interest groups and other local governments to provide a fun, family friendly, educational afternoon for the community at the highly successful **communityforclimate** Fair. During the fair, North Cowichan launched the Climate Action and Energy Plan with a well-attended presentation to community members.

5. ECONOMICS

a. How was the project a good use of budget and resources?

By developing a strong plan that addresses both mitigation and adaptation, North Cowichan has positioned itself as a leader in climate action and is poised to reap the benefits of both outside investment and community innovation as it addresses a significant challenge to human civilization. These benefits would not be achievable without the budget and resources of the Plan.

A significant portion of the CAEP cost was met by a grant from BC Hydro. By leveraging BC Hydro funding the taxpayer contribution was reduced. The implementation of the plan will be seeded by the Climate Action Reserve Fund created with the 0.5% tax increase as it leverages further grant funding. The **communityforclimate** Fair was fully funded by community partners with a mutual interest in climate action.

By creating a plan with broad public engagement and support conditions were created for the community to show encouraging support for a tax increase to fund ongoing climate action initiatives. This made the CAEP an outstanding use of budget and resources because it led ultimately to the creation of an ongoing fund for its implementation.

By implementing this Plan, North Cowichan will reduce energy costs, create new jobs and reduce climate change impacts on future generations. These benefits would not be readily accessible to the community without the budget and resources employed in the creation of the Plan.

By 2050, it is estimated that there will be 613 annual jobs created (see pages 76-77 of the CAEP for a breakdown). This stimulation to the local economy is one of the unique aspects of the Plan. By creating a low carbon economic development strategy the CAEP further leverages the budget and resources that went into its creation.

b. How does the project encourage economic sustainability? (e.g. life cycle analysis, internalizing costs and alternative financing, economic instruments)

The CAEP encourages economic sustainability by creating more jobs in the community, by creating an expanding fund to finance its recommendations, and by encouraging greater density in the community instead of further dispersed settlement. By encouraging economic development in a sustainable framework the community will continue to prosper in the face of changing economic conditions and further climate change.

The 0.5% tax increase to create the Climate Action Reserve Fund created a source of funds that enabled Council to adopt a corporate energy management plan with a three year budget for energy efficiency improvements. The Reserve Fund is intended to be self-sustaining as a portion of the avoided energy costs from projects are reinvested in it.

The CAEP's economic model shows that a 'dense' development scenario would cost 25% less to build, would cost less to operate and maintain, and would cost 55% less for water and wastewater than in the 'dispersed' scenario'. Similar savings were also found for road construction, transit costs and recreation centres.

The net primary value of each strategy is calculated and presented as a Marginal Abatement Curve (p. 78-79) which illustrates the present cost or savings per tonne of GHG emissions reduced and the extent of the GHG reductions possible from each strategy. This type of analysis helps to prioritize efforts using an economic lens. An additional analysis was undertaken to demonstrate the economic value of GHG reductions from a societal perspective using the EPA's Social Cost of Carbon method. Depending on the discounting

rate used, the value of the emissions reduction in mitigated climate damage is between \$2 and \$25 million (p. 80-82).

6. ENGAGEMENT

How does the project encourage engagement? (e.g. stakeholder engagement, public participation, equity and diversity, knowledge sharing, capacity building, community identity and marketing)

More than 400 people participated in the CAEP's development, including Council's Climate Change Advisory Committee, a municipal staff advisory group, and community members via public consultation events and online engagement strategies. The CAEP's development has been a transparent and collaborative process with community consultation and input highly valued. In the early stages of the Plan the Municipality hosted public input events, an online IdeaScale idea forum, and a wedges workshop.

The CAEP's development involved extensive internal collaboration with multiple departments of North Cowichan staff. A Strategic Advisory Group of senior staff with members from each department was convened to provide high-level input into the plan at each stage of its development. The draft corporate plan was presented to Operations staff to ensure all perspectives were incorporated into the final document.

The Municipality hosted a highly successful **communityforclimate** Fair to launch the plan. It was well received by community members and fully funded by community partners with a mutual interest in addressing climate change issues. Partners included, among others; BC Hydro, BC Transit, Vancouver Island Regional Library, Chemainus High School Green Team, Cowichan Valley Regional District, The City of Duncan, Catalyst Paper, Transition Cowichan, Island Farms, and Cowichan Green Community.

A GHGProof training session was hosted by North Cowichan May 31, 2013 and included participation from adjacent local government staff (CVRD, Duncan, and Ladysmith). The session gave participants an opportunity to create future scenarios using the open source modelling tool that forms the basis of the CAEP and will be utilized for ongoing monitoring of strategies.

On July 25, 2013 CCAC members, elected officials, and staff participated in a workshop towards the creation of an implementation framework for the CAEP. This implementation framework will be presented to Council for adoption.

7. INNOVATION

What makes your program/project innovative?

One of the Plan recommendations was to establish a Climate Action Reserve Fund, a mechanism to facilitate the development of innovative sustainability projects including energy retrofits of Municipal buildings or to establish renewable energy projects. The savings generated by these projects will flow back into the fund so that it can continue to finance future projects. Council adopted a bylaw to collect a 0.5% property tax levy that would generate over \$112,000 in the first year and grow as a revolving loan fund to be used to retrofit buildings and infrastructure. This is one of the first examples of such a fund being created from property tax revenue in Canada.

The CAEP is one of the first plans in Canada to use a Marginal Abatement Curve to depict the cost or savings per tonne of GHG emissions reduced by each strategy (investment or net financial savings). It is also one of the first in Canada to use an analysis of the Social

Cost of Carbon to capture additional benefits including employment, reduced air pollution, health benefits, and quality of life improvements.

A number of citizen-led organizations were actively encouraged to participate in the implementation phase of the CAEP, including the local chapter of Transition Cowichan and the Cowichan Carbon Busters. It is this type of community participation that is regarded as critical to the success of implementation. The CAEP envisioned and opened the door to this wider community participation in its implementation.

“The beauty of this plan and perhaps its unique contribution to the field is that even those who are not committed to mitigating climate change can support the plan for solid economic reasons.” - North Cowichan Mayor Jon Lefebure

8. TRANSFERABILITY

How is this program/project transferable to other local governments?

The CAEP initiative could be replicated in whole or in part by other municipal governments across Canada. The review of Official Community Plan and Provincial GHG reduction targets, the community GHG inventory and scenario modelling, the public and stakeholder engagement process, the plan recommendations, and the **communityforclimate** Fair are all attainable actions for any municipality to undertake.

North Cowichan, with the development and implementation of the CAEP, is a leader in sustainability and energy, paving the way for other communities through the innovative solutions it continues to pursue. The CAEP is available to the public online and provides a library of data, innovative ideas and strategies, case studies, and other applicable resources to draw on.

9. KNOWLEDGE SHARING

What helpful advice would you share with other communities looking to embark on a similar project?

Organizations looking to embark on a similar project may wish to:

Look for grant funding from BC Hydro and the Federation of Canadian Municipalities (FCM).

Look for community partners with a mutual interest in climate action and start to build relationships and begin to assess the issues and actions most relevant to your community.

Speak to communities with plans such as North Cowichan’s CAEP, and with consultants such as SSG who possess expertise in climate action planning in order to learn the steps involved in the creation of such a plan.

10. TELL US MORE

Please share any other information you think may help us better understand your submission.

As a recognized leader in sustainability and energy, Mayor Jon Lefebure has been invited to share views on energy efficiency in the community at the 2013 BC Hydro Power Smart Forum (*Political Leadership and Energy Efficiency in Communities*) in October. Mayor Jon Lefebure will be featured at the session to discuss the important work being accomplished between BC Hydro and North Cowichan. North Cowichan will be in the spotlight for its innovative initiatives occurring at the community level.

Some recent initiatives undertaken in harmony with the CAEP recommendations:

A corporate energy management staff responsibility was assigned and BC Hydro funding secured. An Official Community Plan (OCP) benchmarking, monitoring and implementation framework has been developed and the CAEP monitoring framework is being designed to integrate with the OCP frameworks.

“We are now developing the implementation plan that will reduce energy use and greenhouse gas emissions, save our citizens significantly on their household energy costs, and create new jobs in the green economy. Recognition of the CAEP will raise the profile of our efforts, reward our combined work to date, and encourage other communities to follow our lead.” - Mayor Jon Lefebure

The Corporation of the District of North Cowichan Climate Action and Energy Plan can be downloaded for viewing at: www.northcowichan.ca/CAEP

Thank you for your consideration of the Corporation of the District of North Cowichan Climate Action and Energy Plan. Please contact Peter Nilsen, Assistant Municipal Engineer (Environment and Energy) if you require any clarification regarding this submission.

Excellence in climate action may include, but is not limited to the following types of actions:

Corporate Operations (Mitigation)

- Energy efficient retrofits
- Fuel switching
- District energy for civic buildings
- Employee awareness building
- Corporate energy plans

Community Wide Action (Mitigation)

- Density zoning
- Developing trail networks
- Improving/expanding transit options
- Community energy plans
- Rebate programs for energy efficient home appliances

Adaptation

- Adaptation scenarios or visualizations
- RGS or OCP adaptation policies
- Vulnerability and risk analysis
- Tree master plan or tree protection bylaws
- Storm water management bylaw referencing water balance model