



City of  
Campbell  
River

# Community Energy & Emissions Plan

revised October 2016



## CONTEXT AND ACKNOWLEDGEMENTS

The CEEP (2016) was created out of the implementation strategy developed by the *Community Energy Planning: Getting to Implementation in Canada* Pilot Communities Initiative. The implementation strategy provides a pathway to support the implementation of the CEEP by providing recommendations on:

1. The community energy and greenhouse gas (GHG) emission reduction target
2. Monitoring and reporting on CEEP implementation progress
3. Prioritizing the actions in the CEEP
4. Embedding the CEEP into the plans and processes of the City of Campbell River
5. Providing strategies for engaging community stakeholders on CEEP implementation

It has been developed in collaboration by the City of Campbell River staff, the CEEP Steering Committee and the *Community Energy Planning: Getting to Implementation in Canada (GTI)* project team. It has been informed by the strategies identified in the *GTI Community Energy Implementation Framework*.

### THE CITY OF CAMPBELL RIVER STAFF OVERSEEING THE CEEP INCLUDES:

- Chris Osborne, Senior Planner
- Cassandra Smith, Climate and Energy Specialist (co-op)
- Marianne Wade, Acting Community Planning & Development Services Manager
- Amber Zirnhelt, Community Planning & Development Services Manager
- Staff from the City of Campbell River were also engaged in one-on-one meetings. The notes from staff meetings are summarized in Appendix VI.

### THE CEEP STEERING COMMITTEE INCLUDES:

- Councillor Marlene Wright (Chair)
- Dana Bjorgfjord, Owner, D. Borgfjord Contracting Ltd
- Joe Ciarniello, Energy Manager, Vancouver Island Health Authority
- Sidney Demuth, Campbell River Youth Action Committee
- Melissa Heidema, Transportation Specialist, City of Campbell River
- Steve Woods, Manager of Operations, School District No. 72
- Stacey Larsen, Community Advisor, Fisheries and Oceans Canada
- Jack Worsley, Campbell River Youth Action Committee

### THE GTI TEAM INCLUDES:

- Peter Robinson, Chief Technology Officer, Community Energy Association
- Sarah Marchionda, Manager, Research & Strategic Initiatives, QUEST
- Dale Littlejohn, Executive Director, QUEST
- Patricia Bell, Head of Planning and Director of Education, Community Energy Association
- Brent Gilmour, Executive Director, QUEST
- Richard Laszlo, Director, Research & Strategic Initiatives, QUEST
- Tonja Leach, Director, Communications and National Affairs, QUEST



Figure 1. The Getting to Implementation Pilot Project

## EXECUTIVE SUMMARY

The revised Community Energy and Emissions Plan (CEEP) was developed from the City's first CEEP (2011), which was created in conjunction with the Mater Transportation Plan and Official Community Plan as a part of Campbell River's integrated community sustainability planning process. The CEEP (2011) was designed to meet the City's legislative requirements for the Official Community Plan *greenhouse gas targets, policies and actions*. The CEEP will also help to achieve the commitment to have a *complete, compact, more energy efficient community* made in the City's Climate Action Charter.

Campbell River's current energy dependence makes the community vulnerable to energy price changes. Approximately \$110 million<sup>1</sup> is spent annually on energy in Campbell River. Further reducing energy consumption in Campbell River would lessen this significant cost to the community and increase energy security, while encouraging funds to remain within the community. This would help make Campbell River a more economically viable and livable community.

Between its inception in 2011 and its revision in 2016, some action items in Plan were achieved, others were in progress, and some were not yet started. While the City of Campbell River made strides in energy and emissions reductions, CEEP implementation was sporadic. In October 2015, the City of Campbell River was selected as one of three communities across Canada to participate in the Getting to Implementation (GTI) pilot initiative. This program aimed to help communities with the implementation of their CEEPs (or equivalent) and learn about the struggles that communities face when attempting to carry out their plans so that a program could be developed to improve community implementation. As a result of participating in the GTI project, the City received free advising hours from the GTI team and the thorough Implementation Strategy that is included in this revised CEEP was created by the GTI team. The Implementation Strategy was informed by the CEEP Steering Committee, City staff from a variety of departments, and the expert knowledge of the GTI advisors. The revised CEEP was developed alongside the review of the Official Community Plan (2016) and the Urban Forest Management Plan (2016).

The City of Campbell River's revised CEEP provides the path for reductions of energy and emissions and a resilient and healthy community. The CEEP goals can be achieved through a combination of increased energy efficiency, conservation and utilizing alternative and low carbon energy sources. Implementing the various action items identified in the Plan means mitigating risks posed by climate change and fluctuating energy prices. By lessening our dependence on energy, Campbell River will increase our energy security by reducing our exposure to energy price volatility. Furthermore, reducing emissions and pollution and encouraging low-emissions transportation will promote healthier living and reduced ecological risk.

The revised CEEP provides Campbell River with an updated strategy for becoming a low-carbon community that continues to be a leader in energy efficiency and emission reductions. It allows us to achieve our legislative requirements in our Official Community Plan, and to follow through on Climate Action Charter commitments. The CEEP will continue to provide direction in City planning processes and for the broader community.



Figure 2. A few of the 14 members of the CEEP Steering Committee

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<sup>1</sup> Figure provided by the Getting to Implementation project – based on the Province of BC Community Energy and Emissions Inventory (CEEI) and local energy data.

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## AN INTRODUCTION TO COMMUNITY ENERGY AND EMISSIONS PLANNING IN THE CITY OF CAMPBELL RIVER

### WHAT IS A COMMUNITY ENERGY & EMISSIONS PLAN?

A CEEP is a plan that helps define community priorities around energy with an aim to:

- Cut greenhouse gas (GHG) emissions<sup>2</sup>
- Improve community-wide energy efficiency
- Driving local economic development
- Managing future risks and enhancing resilience across the community

A CEEP usually encompasses building and site planning, renewable energy supply, land use and transportation planning, and infrastructure (including solid and liquid waste management). It provides guidance to a local government in long-term decision making processes.

Transportation continues to be the fastest growing source of GHGs at the local level, while buildings continue to be the largest users of energy, especially for domestic hot water and space heating (representing 60 percent of energy end use in buildings). Most GHG emissions within a local government's jurisdiction result from energy consumption and the burning of fossil fuels.

Provincial legislation adopted in 2007 calls for reducing the province's GHG emissions by at least 33 percent below 2007 levels by 2020, and by 80 percent below 2007 levels by 2050.

### COMMUNITY VERSUS CORPORATE ENERGY AND EMISSIONS PLANNING

Sometimes there can be confusion between *community* and *corporate* energy and emissions planning. A CEEP primarily aims to reduce *community* energy consumption & emissions.

**Community** energy planning focuses on actions on energy and emissions that can be attributed to all end users within a local government's boundary, including energy used in homes, by cars, businesses, and institutions including school buildings, healthcare buildings, and also the municipal government. Under the Local Government Green Communities Statutes Amendment Act (Bill 27 – 2008), BC local governments *must* have greenhouse gas reduction targets in their OCPs and Regional Growth Strategies, and define actions in an effort to meet those targets.

**Corporate** energy planning is a sub-set of community energy planning, typically comprising only a small proportion of community-wide energy consumption and emissions. It targets actions on energy and emissions that are created by local government operations, i.e. by all the buildings and infrastructure that the City owns and operates, and the civic fleet. Contracted emissions for typical local government services are also now included. All BC local governments that have voluntarily signed the Climate Action Charter are required to report annually on their corporate greenhouse gas emissions to the Province, and report on actions they are taking to reduce both corporate and community emissions, in order to receive their carbon tax rebate (formally called the CARIP grant – Climate Action Revenue Incentive Program). The City of Campbell River received \$26,893 from this in 2016 and uses this funding for greenhouse gas reduction initiatives.

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<sup>2</sup> Under the Local Government Green Communities Statutes Amendment Act (Bill 27 – 2008), BC local governments *must* have greenhouse gas reduction targets in their OCPs and Regional Growth Strategies, and define actions in an effort to meet those targets.

Provincial legislation adopted in 2008 requires all local governments to identify GHG reduction targets, policies, and actions in their Official Community Plans (OCP) and Regional Growth Strategies (RGS).

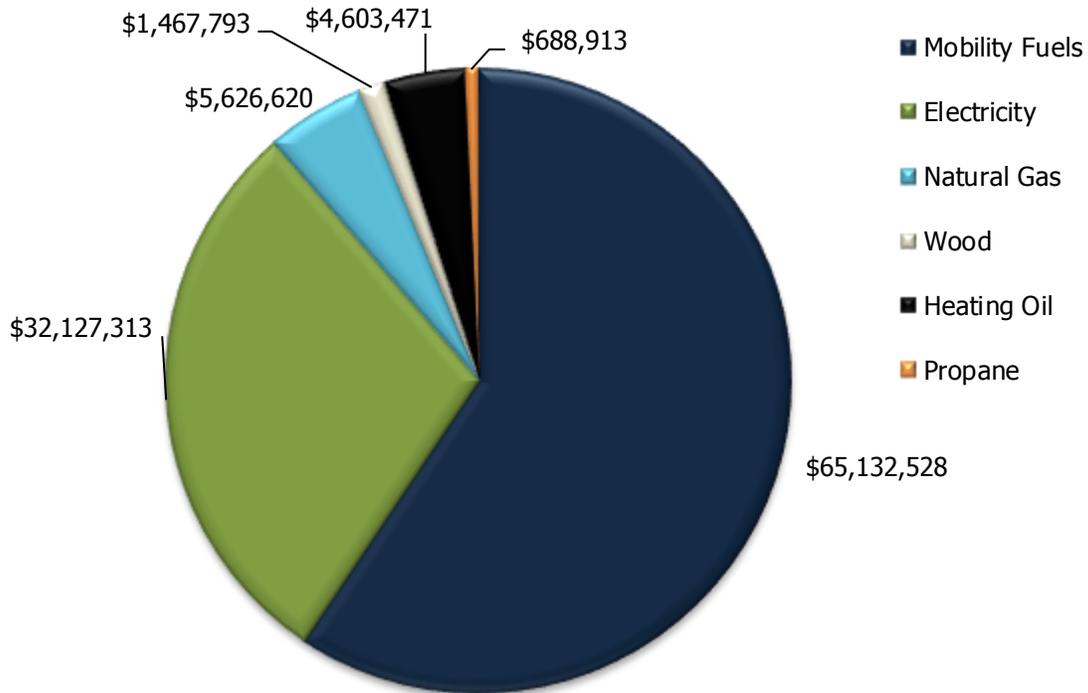
These commitments are summarized in the following table. The bottom right quadrant is the area of primary focus for a Community Energy & Emissions Plan (CEEP).

		Provincial	Municipal & Regional
Operations	Source	<i>Greenhouse Gas Reduction Targets Act</i> (Nov 2007)	British Columbia Climate Action Charter
	Commitment	Carbon neutral by 2010	Carbon neutral by 2012
	Funding	Yes, for some Provincial entities. E.g. for School Districts and Health Authorities	Carbon tax rebate (Climate Action Revenue Incentive Program, or CARIP grants)
Community	Source	<i>Greenhouse Gas Reduction Targets Act</i>	<b><i>Local Government (Green Communities) Statutes Amendment Act - Targets, Policies &amp; Actions (Bill 27-2008)</i></b>
	Commitment	33% by 2020, 80% by 2050; interim targets: 6% by 2012, 18% by 2016	<b>Define actions; set GHG targets in OCP's by May 31, 2010, in RGS's by May 31, 2011</b>
	Funding	No	<b>No</b>

## THE VALUE PROPOSITION FOR CEEP IMPLEMENTATION

Community energy and emissions planning can lead to widespread community benefits, and can enable the City of Campbell River to mitigate a number of risks facing the community.

# CAMPBELL RIVER COMMUNITY ENERGY EXPENDITURES PER YEAR



Source: Province of BC's 2010 CEEI, & local energy costing data

### Community-Wide Benefits of CEEP Implementation

CEEP implementation can enable the City of Campbell River to realize a great number of benefits for the community. For example:

- **Energy and Environmental Benefits:** Working towards meeting established energy and GHG reduction targets, mandated by the Province of BC to be included in Official Community Plans (OCPs). By reaching these targets, the City of Campbell River helps to mitigate climate change and community pollution.
- **Economic Benefits:** Reducing the \$110 million spent on energy community-wide per year in the City of Campbell River and recirculating a portion of that spending into the local economy (although major BC Hydro generating infrastructure and Capital Power's natural gas plant are both part of the community, reducing energy expenditures and finding additional opportunities for recirculation of energy dollars could have a significant economic benefit)

- Creating jobs among local contractors and building suppliers through the implementation of energy efficiency programs such as Power Down Campbell River
- Reducing risks associated with rising energy costs
- Providing a platform to collaborate with the building/development sector to find new business models related to changes in energy efficiency standards (e.g. the BC Building Code)
- Accessing grants related to green infrastructure and programs
- See the *Community Energy Planning: The Value Proposition* report for additional examples of economic benefits at [www.gettingtoimplementation.ca/resources](http://www.gettingtoimplementation.ca/resources)
- **Social and Resilience Benefits:** Achieving greater community resilience by reducing the community's exposure to risk, for example:
  - With improved building energy efficiency, the community will be less vulnerable to future increases in energy prices
  - With more transportation options available, the community will be less vulnerable to future fluctuating prices of gasoline and diesel
  - A vibrant and livable downtown through multi-use infrastructure, green buildings and urban forest cover, which is a draw for tourists and residents
  - Ensuring that the community is accessible for all residents, from the ages of 8 through to 80, and so residents can feel secure that they can age in place
- **Health Benefits:**
  - See the *Healthy Built Environment Linkages Toolkit* by the Provincial Health Services Authority
  - Better air quality + health
  - Healthy neighbourhood design - e.g. creating mixed land use has the potential to reduce obesity and improve quality of life
  - Healthy transportation networks - e.g. encouraging use of active transportation and public transit reduces obesity and unintentional injury
  - Healthy natural environments - e.g. maximizing opportunities to access and engage with the natural environment improves physiological health as well as social well-being
  - Healthy food systems - e.g. increasing access to healthy food in all neighbourhoods decreases diet related illness and obesity
  - Healthy housing - e.g. improved energy efficiency and thermal quality improve general health, respiratory health, and decrease winter mortality

### CEEP IMPLEMENTATION AS A WAY TO MANAGE COMMUNITY-WIDE RISKS

There are also risks involved with not implementing the CEEP. Principally, by not implementing, the community runs the risk of:

- **Policy, Regulatory and Legal Risks:** CEEP implementation will provide a platform for Campbell River to comply with current and forthcoming legislated energy and GHG emission requirements set out by Provincial and Federal governments



Figure 3. Taking public transit reduces energy consumption and greenhouse gases in the community.

**Funding Risks:** CEEP implementation will allow the City of Campbell River to identify ongoing opportunities to fund green infrastructure and programs (which are ramping up in Canada) as well as access the Provincial CARIP funding.

- **Economic Risks:** CEEP implementation will provide the City of Campbell River to manage and mitigate fluctuating energy prices. It will provide an opportunity to reduce the costs of operating homes and businesses and will provide an opportunity for the City of Campbell River to reduce the \$110 million spent on energy each year and recirculate part of that back into the local economy. The CEEP can also provide a platform to forge new partnerships and business models among community stakeholders that might not otherwise exist.
- **Livability, Quality of Life and Reputational Risks:** CEEP implementation can improve the quality of life within a community as a result of improved air quality, active transportation opportunities, reducing vulnerabilities associated with the heat island effect, etc., thus providing a pathway to become a more livable community for residents and businesses. Without CEEP implementation Campbell River risks failing to be as attractive to residents, businesses and tourists.
- **Environmental Risks:** CEEP implementation can provide a platform to find opportunities to adapt to climate change and enhance resilience to climatic changes.
- **Asset Management Risks:** CEEP implementation can help a community to manage asset renewal and incorporate Smart Energy Community principles<sup>3</sup> into asset management.



Figure 4. The Campbell River shoreline

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<sup>3</sup> QUEST Smart Energy Community Principles include six policies and six technical principles:  
<http://www.questcanada.org/thesolution/principles-smart-energy-communities>

## COMMUNITY ENERGY AND EMISSIONS PLANNING IN CAMPBELL RIVER: THE STORY SO FAR

In 2011, following an inclusive stakeholder engagement process, the City of Campbell River adopted its first Community Energy and Emissions Plan. CEEP targets were incorporated into the Official Community Plan (OCP), and implementation proceeded, although mostly in a reactive fashion depending on external funding availability.

A wide number of CEEP actions were implemented and investigated by the City, with significant successes. Campbell River is regarded as a leader among smaller communities in Canada, and this is demonstrated by the number of grants and awards it has received over the years. These include:

- 2015 recognition by the Getting to Implementation (GTI) project team of the City's leadership, by selecting Campbell River as a pilot community, and awarding the City hundreds of hours of implementation support valued at \$45,000, to build the capacity of Campbell River to further implement its CEEP. Campbell River was selected from dozens of applications from across Canada
- 2015 recognition by BC Hydro of Campbell River's leadership, by accepting an application by Campbell River for funding through the Community Energy Manager program. This program is only open to communities with a population over 75,000, or to "champion communities" and provides up to \$50,000 per year for the City, towards an additional resource that will work on CEEP implementation, emissions reduction, economic development, and enhancing the quality of life in Campbell River
- 2014 Climate & Energy Action Award honourable mention at UBCM in the Community Planning & Development category for Power Down Campbell River
- 2013 Climate & Energy Action Award win at UBCM in the Public Sector Collaboration category for joint efforts with School District 72
- 2013 EV Charging station installations & funding
- 2012 BC Hydro's Sustainable Communities program awards \$52,500 to the City for Power Down Campbell River, the City's flagship home energy efficiency retrofit program
- 2011 Sustainable Development Award – Communities in Bloom (National Award) – recognized the City's greenhouse gas emission reduction and sustainability initiatives
- 2011 Federation of Canadian Municipalities Green Municipal Fund awards a grant of \$55,154 to the City to fund the tidal power feasibility study
- 2010 Climate & Energy Action Award honourable mention at UBCM in the Corporate Operations category for its triple bottom line approach to corporate building renovations and leadership demonstrated in the green roof retrofit to City Hall
- 2010 Climate & Energy Action Award for the green roof at City Hall
- 2010 Federation of Canadian Municipalities Sustainable Communities Awards win in the Buildings category, for the green roof retrofit to City Hall
- 2010 Solar Community of the Year award – recognized solar initiatives including solar hot water installations on four municipal facilities, solar ready requirement for all new single family homes, public education and partnership with SD72 to promote solar energy
- 2010 BC Hydro funds CEEP development (\$50,000)



Figure 5. The Green Roof at City Hall

- 2009 Funding from FCM/Real Estate Foundation of BC for development of the City's Official Community Plan and Integrated Community Sustainability Plan

## CAMPBELL RIVER'S COMMUNITY LEADERS

A number of other stakeholders in Campbell River have also made impressive contributions to reducing energy consumption and greenhouse gas emissions. These include, but are not limited to:

- **School District 72**  
Has achieved its corporate GHG reduction target of 33% reduction by 2020 *five years early*. Projects undertaken by SD 72 include lighting upgrades, heating & boiler replacements, solar hot water installations, building envelope improvements, controls for HVAC systems, and engagement of staff and students. SD 72 had the distinction of being the *only* School District in all of BC profiled in the Province of BC's report, *Carbon Neutral Government, Year in Review 2015*. In 2013, SD 72 and the City of Campbell River also won an award in the Public Sector Collaboration Category of CEA's Climate & Energy Action Award for their joint efforts.
- **Island Health**  
The new Campbell River and Comox Valley hospitals are designed to be the most energy efficient in the Province, and among the most efficient in the world. They will use roughly half of the energy consumption of existing hospitals per square metre, and have greenhouse gas emissions 73% lower. Building features include heat pumps that extract heat from exhaust air, high levels of roof and wall insulation, high performance windows, and LED lighting. The new hospitals have received accolades from Health Minister Terry Lake, Energy and Mines Minister Bill Bennett, Island Health Board Chair Don Hubbard, and Comox Strathcona Regional Hospital District Board Chair Charlie Cornfield. The North Island Hospitals Project was also recognized by the Canadian Council for Public-Private Partnerships (CCPPP) for innovation and excellence in public-private partnerships – the project received the Silver Award for Infrastructure Sustainability at a ceremony in Toronto in 2014.
- **Strathcona Gardens**  
Is saving itself tens of thousands of dollars per year through implementing energy saving measures including high efficiency pumps, variable frequency drives, zone sensors, control systems, lighting retrofits including LEDs, and a waste heat recovery loop. The savings from the waste heat recovery loop alone are approximately \$40,000 per year in reduced natural gas consumption. Their efforts have been featured in more than one article in the Campbell River Mirror.
- **Headquarters Hair Salon**  
Used to have to throw away hair, hair foils, colour tubes, aerosol cans, batteries, and lightbulbs, but is now able to redirect 90% of its waste away from landfill. Some of the hair collected is for example made into booms to clean up after oil spills. What cannot be redirected is sent to a waste to energy facility, where it is turned into electricity. Their efforts were featured in an article in the Campbell River Mirror.

Despite the successes, the City of Campbell River has also faced challenges with respect to CEEP implementation. These challenges have centered around staff and financial resourcing and a need for integration of energy into local plans, policies and processes. The GTI project has been seeking to help the City overcome these challenges so it can maintain its leadership status, continue to leverage external grants and funding, and continue to realize the numerous co-benefits of CEEP implementation well into the future.

## SECTION 1: ENERGY AND GHG EMISSION REDUCTION TARGETS

*Key Questions for Consideration: Will the City of Campbell River meet its energy and GHG emission reduction targets? Should the city revise the targets?*

In 2011, Campbell River set out to achieve the following 2020, 2040 and 2060 energy and greenhouse gas (GHG) emission reduction targets, over a 2007 baseline. The following table demonstrates City targets to track the changes in energy consumption and GHG emissions. Data are not yet available to track changes to energy consumption and GHG emissions since the CEEP was adopted in 2011.

2007 Baseline <sup>4</sup>	2010 <sup>5</sup> (pre-CEEP)	2012	2014	Current Progress (%) <sup>6</sup>	2020	2040	2060
184,790 tonnes CO <sub>2</sub> e	188,647 tonnes CO <sub>2</sub> e	Data not yet available <sup>7</sup>	Data not yet available	N/A	25%	35%	40%
6.25 tonnes CO <sub>2</sub> e per person <sup>8</sup>	6.05 tonnes CO <sub>2</sub> e per person	Data not yet available	Data not yet available	N/A	35%	55%	65%
3.72 million gigajoules (GJ)	3.748 million GJ	Data not yet available	Data not yet available	N/A	20%	25%	30%

### **Background and Context**

- The energy and GHG reduction targets represent community-wide energy and emissions targets.<sup>9</sup>
- The BC Community Energy and Emissions Inventory (CEEI) is the primary source of data for tracking energy and GHG emissions.
- Draft 2012 data have only just been released and there are no CEEI data available beyond 2010. This has made it extremely difficult for the City to judge its progress in emissions reductions so far, whether further actions are required, and whether it should adjust its targets.

<sup>4</sup> Note that the 2011 CEEP notes that in 2007, 204,265 tonnes CO<sub>2</sub>e were emitted and 4.04 gigajoules (GJ) of energy were consumed in Campbell River. This translates to 6.8 tonnes CO<sub>2</sub>e per person. These data were drawn from the 2007 Ministry of Environment Community Energy and Emissions Inventory. The data were later adjusted.

<sup>5</sup> Government of British Columbia (2010). Community Energy and Emissions Inventory Complete 2007 and 2010 CEEI dataset in one file (Feb 2014). <http://www2.gov.bc.ca/gov/content/environment/climate-change/reports-data/community-energy-emissions-inventory>

<sup>6</sup> Note that the CEEP was adopted in September 2011. Energy and emissions produced in 2012 may not accurately reflect the implementation impacts of the CEEP.

<sup>7</sup> The data for this table come from the Provinces CEEI data. There is currently no available data for 2012 or 2014.

<sup>8</sup> Assumes a population of 29,572 in 2007 and 31,186 in 2011.

<sup>9</sup> Note that the City of Campbell River also has corporate energy and emissions targets, which are encompassed in the overall community-wide energy and GHG targets. See the introduction of this report.

- Data collected by the City of Campbell River as part of the annual Climate Action Revenue Incentive Program provides only qualitative data with respect to community emissions, but it does collect quantitative data on corporate emissions.
- The lack of CEEI data has made CEEP implementation more difficult for the City, but has not made it impossible to judge progress. The CEEI data can be considered to be like a map, that can help one understand how close one is to a destination. Secondary indicators can be considered to be like a compass, that can help the City understand that it is making progress in the right direction. A compass is useful even without a map.

#### GTI RECOMMENDATIONS:

1. *When the BC Community Energy and Emissions Inventory becomes available, complete the above table to determine the energy and GHG impacts of the 2011 CEEP. Note that the CEEP was adopted in September 2011. Staff should consider 2012 data to illustrate CEEP impacts, however, 2014 data may provide a more accurate assessment of energy and emissions impacts, when they become available.*
  - *When 2014 data become available, consider revising the target. For example, consider setting an interim target for 2030. Consider shifting the target from a visionary target to a pragmatic target based on the actions identified in the plan. This would require a full GHG impact assessment of the actions in the plan. Consider updating the 2007 baseline and 2010 energy and emissions data as the methodology provided by the CEEI may have changed.*
2. *Consider revising the energy and emissions targets for the Community Energy and Emissions section of the Official Community Plan (OCP) when 2014 data become available.*
3. *When the opportunity arises, work with the Province of British Columbia to express the urgency for more frequent access to energy and emissions data.*
4. *In the interim, consider recommendations in Section 2 and Appendix I on monitoring and reporting on Key Performance Indicators as a way to measure CEEP implementation.*



Figure 6. The three organizations that partnered for the GTI initiative.

## SECTION 2: KEY PERFORMANCE INDICATORS

*Key Question for Consideration: How can the City of Campbell River measure CEEP implementation progress?*

Key Performance Indicators (KPIs) enable communities to measure the outcomes of CEEP implementation. When KPIs are monitored on a regular basis, communities can determine how best to allocate resources to support implementation.

### **Background and Context:**

- The 2011 CEEP contains primary and secondary indicators that set out to monitor measurable impacts of CEEP implementation:
  - **Primary indicators** include energy and GHG emission reduction targets. Tracking community-wide energy and GHG emissions is central for assessing overall progress on implementation.
    - Community-wide energy and emissions data are provided by the Province of British Columbia Community Energy & Emissions Inventory (CEEI)
    - The Province releases these data for every community in the Province
    - Community-wide energy and emissions data are provided every 2-4 years
    - The City of Campbell River could choose to create its own inventory, however energy and emissions inventories are expensive to produce and a time consuming process. Additionally, it would be difficult to precisely replicate the Province’s methodology for earlier inventories and the baseline year of 2007.
    - See Section 1 for additional background information.
  - **Secondary indicators** can demonstrate measurable implementation progress beyond energy and GHGs, including but not limited to land use, transportation, waste and economic development
    - Appendix I contains a list of KPIs developed to monitor CEEP implementation
    - Examples of secondary indicators include, but are not limited to, dwellings built within a 10 minute walk to retail / food store (as this promotes walking), kilometers of bicycle paths built in a year, and number of building energy retrofits conducted in a year.
    - Much of the data to track secondary KPIs are available within the City of Campbell River.
- Currently, CEEP KPIs are not being monitored or reported on a regular basis.
- The City of Campbell River currently submits a qualitative report to the Climate Action Revenue Incentive Program (CARIP)
  - City of Campbell River staff prepare an annual CARIP report that is reported to Council or to a Committee of Council, and then submitted to the Province (in 2016 all this information was due to be submitted to the Province on June 1st).
  - The report includes a summary of actions undertaken by the City to reduce community and corporate energy consumption and emissions
  - At present KPIs are not included in the report (with the exception of the corporate carbon footprint, and kilometers of bicycle and pedestrian infrastructure built).

- The lack of monitoring and reporting on primary and secondary indicators is putting CEEP initiatives at risk of not obtaining long-term and ongoing support for CEEP implementation from Council, the Provincial and Federal governments and community members.
- In addition, many external stakeholders in Campbell River are conducting exceptional work in reducing energy consumption and emissions, including for example the School District and Island Health. While the progress being made by community stakeholders is being recognized on an ad-hoc basis there is not a formal process in place to recognize their progress

### GTI RECOMMENDATIONS

1. *Adopt the revised KPIs in Appendix I, which set out to track measurable implementation progress across multiple sectors. Note that Appendix I identifies the data source and proposed departments responsible for tracking the KPI.*
2. *Embed KPI reporting into staff work plans.*
3. *The Community Energy Advisor should act as the repository for KPI data and should produce an annual implementation progress report. The CEEP implementation progress report should be delivered alongside, or integrated with, the CARIP annual report.*
4. *Invite external stakeholders to submit progress as part of the annual report. Consider recognizing organizations through the Stewardship Award Program.<sup>10</sup>*
5. *See Section 1 for related recommendations.*



Figure 7. A view of downtown Campbell River

<sup>10</sup> City of Campbell River (n.d.). Stewardship Award Program. <http://www.campbellriver.ca/your-city-hall/city-honours/stewardship-awards>

## SECTION 3: PRIORITY ACTIONS

The 2011 CEEP was adopted with 45 actions:

- 29 have been implemented or are in the process of being implemented;
- 1 was assessed and it was determined that implementation was not feasible; and
- 15 have not yet been implemented.

The objective of this review is to determine which actions within the CEEP should be pursued, and in what order they should be implemented. The level of priority assigned to each action was determined based on:

1. Current staff and financial resources
2. Community priorities, including potential for energy and GHG reductions as well as economic development<sup>11</sup>

THE FOLLOWING TABLE SUMMARIZES GTI RECOMMENDATIONS.

Action	Additional Comments and Considerations	Resources Required	Service Level Change Request (2017 or 2018)
<b>The following actions are currently being implemented and should proceed:</b>			
<b>Long-term residential growth is planned as mixed use, infill, or redevelopment sites within existing urban areas and/or within the urban containment boundary</b>	<ul style="list-style-type: none"> <li>– Encourage more balance between multi- &amp; single family</li> <li>– Locate new residences in areas accessible to community services &amp; facilities e.g. downtown</li> <li>– Permit new growth &amp; development based on the ability of the City to service areas appropriately without unnecessary infrastructure cost burdens</li> </ul>	– Staff time	No
<b>Establish hierarchy of compact, mixed-use centres, including neighbourhood centres, village centres, and</b>	<ul style="list-style-type: none"> <li>– Establish village centres in key areas</li> <li>– Focus employment growth in downtown core, existing major employment nodes, and along corridors served by rapid and frequent transit</li> </ul>	– Staff time	No

<sup>11</sup> The GTI team developed preliminary assumptions with respect to the energy and GHG as well as economic development impacts of implementing the actions. The CEEP Steering Committee conducted a preliminary exercise to review the actions contained within the CEEP and engaged in a discussion to determine and validate the level of priority for each of the actions. As part of the exercise, participants were invited to share ideas on new projects. Appendix III includes a list of actions contained in the 2011 CEEP, categorized into strategic focus areas and are listed in order of their current priority. Additional actions were included as a result of input received from interviews with staff and community stakeholders.

Action	Additional Comments and Considerations	Resources Required	Service Level Change Request (2017 or 2018)
<b>downtown redevelopment</b>			
<b>Reduce residential building energy intensity through optimizing zoning including the size of lots/parcels</b>	<ul style="list-style-type: none"> <li>– Allow &amp; encourage secondary suites, laneway cottages, and conversions to multi-family structures such as duplexes</li> <li>– Focus on improving housing diversity, choice, and affordability</li> <li>– Have a housing strategy to address incentives for bringing illegal suites up to code</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> </ul>	No
<b>Improve pedestrian experience through infrastructure investments and land use planning</b>	<ul style="list-style-type: none"> <li>– Increase sidewalk coverage, &amp; make other pedestrian infrastructure improvements, such as practicality and continuity</li> <li>– Support development of greenways</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> <li>– Funding</li> </ul>	No – already ongoing
<b>Improve bicycle infrastructure including networks, facilities, programs and policies</b>	<ul style="list-style-type: none"> <li>– Enhance bicycle network, including using design guidelines, enhanced on-street bicycle parking, end of use facilities, etc.</li> <li>– Consider safe cycle training</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> <li>– Funding</li> </ul>	No – already ongoing
<b>Connect existing and planned centres with quality transit</b>	<ul style="list-style-type: none"> <li>– Improve transit services, including rapid transit corridors where helpful</li> <li>– Improve transit infrastructure &amp; facilities</li> <li>– Support strategies that will improve travel information for transit riders, expand transit pass programs, concentrate development around transit nodes, and improve accessibility to transit</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> <li>– Funding</li> </ul>	No – already ongoing
<b>Establish Community-Wide Transportation Demand Management Programs to incent more sustainable transport</b>	<ul style="list-style-type: none"> <li>– Integrated land use and transportation planning</li> <li>– Parking management strategies</li> <li>– Demonstrate city leadership through a diversity of programs for City staff</li> <li>– Education &amp; awareness</li> <li>– Programs &amp; initiatives targeted at major employers &amp; small businesses</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> <li>– Funding</li> </ul>	No – already ongoing

<b>Action</b>	<b>Additional Comments and Considerations</b>	<b>Resources Required</b>	<b>Service Level Change Request (2017 or 2018)</b>
<p><b>Establish a Community Energy Retrofit Program - Power Down Campbell River</b></p>	<ul style="list-style-type: none"> <li>– Phase I of PDCR was highly successful</li> <li>– Phase 2 of PDCR is in the process of being implemented for the next two years</li> <li>– Energy efficiency is the backbone of a strong CEEP - it offers the potential for deep energy and GHG reductions and economic development opportunities</li> <li>– GTI recommends that the City of Campbell River consider increasing the target of 2 percent building stock retrofits/year</li> <li>– GTI recommends that the program target be amended to include an energy and GHG target</li> <li>– GTI recommends to measure the positive economic impacts of Power Down Campbell River (e.g. number of local jobs created and energy dollar savings).</li> <li>– Note that the Energy Efficiency Branch of the Ministry of Energy and Mines can be contacted to track EnerGuide assessment data and changes, BC Hydro and FortisBC can be contacted to track uptake of HERO rebates, and the Province of BC’s Ministry of Energy &amp; Mines or City Green can be contacted regarding uptake of the Oil to Heat Pump program</li> </ul>	<ul style="list-style-type: none"> <li>– Program funding</li> <li>– Staff time</li> </ul>	<p>2017 carry forward</p> <p>SLCR in 2018</p>
<p><b>Promote building scale renewable heat</b></p>	<ul style="list-style-type: none"> <li>– The City of Campbell River currently has the oil to heat pump conversion program (working in conjunction with the Province’s Oil to Heat Pump program), a solar ready bylaw and has integrated energy requirements into the building process. All of these should continue.</li> <li>– The City of Campbell River should focus on promoting these four initiatives to stakeholders and the public.</li> <li>– Key Performance Indicators have been recommended by the GTI team that will track the uptake of all four initiatives.</li> <li>– Consider propane and natural gas to heat pump</li> </ul>	<ul style="list-style-type: none"> <li>– Program funding</li> <li>– Staff time</li> <li>– Potentially could be delivered by a community organization</li> </ul>	<p>Can be combined with PDCR</p>

Action	Additional Comments and Considerations	Resources Required	Service Level Change Request (2017 or 2018)
	programs in the future.		
<b>Pilot highly energy efficient building project</b>	<ul style="list-style-type: none"> <li>– Potential to use the new passive Fire Hall as a demonstration project.</li> <li>– The City of Campbell River should pilot a highly energy efficient building project (e.g. Passive House standard). The purpose is to help the builder / development community become accustomed to more energy efficient building standards.</li> <li>– This could proceed through building a new or refurbishing a City owned building, through a partnership with a local firm, or through providing incentives to encourage more energy efficient new construction.</li> <li>– If possible, ensure that the development is in a compact, mixed-use location within the community.</li> <li>– Note that this same idea was also raised during the Nunns Creek Master Planning Process, with respect to a potential future Greenways Land Trust (GLT) office. GLT board members are very interested to demonstrate / show case energy efficiency/passive designs. This is a potential partnership.</li> <li>– Could consider partnering with local academic institutions</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> <li>– Funding provided by developer</li> </ul>	Possibly
<b>Education and outreach, especially to maximize building sector impact</b>	<ul style="list-style-type: none"> <li>– Continue to host energy efficiency workshops for builders, building owners and operators, and real estate agents.</li> <li>– Consider leveraging the expertise of the Community Energy Advisor to build internal capacity – for example – training and updates for the Building Officials at the City</li> <li>– Collaborate with North Island Employment Foundations Society (NIEFS) &amp; North Island College (NIC) to build capacity of trades.</li> </ul>	<ul style="list-style-type: none"> <li>– Program funding</li> <li>– Staff time</li> </ul>	Possibly

Action	Additional Comments and Considerations	Resources Required	Service Level Change Request (2017 or 2018)
	<ul style="list-style-type: none"> <li>– Consider other education opportunities to educate the public on the reduction of emissions and energy consumption, from children to retirees.</li> </ul>		
<b>Increase new building efficiency</b>	<ul style="list-style-type: none"> <li>– Phase in a program to advance energy performance in new buildings that are sensitive to municipal &amp; private sector costs</li> <li>– Require a sustainability checklist to be completed as a condition of OCP &amp; Zoning Bylaw amendments, rezoning apps, subdivision, and development permits</li> <li>– Develop flexible financial &amp; administrative incentives (including for labeling), as appropriate. Could incentivize ENERGY STAR® for New Homes, R-2000, and Passive House</li> <li>– Encourage Province to ramp up BC Building Code more</li> <li>– Note that it would be prudent to wait until there is more clarity on the BC Building Act and Energy Step Code before starting this action. This should occur by early 2017</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> </ul>	Possibly
<b>Encourage energy efficient design of buildings</b>	<ul style="list-style-type: none"> <li>– Identify opportunities to incorporate energy efficiency into the Official Community Plan and Refresh Downtown Campbell River while they are undergoing review</li> <li>– Consider adopting the existing draft Development Permit Area for Community Energy and Emissions</li> <li>– Consider implementing the energy efficiency focused zoning bylaw review undertaken by the Community Energy Association in Q1 2016</li> <li>– Consider ways to incorporate CEEP principles into the building / development process more E.g.:               <ul style="list-style-type: none"> <li>– Staff to include a summary in reports to Council about how development applications</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> </ul>	No

Action	Additional Comments and Considerations	Resources Required	Service Level Change Request (2017 or 2018)
	<ul style="list-style-type: none"> <li>support or detract from the CEEP.</li> <li>– Require land owners/developers to include a summary detailing how development permit applications / site plans / rezoning applications support or detract from the CEEP objectives.</li> <li>– Requiring the use of the Sustainability checklist for rezoning and development permit applications, and building permits. Consider tying this to incentives.</li> <li>– See Section 5 for further context.</li> </ul>		
<b>To reduce construction waste, implement Development Permit Area guidelines for lower-impact building design and construction</b>	<ul style="list-style-type: none"> <li>– These are outlined in the Sustainable Official Community Plan, including to design to allow material re-use, use durable finishes &amp; materials, and use salvaged, recycled, reused, renewable, or local materials where possible</li> <li>– There is a near-term opportunity to provide input on the DPA from this perspective</li> </ul>	– Staff time	N/A
<b>Coordinate with Agriculture Plan</b>	<ul style="list-style-type: none"> <li>– Establish an independent agriculture advisory body as a resource to the industry and to assist the City in aligning local government policy with an emerging agriculture sector</li> <li>– Work with interested landowners to identify options for cost-effective leases and other tenure options that reduce barriers to industry entry</li> <li>– Collaborate with or support the Economic Development Officer where appropriate in respect to supporting opportunities for economic development in the agriculture industry</li> <li>– Identify opportunities through the OCP and Zoning By-law review to promote and facilitate urban agriculture</li> </ul>	– Staff time	No
<b>OCP and Zoning Review to promote and facilitate urban agriculture</b>	<ul style="list-style-type: none"> <li>– Consult with stakeholders including Economic Development Officer, to see what barriers exist to urban agriculture, and incorporate changes into OCP and Zoning Bylaw.</li> </ul>	– Staff time	No

Action	Additional Comments and Considerations	Resources Required	Service Level Change Request (2017 or 2018)
<b>Coordinate with Urban Forest Management Plan (UFMP)</b>	<ul style="list-style-type: none"> <li>– Identify &amp; advance/prioritize UFMP action items that lead directly to GHG reductions</li> </ul>	<ul style="list-style-type: none"> <li>– Program funding</li> <li>– Staff time</li> </ul>	Possibly
<b>Recognize green infrastructure as an asset</b>	<ul style="list-style-type: none"> <li>– Develop a public engagement campaign to communicate the value of urban forest and the positive impacts on energy and emissions.               <ul style="list-style-type: none"> <li>– Implement signage highlighting the benefits and value of urban trees through the “See the Tree” program</li> <li>– Assess energy savings &amp; cooling effects of trees in relation to buildings</li> </ul> </li> <li>– This action can help with understanding the benefits of the Urban Forestry Master Plan.</li> <li>– It is possible to calculate the carbon uptake and sequestered carbon of individual trees</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> <li>– Capital funding (minimal)</li> </ul>	Yes
<b>Lead by example with civic operations</b>	<ul style="list-style-type: none"> <li>– Review City’s Corporate Carbon Neutral Plan, targets, and actions for City buildings, infrastructure, and vehicles</li> <li>– Develop &amp; implement a policy for all new City buildings to be built to high energy efficiency standards</li> <li>– Benchmark &amp; publicly report on energy performance of City facilities</li> <li>– Implement a staff travel CO<sub>2</sub> generation analysis to be completed alongside travel expense forms (as the Agricultural Land Commission does)</li> </ul>	<ul style="list-style-type: none"> <li>– Capital and O&amp;M funding</li> <li>– Staff time</li> </ul>	Possibly
<b>Build City’s institutional capacity to support low carbon community development</b>	<ul style="list-style-type: none"> <li>– Develop a staff plan for coordinating the implementation of the CEEP</li> <li>– Report annually on CEEP implementation progress to a Committee / Council</li> <li>– Develop a formal policy on the funding source &amp; use of monies for the Carbon Neutral Reserve Fund. Formalize strategy for use of CARIP funding for City sustainability initiatives that promote</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> </ul>	No

Action	Additional Comments and Considerations	Resources Required	Service Level Change Request (2017 or 2018)
	<p>GHG reduction (allocated to CPDS Dept)</p> <ul style="list-style-type: none"> <li>– Develop Carbon &amp; Municipal Financial Management Capacity by developing municipal cost &amp; carbon management policy. And by integrating lifecycle cost and greenhouse gas implications into Capital Planning Process, Procurement, and annual budget submissions.</li> <li>– Consider incorporating energy conservation policies &amp; procedures into other training programs.</li> <li>– Consider implementing the BC Hydro Workplace Conservation Awareness program</li> <li>– Consider having awards for staff on energy / environmental issues</li> <li>– Consider providing staff with regular opportunities to provide ideas on energy / environmental issues (e.g. meetings or suggestion box) and feature ideas in City and People (employee newsletter)</li> </ul>		
<b>Expand electric vehicle charging infrastructure</b>	<ul style="list-style-type: none"> <li>– The City of Campbell River has submitted an expression of interest for a DC fast charger to the Province of BC</li> <li>– Depending on demand for electric vehicle charging, consider adding more locations</li> <li>– The City has already identified some more potential sites for electric vehicle charging stations</li> <li>– Consider D.C. Fast Charge stations</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> <li>– Funding</li> </ul>	Possibly
<b>The following actions can be implemented in medium term (2-5 years):</b>			
<b>Continuous optimization program for large buildings</b>	<ul style="list-style-type: none"> <li>– School District and Island Health have experienced significant energy and GHG reductions and cost savings from doing this.</li> <li>– The City could do an RFP for continuous optimization of its buildings, and ask large</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> <li>– Some funding</li> </ul>	– Possibly

Action	Additional Comments and Considerations	Resources Required	Service Level Change Request (2017 or 2018)
	buildings in the community to link up with them in order to reduce costs. – Utilities may provide incentives.		
<b>Promote the use of wood as a preferred building material</b>	– Campbell River is a Wood First community. – Using wood helps to store carbon. – Using wood for mid-rise buildings may be more cost-effective than the status quo and can support the forestry industry. – Using wood for mid-rise construction is novel and would require education among the development community. – Conduct more research on pros & cons. – Consider developing a pilot project. – Consider lessons learned from the Ripple Rock school project.	– Program funding – Staff time	– No
<b>Solar powered lighting for airport sign and/or other locations</b>	– This has the potential to be a prominent demonstration project, helping to raise awareness of solar power. – Installation should be highly visible.	– Staff time – Funding	– Possibly
<b>Revise and promote the Green Guide for City Events – a low waste guide for city events</b>	– Review the Green Guide for City Events, which has suggested practices discouraging and encouraging certain items at City events as part of the Green City Strategy. – Consider the best way forward to ensure low waste practices at the City. E.g. <ul style="list-style-type: none"> <li>– Re-promote the Green Guide, with or without adjustments</li> <li>– Consider developing a formal low waste policy for the City</li> <li>– Consider eliminating unnecessary “swag” giveaways or distributing products at City events that encourage low-consumption e.g. reusable water bottles and shopping bags etc.</li> <li>– Develop procurement policies that</li> </ul>	– Staff time	– No

Action	Additional Comments and Considerations	Resources Required	Service Level Change Request (2017 or 2018)
	support low-waste principles		
<b>Adjust waste collection services to encourage organic waste diversion &amp; reduction</b>	<ul style="list-style-type: none"> <li>– Collaborate with CSWM, CVRD and Province to implement this action.</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> <li>– Potentially funding</li> </ul>	<ul style="list-style-type: none"> <li>– Possibly</li> </ul>
<b>Establish a composting strategy</b>	<ul style="list-style-type: none"> <li>– Continue yard waste pick up services between the spring and fall.</li> <li>– Introduce a year-round composting service.</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> <li>– Potentially funding</li> </ul>	<ul style="list-style-type: none"> <li>– Possibly</li> </ul>
<b>Create a one-stop-drop depot, for reusable and recyclable materials</b>	<ul style="list-style-type: none"> <li>– Partner with organizations like ReStore.</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> <li>– Potentially funding</li> </ul>	<ul style="list-style-type: none"> <li>– Possibly</li> </ul>
<b>Require space for recycling in large residential and commercial buildings and public facilities</b>	<ul style="list-style-type: none"> <li>– The City of Campbell River should implement this in all publicly owned buildings</li> <li>– Engage with the development sector to design a policy requiring space for recycling and composting.</li> <li>– Bylaw</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> </ul>	<ul style="list-style-type: none"> <li>– No</li> </ul>
<b>Develop anti-idling campaign and enforce the anti-idling bylaw</b>	<ul style="list-style-type: none"> <li>– Natural Resources Canada has the position that idling for over 10 seconds uses more fuel, costs more money, and produces more CO<sub>2</sub> emissions than restarting your engine. There can also be substantial air quality savings.</li> <li>– Many communities in BC have bylaws in place that prohibit idling at certain times of the year in certain places. Good places to target may be at schools and nurseries, in order to help protect the health of children. Outside the municipal office can also help to set a good example, and can be an easy place to enforce.</li> <li>– Northern Rockies Regional Municipality has a carrot rather than a stick approach to encourage people not to idle. The municipality runs a</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> </ul>	<ul style="list-style-type: none"> <li>– No</li> </ul>

Action	Additional Comments and Considerations	Resources Required	Service Level Change Request (2017 or 2018)
	campaign called “Idle-less October” in Fort Nelson, with sweet treats left on the windshields of non-idling vehicles and labels saying “Thank you for not idling!”		
<b>Encourage green roofs and/or white roofs</b>	<ul style="list-style-type: none"> <li>– Can result in more efficient use of energy inside buildings.</li> <li>– Other benefits include: health (clean air), biodiversity and local community beautification.</li> </ul>	– Staff time	– No
<b>The following actions may not be feasible in Campbell River in the short-medium term. Reconsider these actions within 5-10 years and/or during the next CEEP renewal.</b>			
<b>Explore district energy in key development areas</b>	<ul style="list-style-type: none"> <li>– Consider district energy as part of a broader community emergency management / resilience strategy.</li> <li>– As a result of low densities and the low price of natural gas, district energy projects are currently not cost-competitive.</li> <li>– Reconsider this action during the next phase of CEEP renewal.</li> </ul>		
<b>Establish a Biomass Energy Agenda using local, sustainably-derived inputs</b>	– This strategy was in CEEP V1, and a Sustainable Wood Biomass Study was completed. Regardless, the economics of most actions are likely to be marginal due to the low price of natural gas. It is possible that the wood pellet industry may identify Campbell River as a potential site for a future pellet mill, and the City could treat such an application favourably.		
<b>Develop a Local, Long-term Low Carbon Power Agenda</b>	– Wind turbine and tidal power studies have been completed. Due to low price of electricity and high cost of electricity from tidal power or small to mid-sized wind turbines, economics are unlikely to be feasible within City boundaries (projects may find it feasible to locate outside of City boundaries).		

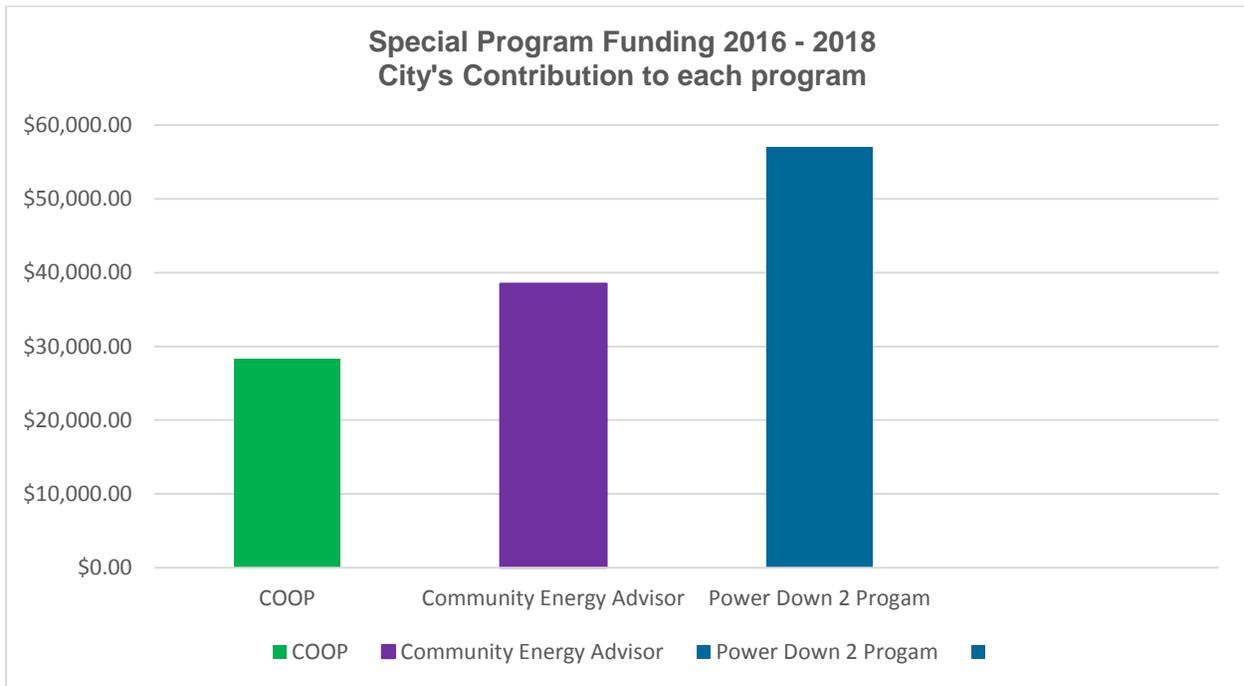
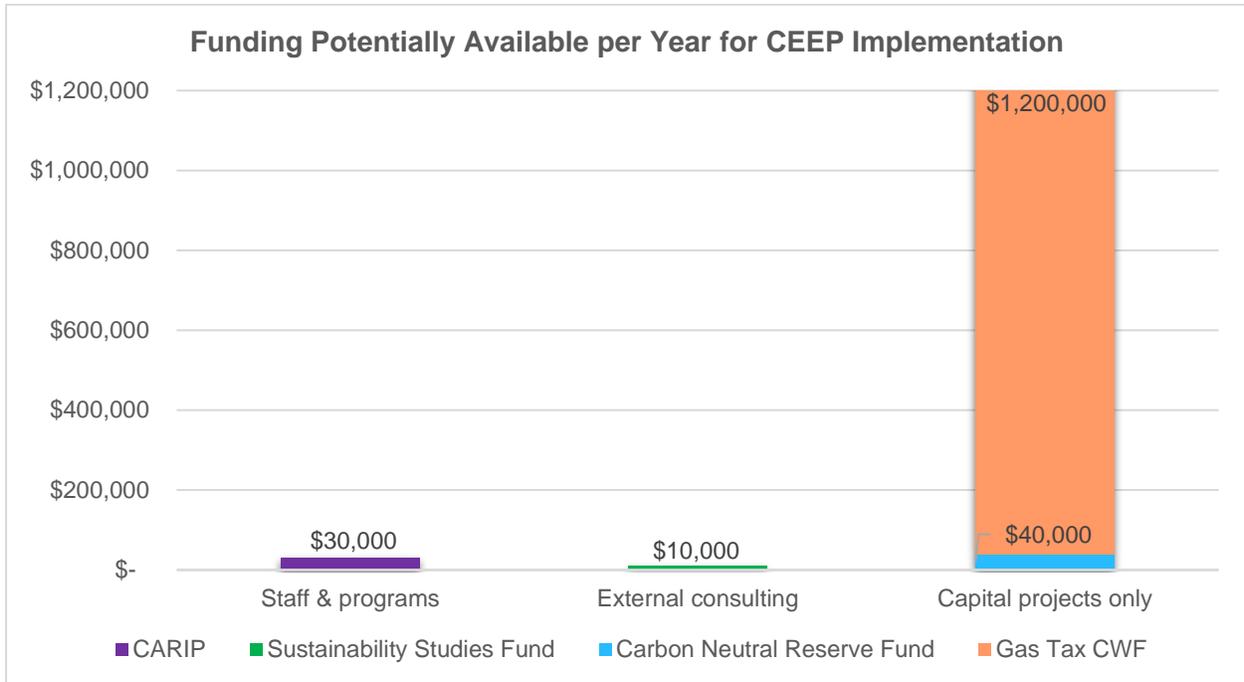
Action	Additional Comments and Considerations	Resources Required	Service Level Change Request (2017 or 2018)
<b>Establish zero waste building construction &amp; demolition program</b>	<ul style="list-style-type: none"> <li>– Engage with the CSWM and the building and construction sector to determine the feasibility of establishing a zero waste building and construction demolition program.</li> </ul>		
<b>Regulate / restrict foreshore campfire burns and/or eliminate backyard burning, to improve air quality</b>	<ul style="list-style-type: none"> <li>– Sentiment that if city regulates camp fires this would be viewed negatively by many in the community</li> <li>– May be possible to do this using the Clean Air Bylaw</li> <li>– Regulation through designated fire rings</li> <li>– Fires would be permitted where there is accessibility for fire services</li> </ul>		
<b>Develop a Community Carbon Offset Framework to enable City to meet carbon neutrality by investing in local projects</b>	<ul style="list-style-type: none"> <li>– More information needed on what this entails.</li> <li>– Observe what Cowichan Energy Alternatives is doing with the City of Duncan and other partners.</li> </ul>		
<b>Investigate landfill gas capture &amp; opportunities for energy generation at both existing and future waste management centres, with CSWM</b>	<ul style="list-style-type: none"> <li>– Liaise with CSWM to investigate feasibility of landfill gas capture to energy opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> <li>– Capital and O&amp;M funding</li> <li>– Revenue opportunity?</li> </ul>	<ul style="list-style-type: none"> <li>– This is CSWM jurisdiction, funding would be through them</li> </ul>
<b>Fund for climate action initiatives from a clean power project or from corporate energy savings</b>	<ul style="list-style-type: none"> <li>– Consider a partnership with BC Hydro to generate power locally, and to use the revenue in a revolving fund to fund community energy projects/programs. Or consider establishing a fund for energy efficiency retrofits on City owned assets funded from the savings from other energy efficiency retrofit projects, as many School Districts and Health Authorities have done.</li> </ul>	<ul style="list-style-type: none"> <li>– Staff time</li> <li>– Capital and O&amp;M funding</li> <li>– Revenue opportunity</li> </ul>	<ul style="list-style-type: none"> <li>– Possibly</li> </ul>

## SECTION 4: FUNDING STRATEGY

The objective of the funding review is to assess long-term opportunities for ongoing funding to support CEEP implementation.

### ***Background and Context***

- Many of the projects implemented as part of the 2011 CEEP were funded in an ad-hoc way as grant programs became available, by obtaining funding from a variety of sources including the City of Campbell River’s Carbon Neutral Reserve Fund (CNRF) and Climate Action Revenue Incentive Program (CARIP) funds, BC Hydro, the Province of British Columbia, FCM Green Municipal Fund funding, etc.
- The following chart summarizes the main sources of municipal funding available on an annual basis to support the implementation of the CEEP as well as the allowable internal expenditures. The chart illustrates that
  - Dedicated resource and program funding: Currently there is some funding available to support a dedicated resource and programs. (Approximately \$30,000 per year, through the CARIP rebate)
  - Project capital and O&M funding: Currently there is adequate funding available to support project implementation (Approximately \$1,200,000) primarily funded through the Community Works Fund (for initiatives such as sidewalk infill, energy retrofits, etc.)
  - Consulting: Currently there is an adequate amount of funding available to support consulting services (Approximately \$10,000)
- In summary, there is a reasonable level of funding available to support capital projects. However, there is inadequate funding available to support a long-term dedicated resource or programs.
- Without a long-term dedicated resource as well as funds dedicated to programs, the City of Campbell River risks not meeting the long-term energy and GHG objectives established in the CEEP.
- The mismatch in dollars available for projects and for staff/programs is a result of the following: the Carbon Neutral Reserve Fund is currently funded from the Gas Tax Community Works Fund, which limits that money to only being spent on capital projects. If the Carbon Neutral Reserve Fund were funded through a different means, for example through the operating budget or Gaming Reserve, then those funds could join the Climate Action Revenue Incentive Program and be spent on resources in addition to programs. The small amount of funding allocated for sustainability studies also plays a role in helping to acquire external resources and matching funding.



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<sup>12</sup> Each program is matched 50% by one or more parties, primarily BC Hydro, but also including the Pacific Institute for Climate Solutions (PICS).

## ***The Value Proposition for Funding CEEP Implementation***

The ongoing contribution of City funds to dedicated resources, programs, and capital projects is integral for:

- Signaling a strong commitment across the municipality that the City of Campbell River is committed to meeting long-term community-wide energy and GHG emissions objectives.
- Unlocking additional sources of funding. For example, ongoing, dedicating funding can enable the City of Campbell River to leverage internal funds to obtain external funds. For example:
  - Dedicated Resources: BC Hydro matches local government funding to support a Community Energy Advisor and Co-op Students, which the City has accessed
  - Programs: Some external funding sources require local governments to match funding to support program implementation. For example, the BC Hydro Sustainable Communities Program.
  - Capital projects: there are generally many more sources of funding available than with resources or programs, and can include for example the Federation of Canadian Municipalities' Green Municipal Fund or the Province of BC's Community Energy Leadership Program, but a contribution from the City can benefit an application and in some cases may even be a requirement.

By funding CEEP implementation, the City can unlock the other benefits of CEEP, as outlined on pg. 7 (the value proposition)

*Approach for assessing a funding strategy to support the implementation of the CEEP:* An assessment was completed by the GTI team and city staff to determine how much funding was available to support (1) a dedicated resource, (2) programs, (3) consultants and (4) project capital and O&M. The GTI team compiled the data provided by the City of Campbell River and produced the above chart, which summarizes funding currently available for staff, programs, consulting and capital projects. The approach is intended to identify gaps and opportunities to find long-term funding to support the implementation of the CEEP. Note that the chart does not include external sources of funding that are not reliably and regularly available. For example, it excludes all external sources of funding apart from the Climate Action Revenue Incentive Program (CARIP) and Gas Tax. See Appendix IV for the funding analysis.

### **GTI RECOMMENDATIONS:**

*The City of Campbell River should allocate sufficient, ongoing funding to dedicated resources, programs and capital projects to ensure that community-wide energy and GHG targets are met.*

#### ***Dedicated Resources and Program Funding***

- *Without a dedicated resource as well as funds dedicated to programs, the City of Campbell River risks not meeting the long-term energy and GHG objectives established in the CEEP.*
- *Currently, the City of Campbell River has a Community Energy Advisor. This role provides a sufficient dedicated resource to oversee implementation in the short term. Consideration should be given to fund a dedicated resource beyond the Community Energy Advisor's 2-year term.*

*Examples of ongoing dedicated resources include, but are not limited to:*

- A Community Energy Advisor
- A program manager/project coordinator within the land use planning or economic development department

*Examples of programs include, but are not limited to:*

- *Power Down Campbell River (including promoting building scale renewable heat)*
- *Piloting a highly energy efficient building project*
- *Education and outreach to maximize building sector impact*
  
- *Consider adjusting the terms of the Carbon Neutral Reserve Fund to support a dedicated resource and programs to oversee the CEEP once the 2-year Community Energy Advisor term is complete.*
- *Access to Carbon Neutral Reserve funds to support a dedicated resource and programs will be integral for ensuring the CEEP remains the central tool through which the City of Campbell River will meet its long-term energy and GHG emissions targets.*

*Capital Funding*

- *Currently, funding available for capital projects is sufficient and no changes are needed to the funds supporting capital projects. Consider the actions listed in Section 2 – Priority Actions – for a list of capital projects that are recommended for implementation in the near-term.*
- *If there is an interest in enhancing capital projects, consider allocating a portion of the Gas Tax Community Works Fund for capital projects that advance CEEP implementation. (e.g. approximately \$50,000 per year is earmarked for energy retrofits on civic facilities, and some money is already spent on other items such as active transportation infrastructure).*

## SECTION 5: EMBEDDING THE CEEP INTO COMMUNITY PLANS AND PROCESSES

The City of Campbell River can create the conditions to implement the CEEP by embedding it into local plans, policies and processes.

The following recommendations provide insights on how to embed the CEEP into:

- New governance models
- Staff work plans
- Plans and policies, processes and budgets

### ESTABLISHING A GOVERNANCE FRAMEWORK TO SUPPORT CEEP IMPLEMENTATION

The governance of the CEEP is critical for implementation. It provides a process for overseeing the implementation of the plan and provides a platform for council, city staff and stakeholders to engage with the plan. Without an established governance framework, there is a risk that the CEEP will continue to be implemented on an ad-hoc basis and that the City of Campbell River will not meet its long-term energy and GHG targets.

#### GTI RECOMMENDATIONS

A governance framework should be considered at the level of Council, staff and stakeholders.

##### Council-Level Governance

- *It is recommended that Council should task the Advisory Planning and Environment Commission (APEC) with oversight of CEEP implementation. This can be implemented by revising the constitutional bylaw of the APEC.*
  - *Primary Tasks of the APEC:*
    - *Act as community leaders for the CEEP*
    - *Be the voice of the CEEP in the community*
    - *Meet regularly to oversee the status of CEEP implementation (e.g. quarterly)*
  - *The CEEP could also be presented to the Community Services Recreation and Culture Commission*
  - *APEC reports back to Council on CEEP implementation at least twice a year*
  - *CEEP implementation progress should be reported to council formally by the Community Energy Advisor on an annual basis via the annual CEEP implementation report and the CARIP report*
  - *CEEP implementation progress should be reported to council on a milestone basis through the Council Bulletin and Lunch and Learn opportunities*

##### Staff-Level Governance

- *Ensure that the Community Energy Advisor is consulted with regards to other plans and their implications with energy and emissions*
- *Ensure that a staff person is designated to oversee CEEP implementation beyond the 2-year term of the current Community Energy Advisor*
  - *CEEP implementation requires broad engagement across local government departments, as well as among community stakeholders*
  - *A dedicated staff person can act as the project manager, overseeing the implementation of community-wide energy initiatives*
  - *Consider also designating a staff person to oversee Corporate (as opposed to Community) energy planning.*
- *Establish a staff implementation committee*

- Consider establishing a committee of staff members involved in the implementation of the CEEP
- Include department managers and staff on the committee
- Consider meeting 1 - 2 times per year
- Primary Tasks:
  - Implementing the cross-sectoral actions in the CEEP and/or liaising with the appropriate community stakeholders to manage implementation
  - Assessing annual CEEP implementation work plans and to identify needs to annual implementation reports. Staff could also use this time to identify new opportunities and course corrections on implementation, if needed.
- Provide a platform for all staff to contribute ideas and feedback on CEEP implementation on an ongoing basis.

Stakeholder-Level Governance

- Establish a stakeholder implementation committee.
  - Consider establishing a committee, or group, to engage stakeholders on an ongoing basis
  - The committee should be open to any stakeholders interested in implementation
  - Consider meeting once per quarter to provide stakeholders with updates on CEEP programs and to provide and opportunity to offer input

EMBEDDING THE CEEP INTO STAFF WORK PLANS

- The CEEP crosses many departmental and organizational boundaries and consequently, a process should be in place to engage staff on an ongoing basis.
- In some cases, actions within the CEEP have been embedded into other community plans and staff work plans, for example, the transportation plan and the CEEP are well-integrated and a number of actions identified in the CEEP are being implemented by the transportation department.
- There is an opportunity to enhance the level of awareness of the CEEP among staff as the CEEP identifies a number of actions that can be considered in staff work plans.
- Currently, the CEEP has implications for the following staff/departments (note this list may not be exhaustive):
  - Community Energy Advisor (See Appendix V)
  - Co-op student
  - Finance department
  - Communications department
  - Planning and development
  - Parks and recreation department
  - Utilities department
  - Transportation department
  - Waste Management department
  - Asset Management department
  - Economic Development department
  - Comox Strathcona Waste Management
- The CEEP impacts these staff persons in two ways: (1) the actions in the CEEP may relate to staff work plans; and (2) staff may have access to the data needed to report on the CEEP KPIs.

## GTI RECOMMENDATIONS

- **Work plans:**
  - The Community Energy Advisor should be tasked with political, internal staff and community stakeholder engagement relating to the CEEP, as well as identifying opportunities to embed the CEEP into plans, policies and budgets when the opportunities arise. See Appendix V for additional tasks for consideration which support this implementation strategy.
  - Staff should be advised to consult the CEEP to inform work plans.
- **Convening:** Senior staff and staff from the departments implicated in the CEEP should be engaged 1-2 times per year to receive updates on CEEP implementation and to advise on future iterations of the CEEP. This should be coordinated by the Community Energy Advisor.
- **Key Performance Indicators:** Staff should be responsible for collecting KPI data and reporting the data to the Community Energy Advisor once per year.
- **Annual Reporting:** The Community Energy Advisor should lead the development of an annual implementation progress report summarizing progress made toward primary and secondary KPIs. The implementation report should be submitted to council, staff, and community stakeholders alongside the CARIP report.

## EMBEDDING THE CEEP INTO COMMUNITY PLANS AND POLICIES

Community energy planning is a unique process that unlike most local government initiatives, crosses many departmental and organizational boundaries. CEEPs, however, often fall short on being integrated into the existing plans and policies in local government because there typically lacks a process to integrate the CEEP once it has been adopted by council.

## GTI RECOMMENDATIONS

- **Cast a wide net, and be strategic:** *Identify all opportunities to integrate the CEEP into plans, policies and bylaws and immediately after CEEP adoption. The Community Energy Advisor should scan opportunities on an ongoing basis. Consider when some or all of the plans will be renewed and embed the CEEP strategically. Note that these actions have been included in Section 3: Priority Actions.*
  - *Near-term opportunities include:*
    - *The City of Campbell River is currently in the process of reviewing the Official Community Plan and is implementing Refresh Campbell River. These two plans and processes provide immediate opportunities to embed the CEEP.*
    - *Consider adopting the existing draft Development Permit Area for Energy Conservation: Microclimate & Passive Solar and Energy Efficient Buildings.*
    - *Consider the zoning bylaw review undertaken by the Community Energy Association in Q1 2016*
    - *Consider ways to incorporate CEEP principles into the building / development process more. E.g.:*
      - *Staff to include a summary in reports to Council about how development applications support or detract from the CEEP.*
      - *Requiring land owners/developers to include a summary detailing how development permit applications / site plans / rezoning applications support or detract from the CEEP objectives.*
      - *Requiring the use of the Sustainability checklist for rezoning and development permit applications, and building permits. Consider tying this to incentives.*
    - *Embedding the CEEP into Council's Strategic Plan.*
    - *Embed the CEEP into other community plans (e.g. Transportation Plan, Urban Forest Management Plan, Housing Plan, Solid Waste Plan, Economic Development Plan, Sustainability Plan)*
  - **Act quickly:** *Amend the identified plans, policies, bylaws and regulations as soon as possible after the opportunities have been identified to ensure that goals and actions included in the CEEP remain top of mind for Council, all staff and community stakeholders.*
  - **Be adaptable:** *Consider that the CEEP is a living document and will be renewed and amended over time. Include clauses within policies and plans that allows changes to be made to the CEEP without requiring additional amendments, for example, "the goals and actions of the Community Energy and Emissions Plan, as amended from time to time".<sup>13</sup>*
  - **Be explicit:** *Refer to the CEEP goals and objectives within each plan, policy, bylaw and regulation in a specific way, so that the direction set by the CEEP and its impact on the plan is clear.*

<sup>13</sup> This can be done in sections where CEEP policies interact with other plans and programs, e.g. those related to growth management, mixed land use, increased density, active transportation, transit, solid waste management, facilities management, and parks and recreation.

## SECTION 6: STAKEHOLDER ENGAGEMENT

CEEPs are typically led by local government and implemented by the community. Effective and ongoing community stakeholder engagement is central to the success of a CEEP. Some of the most critical stakeholders to engage in implementation include, but are not limited to:

- Electric, natural gas and thermal energy distributors
- The real estate sector, including developers, homebuilders, building owners and operators, architects and real estate agents
- Provincial and territorial government and their respective agencies
- Non-governmental organizations
- Academic institutions
- School districts
- Health Authorities
- Fuel suppliers
- Chambers of commerce and local Business Improvement Areas (BIAs)

All stakeholders will have varying levels of interest in the CEEP based on their core business. Consider mapping stakeholders before you begin engaging with them.

### GTI RECOMMENDATIONS

- Designate a lead to engage community stakeholders (e.g. the Community Energy Advisor)
- Develop a stakeholder engagement committee and follow the steps identified below:
  - Establish a Terms of Reference for the committee.
  - Identify all community stakeholders that may have a role to play in CEEP implementation (consider stakeholders that may lead project or program implementation, education and outreach, provide KPI data, provide expertise or financial support, etc.).
  - Consider mapping stakeholders within a matrix (see the stakeholder mapping matrix template below) to determine (1) their willingness to engage and (2) their level of influence with respect to implementation. Often times it is good practice to focus first on the stakeholders with a high influence on energy and GHG emissions. As well, track stakeholder contact information and any relevant notes using a template such as the Tools 4 Dev Stakeholder Analysis Matrix. This matrix can help with future engagement and can also help to avoid a loss of internal corporate knowledge in the event of staff turnover or attrition.  
Stakeholder Analysis Matrix: <http://www.tools4dev.org/resources/stakeholder-analysis-matrix-template/>  
Additional tools are available at [www.tools4dev.org](http://www.tools4dev.org).
  - Once stakeholders have been identified and mapped according to their perceived willingness to engage and their level of influence, begin reaching out. Consider the table below “Approaches for Stakeholder Engagement” and develop a plan to engage with the priority stakeholder groups identified. Keep the following in mind when engaging with stakeholders:
    - Establish a relationship with community stakeholder as soon as possible.
    - Use plain, clear language when engaging with stakeholders. If possible use terminology that community stakeholders are familiar with.
    - Not everyone will be supportive of the CEEP. Recognize personal dynamics and focus engagement efforts on allies. With that in mind, offer ongoing opportunities to inform and engage all stakeholders.
    - The CEEP may surface debates among stakeholders. Keep in mind that the overall aim of the CEEP is to improve the overall quality of life for the community. Find ways to keep the conversation positive.
    - Collaborate with community stakeholders to identify actions to include in the plan.
  - In addition to the approaches identified in Step 4, consider establishing a broader stakeholder committee, comprised of all stakeholders interested in the CEEP, to offer ongoing (e.g. quarterly) CEEP updates.

## STAKEHOLDER MAPPING MATRIX TEMPLATE

Willingness to Engage		<i>It is often good practice to begin engaging stakeholders that fall within this quadrant.</i>
		You can also consider engaging stakeholders that fall within this quadrant.
	Low	High
Level of Influence on CEEP Implementation		

**Table: Approaches for Stakeholder Engagement**

<p>One-on-one meetings</p>	<ul style="list-style-type: none"> <li>– If the stakeholder group identified has not yet been engaged in the CEEP, consider setting up a one-on-one meeting to brief the stakeholder and to establish a point of contact.</li> </ul> <p>When meeting stakeholders for one-on-one meetings consider the following three questions:</p> <ul style="list-style-type: none"> <li>– What are you trying to achieve with your CEEP?</li> <li>– What is the stakeholder trying to achieve?</li> <li>– Where do your priorities overlap?</li> </ul> <p>Click <a href="#">here</a> for a downloadable document of additional questions for consideration.</p>
<p>Draw on stakeholders to build support for CEEP implementation</p>	<ul style="list-style-type: none"> <li>– Engage with stakeholder groups that are already engaged in, and even championing the CEEP</li> <li>– Identify opportunities for these stakeholder groups to garner further support for CEEP implementation</li> <li>– For example, consider having these groups present to council or APEC meetings to report back on implementation successes, and to communicate the benefits of CEEP implementation.</li> </ul>

Workshops and focus groups	<ul style="list-style-type: none"> <li>– Obtain targeted feedback from stakeholders through workshops and focus groups.</li> <li>– Workshops should take place in person.</li> <li>– Focus groups can occur in-person, by teleconference or via online platforms. Consider inexpensive and user friendly tools such as Survey Monkey or online community engagement tools.</li> </ul>
Ongoing phone and email correspondence	<ul style="list-style-type: none"> <li>– In some cases, obtaining information, data and buy-in from stakeholders will require frequent and ongoing correspondence.</li> </ul>
Attend stakeholder meetings –e.g. association meetings, rotary meetings, etc.	<ul style="list-style-type: none"> <li>– Participate in meetings hosted by stakeholders and find opportunities to present information about the CEEP and obtain their support. When possible, sign up the CEEP as a routine agenda item for regularly scheduled meetings (e.g. association meetings).</li> <li>– Consider that many stakeholder groups may be unfamiliar with the CEEP process and as a result should be engaged early and often.</li> <li>– Be sure to always provide a platform for two-way correspondence between stakeholders and the CEEP team.</li> </ul>
Charrettes	<ul style="list-style-type: none"> <li>– Use the Charrette technique to facilitate a visioning process, and to identify actions to consider in the CEEP. All stakeholders should be involved in the CEEP vision, determining energy and GHG emissions reduction targets and when prioritizing actions</li> </ul>

## APPENDIX I – KEY PERFORMANCE INDICATORS

The following KPIs and associated targets have been determined by consolidating KPIs from the 2011 CEEP and the KPIs from the *Sustainable Campbell River: Framework, Campbell River's Integrated Community Sustainability Plan (ICSP)*. Sources of data and the level of effort required to monitor the KPIs was determined through one-on-one meetings with staff and stakeholders. The KPIs were reviewed with staff and the CEEP Steering Committee.

Key Performance Indicator	Status and Targets	Data Source and Frequency	Department or Stakeholder Responsible for Monitoring	CEEP Actions Monitored	Source document for indicator		Correlation with other documents
					CEEP	ICSP	
<b>Primary Energy &amp; GHG Indicators</b>							
Community energy consumption	20% by 2020 25% by 2040 30% by 2060	<b>Source:</b> BC Community Energy & Emissions Inventories (CEEI)  <b>Frequency:</b> Approximately every 2-4 years – when CEEI data are released	Community Energy Advisor	Monitors all actions and the effectiveness of plan overall	Suggested	Directly	– Sustainable Official Community Plan (OCP) – Climate Action Charter
Community GHGs, total, & per capita	Community: 25% by 2020 35% by 2040 40% by 2060  Per capita: 35% by 2020 55% by 2040 65% by 2060						– OCP – Climate Action Charter
GHG emissions by sector (transportation,	Solid waste GHG emissions per capita:					Monitors actions affecting each sector, identifying successes	

Key Performance Indicator	Status and Targets	Data Source and Frequency	Department or Stakeholder Responsible for Monitoring	CEEP Actions Monitored	Source document for indicator	Correlation with other documents
buildings, solid waste), total & per capita	0.6 tonnes in 2007  0.1 tonnes target (no year given)  No other targets determined yet.			and opportunities for improvement		
Total community-wide energy expenditures	Currently approx. \$110 million/year.  Target not yet determined.  Requires further data.	<b>Source:</b> CEEI, & local energy prices  <b>Frequency:</b> Approximately every 2-4 years – when CEEI data are released		Monitors all actions and the effectiveness of the plan overall		– OCP – Strategic Plan (economic growth)
Community GHGs per unit of GDP (i.e. GHG intensity of the local economy)	Targets not yet determined.  Requires further data.	<b>Source:</b> CEEI, & local GDP information  <b>Frequency:</b> Approximately every 2-4 years – when CEEI data are released		Monitors all actions and the effectiveness of the plan overall, whilst taking economic growth into account		
Total corporate GHG emissions for Corporate (i.e. City) operations	Target not yet determined.	<b>Source:</b> City of Campbell River Inventories – Community Planning and Development Services Department - Clerk Technician		Monitors progress City is making in leading by example, and building its institutional capacity to work on this challenging issue		– Climate Action Charter

Key Performance Indicator	Status and Targets	Data Source and Frequency	Department or Stakeholder Responsible for Monitoring	CEEP Actions Monitored	Source document for indicator		Correlation with other documents
		<b>Frequency:</b> Annual					
<b>Land Use</b>							
Density: Residential units per hectare	3.6 in 2007 4.3 by 2020 6.9 by 2040	<b>Source:</b> Planning Department <b>Frequency:</b> Annual	Community Planning and Development Services	Monitors most land use actions	Directly		– OCP – Climate Action Charter
Dwellings within a 10 minute walk to local retail / food store	68% in 2020 88% in 2060						
Share of Multi-family dwellings	35% in 2007 36% in 2020 40% in 2040 43% in 2060						
<b>Transportation</b>							
Total Annual Vehicle Kilometers Travelled for all personal transport	359,705,688 in 2007 420,000,000 in 2020 525,000,000 in 2040 631,000,000 in 2060	<b>Source:</b> -BC Community Energy & Emissions Inventories (CEEI)  -Insurance Corporation of British Columbia (ICBC)  <b>Frequency:</b> Approximately every 2-4 years – when CEEI data are released	Transportation Department and Community Planning and Development Services	Monitors most transportation actions	Directly		– OCP – Climate Action Charter
Annual Vehicle Kilometers Travelled, per household, for all personal transport	29,266 in 2007 29,700 in 2020 29,300 in 2040 29,100 in 2060						

Key Performance Indicator	Status and Targets	Data Source and Frequency	Department or Stakeholder Responsible for Monitoring	CEEP Actions Monitored	Source document for indicator		Correlation with other documents
Commute to work mode split	<p>In 2007:</p> <p>76.8% by single occupant vehicle</p> <p>9.6% carpool</p> <p>2.7% bus</p> <p>1.4% bike</p> <p>Bike:</p> <p>5% by 2020</p> <p>10% by 2040</p> <p>20% by 2060</p> <p>No other targets determined yet.</p>	<p><b>Source:</b></p> <p>-Census Data</p> <p>-Public survey data</p> <p><b>Frequency:</b></p> <p>-Approx. every 5 years by census</p> <p>-1-2 years by public survey</p>	<p>Transportation Department</p> <p>and</p> <p>Community Planning and Development Services</p>				
Number of transit trips	<p>510,000 in 2007</p> <p>Target not yet determined.</p>	<p><b>Source:</b></p> <p>-BC Transit</p> <p>-Transportation Department</p> <p><b>Frequency:</b></p> <p>Annual</p>	Transportation Department	Transit	Directly	Directly	<p>– OCP</p> <p>– Climate Action Charter</p>
Bike lane kilometers	<p>85 km in 2011</p> <p>Target not yet determined</p>	<p><b>Source:</b></p> <p>-Transportation Department</p> <p>-Planning Department</p> <p><b>Frequency:</b></p> <p>Annual</p>	Transportation Department	Improving cycling infrastructure		Directly	<p>– OCP</p> <p>– Climate Action Charter</p>

Key Performance Indicator	Status and Targets	Data Source and Frequency	Department or Stakeholder Responsible for Monitoring	CEEP Actions Monitored	Source document for indicator		Correlation with other documents
Sidewalk and walking path kilometers	150 km in 2011  Target not yet determined			Improving walking infrastructure			
Kilowatt hours (kWh) per year used recharging vehicles at public charging points		<b>Source:</b> Asset Management Department <b>Frequency:</b> Annual	Asset Management Department	Electric vehicle infrastructure		Directly	
Infrastructure to promote low carbon vehicles	Target not yet determined	<b>Source:</b> Community Planning and Development Services Department <b>Frequency:</b> Annual	Community Planning and Development Services Department		Suggested	Directly	
<b>Energy Efficiency in Buildings</b>							
Average energy demand intensity for residential buildings (Gigajoules/meter squared/year)	Base year:  0.69 in 2007  Targets:  0.57 in 2020  0.46 in 2040  0.36 in 2060	<b>Source:</b>  -BC Community Energy & Emissions Inventories (CEEI)  <b>Frequency:</b>  Approximately every 2-4 years – when CEEI data are released		Monitors actions related to energy efficiency in residential buildings	Directly	Directly	– OCP – Climate Action Charter

Key Performance Indicator	Status and Targets	Data Source and Frequency	Department or Stakeholder Responsible for Monitoring	CEEP Actions Monitored	Source document for indicator		Correlation with other documents
Average energy demand intensity for commercial buildings (Gigajoules/meter squared/year)	Base year: 1.30 in 2007  Targets: 1.07 in 2020 0.83 in 2040 0.62 in 2060	<b>Source:</b> -BC Community Energy & Emissions Inventories (CEEI)  <b>Frequency:</b> Approximately every 2-4 years – when CEEI data are released		Monitors actions related to energy efficiency in commercial buildings	Directly	Directly	– OCP – Climate Action Charter
Annual building energy retrofits performed	Unknown number in base year.  750 per year (2% of building stock annually) by 2020	<b>Sources:</b> -Building Permit Office  -Planning Department (Power Down Campbell River) -EnerGuide data (Province of BC and/or Natural Resources Canada) <b>Frequency:</b> Annual	Planning Department (Power Down Campbell River)	Monitors most actions related to energy efficiency in buildings	Directly		– OCP
Building scale renewables, % of buildings, no. of solar rooftops or other renewable energy installations, including heat pumps	2 residential and 0 commercial systems in 2007  8 residential and 4 commercial systems in 2011  50 buildings install solar per year by 2035	<b>Source:</b> -Building Permits  -Community Planning and Development Services Department  <b>Frequency:</b> Annual	Community Energy Advisor	Energy retrofit program and promoting building scale renewable heat actions	Directly		– OCP

Key Performance Indicator	Status and Targets	Data Source and Frequency	Department or Stakeholder Responsible for Monitoring	CEEP Actions Monitored	Source document for indicator		Correlation with other documents
No. of homes built with EnerGuide, or to better performing standard e.g. Built Green, Energy Star for New Homes, R-2000, Passive House, etc.	No targets stated in any source document, but useful to track	<b>Source:</b> Province of BC, NRCan or utilities to access EnerGuide data, NRCan to access Energy Star for New Homes and R-2000 data. Canadian Passive House Institute for Passive House data  <b>Frequency:</b> Annual		Increase new building energy efficiency education & outreach and highly energy efficient building pilot actions	Suggested		
<b>Solid Waste</b>							
Total waste generated per household (tonnes / household / year), including waste & recyclables	0.623 in 2007  Modeled target 0.623  No follow up targets identified yet.	<b>Source:</b> -Comox Valley Regional District -Comox Strathcona Waste Management -Emterra  <b>Frequency:</b> Annual	Community Planning & Development Services Department	All waste actions (except backyard burning)	Directly	Directly	– OCP
Residential recycling rate	25% in 2007  65% in 2020	<b>Source:</b> -Comox Strathcona Waste Management  -Return It  -Emterra  <b>Frequency:</b> Annual					

Key Performance Indicator	Status and Targets	Data Source and Frequency	Department or Stakeholder Responsible for Monitoring	CEEP Actions Monitored	Source document for indicator		Correlation with other documents
Organics diversion (% diverted from landfill)	No curbside program and unknown backyard composting rate in 2007  50% in 2020	<b>Source:</b> Not yet available. Contingent on implementation of a local organics facility. <b>Frequency:</b> Re-assess frequency when status of local organics facility is determined.					
<b>Cross- Cutting</b>							
Financial CEM reporting metrics established by BC Hydro (consider expanding upon these at a later date)	Check with BC Hydro	<b>Source:</b> -Community Energy Advisor <b>Frequency:</b> Annual	Community Energy Advisor	Actions in the BC Hydro Community Energy Advisor work plan. E.g. actions related to the built environment, and to integrating the CEEP into local government processes.			Community Energy Advisor materials
Dollars contributed to climate action fund(s), including from energy savings or energy generated	Not yet determined.	<b>Source:</b> Planning Department <b>Frequency:</b> Annual	Community Energy Advisor	Monitors all actions and the effectiveness of CEEP implementation investments overall	Suggested	Directly	– Council Strategic Plan
% urban tree cover	Not yet determined.	<b>Source:</b> Parks and Recreation Department <b>Frequency:</b> Annual	Parks and Recreation Department	Urban Forest Management Plan implementation	Suggested	Directly	– OCP
# urban trees	Not yet determined.						
Value of urban tree cover	Not yet determined.						

## APPENDIX II – CEEP ACTIONS SEGMENTED INTO IMPLEMENTATION STATUS

<b>Transportation</b>		
	Long-Term Pedestrian Plan (MTP)	Street Network Plan - Long Term
	Long-Term Bicycle Plan (MTP)	
<b>Buildings</b>		
	Collaborate with NIEFS + NIC to build capacity of trades	Develop financial and administrative incentives that build support for new green buildings
	Pilot Study: local building types	Small Format Housing Pilot Assessment
	Market analysis	
<b>Solid Waste</b>		
	Implement SOCP Sustainable Building and Construction DPA Guidelines	
	Work with CSWM - Waste Reduction Building Construction and Demolition Study	
<b>Cross-Cutting</b>		
	Develop a Community Carbon Offset Framework	Integrate GHG and Lifecycle GHG Analysis in the City's Procurement Process

	Municipal Cost and Carbon Management Policy	Annual Budget Submissions to Incorporate GHG and Life Cycle Cost Analysis
	Integrate Lifecycle Cost + GHG Implications into Capital Planning Process	
<b>Land use</b>		
	Focus Growth in Existing Areas & Strengthen Mixed Use Development	
<b>Transportation</b>		
	Short-term Pedestrian Plan (MTP)	Short Term Transit Strategy
	Short-Term Bicycle Plan (MTP)	Street Network Plan - Short Term
<b>Buildings</b>		
	Community Building Retrofit Program Development	Social marketing strategy: Work with various partners
	Increase building permit office capacity to dispense information on programs	Continue green building energy retrofits on City buildings
	Financial Mechanism Development with utilities	Promote energy labelling of Corporate and Community Buildings at time of sale
	Develop financial incentive program to encourage displacement of heating oil with less carbon intense source	Create Sustainability Checklist with Builders and Developers

<b>Solid Waste</b>		
	Work with the CSWM - Develop a Composting Strategy	
	SOCP DPA Guideline Recycling + Composting Space Requirements - MFR and Commercial	
<b>Cross-Cutting</b>		
	Agricultural Plan Coordination	
<b>Transportation</b>		
	Expansion of Level 2 Vehicle Charging Infrastructure – for electric vehicles and plug-in hybrids	
<b>Buildings</b>		
	Promote LiveSmart BC/EcoEnergy	Sign Letter of Support for Home Energy Labelling BC program
	Integrate Renewable Heat Education + Third Party Incentives into Building Permit Process	Promote Solar Energy Education
	Integrate Renewable Heat Promotion with High Efficiency Wood Stove program	Amend the Building bylaw to include solar ready bylaw
	Social marketing and Engagement Strategy - Green building and energy retrofits	

Energy Supply							
	Explore District Energy in the Hospital Precinct			Develop District Energy Pre-Screening Criteria			
	Sustainable Wood Biomass Study			Complete the Tidal Power Feasibility Study			
Solid Waste							
	Extending Producer Responsibility for Packaging and Product Stewardship			Review Existing Landfill Gas Management Approach + Opportunities for Energy Generation			
Cross-Cutting							
	Urban Forest Management Plan Review						
	Actions have been completed or are ongoing.		Actions are being considered or have started.		Actions have not yet started		Actions have been identified as not feasible

## APPENDIX III – RESULTS FROM THE ACTION PRIORITIZATION EXERCISE

The following tables describe the level of priority assigned to the actions in the CEEP by the CEEP Steering Committee. While related to Section 3, these tables remain as an historical document recognizing the Steering Committees contribution, since these tables informed the priority order of the action items listed in Section 3. The level of priority is based on economic impact potential, energy and GHG impact potential, the level of effort required and current status. All actions were assigned level of priority, on a scale of 0 – 5 where 0 = do not implement and 5 = the action is a high priority and should be implemented as soon as possible.

### LAND USE STRATEGIES & ACTIONS

Strategy	Actions	Estimated impacts, effort, & status	Oversight and status	Comments	Vote, 0-5. 5= priority! 0 = no way!
Long-term residential growth is planned as mixed use, infill, or redevelopment sites within existing urban areas and/or within the urban containment boundary	<ul style="list-style-type: none"> <li>Encourage more balance between multi- &amp; single family</li> <li>Locate new residences in areas accessible to community services &amp; facilities e.g. downtown</li> <li>Permit new growth &amp; development based on the ability of the City to service areas appropriately without unnecessary infrastructure cost burdens</li> <li>Protect &amp; manage urban forest and ALR areas Note: this is captured in the cross-cutting section</li> </ul>	GHG impact: High Economic impact: High Level of effort: High Cost:	Development Services  In process	Immediate opportunity to include policies in the OCP / Refresh Campbell River  There is a need to define mechanism for encouraging greater balance between multi and single family	5
Establish hierarchy of compact, mixed-use centres, including	<ul style="list-style-type: none"> <li>Establish village centres in key areas</li> <li>Focus employment growth in downtown core, existing major employment nodes,</li> </ul>	GHG impact: High Economic impact:	Development Services	This strategy is essential to create a long-term livable, vibrant, and prosperous	3

neighbourhood centres, village centres and downtown redevelopment	and along corridors served by rapid and frequent transit	High Level of Effort: High Cost:	In process	community that attracts residents, businesses and tourists	
Establish Development Permit Areas for Form, Character and Performance to reduce energy & emissions	<ul style="list-style-type: none"> <li>Encourage passive heating, cooling, and lighting (e.g. building orientation &amp; solar design)</li> <li>Promote active transportation (e.g. connectivity and pedestrian oriented open spaces)</li> <li>Low impact development checklist as Development Information Area designation in OCP.</li> </ul>	GHG impact: High Economic impact: High Level of effort: High Cost:	Yes – part of ongoing OCP review  In process	Should we prioritize new development?	3/4
Reduce residential building energy intensity through optimizing zoning including the size of lots/parcels	<ul style="list-style-type: none"> <li>Allow &amp; encourage secondary suites, laneway cottages and conversions to multi-family structures such as duplexes</li> <li>Focus on improving housing diversity, choice, and affordability</li> <li>New: Have a housing strategy to address incentives for bringing illegal suites up to code</li> </ul>	GHG impact: High Economic impact: high Level of effort: high Cost:	Yes – part of ongoing OCP review  In process	Language change needed to policy – focussed on infill	2/3
NEW IDEA – Allow small or tiny homes on small lots, near existing	<ul style="list-style-type: none"> <li>Review zoning bylaw</li> <li>Focus on improving housing diversity, choice, and affordability</li> </ul>	GHG impact: High Economic impact: high	New idea - N/A	No building code restrictions on minimum house size. Only issue is community zoning.	1

or proposed centres		Level of effort: high Cost:		-housing supply non-issue in CR and prices are affordable  -maybe allow in bylaw but don't necessarily promote	
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## TRANSPORTATION STRATEGIES & ACTIONS

Strategy	Actions	Estimated impacts, effort, & status	Oversight and status	Comments	Vote, 0-5. 5= priority! 0 = no way!
Improve pedestrian experience through infrastructure investments and land use planning	<ul style="list-style-type: none"> <li>• Increase sidewalk coverage and make other pedestrian infrastructure improvements</li> <li>• Support development of greenways</li> </ul>	GHG impact: High Economic impact: High Level of effort: high Cost:	Transportation  In process	-Tie into parks planning	3/4
Improve bicycle infrastructure including networks, facilities, programs and policies	<ul style="list-style-type: none"> <li>• Enhance bicycle network, including using design guidelines, enhanced on-street bicycle parking, etc.</li> <li>• Consider safe cycle training</li> </ul>	GHG impact: Medium Economic impact: medium	Transportation  In process	Have bicycle education for both sides available	4/5

		Level of effort: high Cost: High		This is about quality of life  Way finding improvements	
Connect existing and planned centres with quality transit	<ul style="list-style-type: none"> <li>● Improve transit services, including rapid transit corridors where helpful</li> <li>● Improve transit infrastructure &amp; facilities</li> <li>● Support strategies that will improve travel information for transit riders, expand transit pass programs, concentrate development around transit nodes and improve accessibility to transit</li> </ul>	GHG impact: High Economic impact: medium Level of effort: high Cost: high	Transportation  In process	Connect to community cultural facilities	4/5
Establish Transportation Demand Management Programs to incent more sustainable transport	<ul style="list-style-type: none"> <li>● Integrated land use and transportation planning</li> <li>● Parking management strategies</li> <li>● Demonstrate City leadership through a diversity of programs for City staff</li> <li>● Education &amp; awareness</li> <li>● Programs &amp; initiatives targeted at major employers &amp; small businesses</li> </ul>	GHG impact: High Economic impact: High Level of effort: High	Transportation  In process	Incentives are important  Provide benefits to City employees – lead by example	5
Expansion of electric vehicle charging infrastructure	<ul style="list-style-type: none"> <li>● Electric vehicle charging stations in key locations</li> </ul>	GHG impact: High Economic impact:	Transportation	Infrastructure exists  Supply / demand of EVs not	2

		medium/high Effort: medium Cost: High	Completed and potential for ongoing	strong Seek partnerships	
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## BUILDINGS STRATEGIES & ACTIONS

Strategy	Actions	Estimated impacts, effort, Cost & status	Oversight and status	Comments	Vote, 0-5. 5= priority! 0 = no way!
Establish a Community Energy Retrofit Program	<ul style="list-style-type: none"> <li>• Develop a program to carry out cost-effective retrofits for existing buildings</li> <li>• Collaborate with other organizations, including utilities</li> <li>• Maximize local job creation opportunities</li> <li>• Phase out carbon intensive heat sources, especially heating oil &amp; propane</li> <li>• Explore incentives for labelling at time of renovation or sale</li> <li>• New: Natural gas to heat pump</li> <li>• Oil to heat pump – can ramp up? (note that programs encouraging heat pumps should</li> </ul>	GHG impact: High Economic impact: High Level of effort: Medium Cost: Medium/High	Climate & Energy Specialist and new Community Energy Adviser  In progress - ongoing	This strategy is essential for long-term GHG emission savings from community buildings.  Many actions of this strategy are complete. The City conducted a very successful Phase 1 of “Power Down Campbell	4/5

	<p>be marketed on the cost benefits and air conditioning)</p> <ul style="list-style-type: none"> <li>Using the Fire department thermal imaging camera is a good way to visually show people how heat is being lost from their homes at cooler times of the year.</li> <li>Municipal co-incentives (e.g. property tax) can link up with utility incentives</li> <li>Building envelope improvements should be a priority</li> </ul>			<p>River”.</p> <p>Phase 2 of the program is launching now.</p>	
<p><b>NEW ACTION:</b> Continuous Optimization Program for large buildings</p>	<ul style="list-style-type: none"> <li>The City could do an RFP for continuous optimization of its Corporate buildings, and ask large buildings in the community to partner with them in order to reduce costs</li> <li>Utilities may provide incentives</li> </ul>	<p>GHG Impact: Medium</p> <p>Economic impact: Medium</p> <p>Level of Effort: Low</p> <p>Cost: Low</p>	<p>Could be something new Corporate Energy Manager could take on?</p>	<p>In experience of School District and Island Health, significant savings can easily be found in large buildings. You need a good firm to do it though.</p>	<p>3/5</p>
<p>Increase new building efficiency</p>	<ul style="list-style-type: none"> <li>Phase in a program to advance energy performance in new buildings that are sensitive to municipal &amp; private sector costs</li> <li>Require a sustainability checklist to be completed as a condition of OCP &amp; Zoning Bylaw amendments, rezoning apps, subdivision, and development permits</li> <li>Develop financial &amp; administrative incentives (including for labelling), as appropriate</li> <li>Encourage Province to ramp up BC Building Code more</li> </ul>	<p>GHG impact: Medium</p> <p>Community \$\$\$ impact: Medium</p> <p>Level of effort: medium</p>	<p>Yes – new Community Energy Adviser</p> <p>In process</p>	<p>This strategy is essential for long-term GHG emission savings from community buildings. Progressive changes to the BC Building Code is likely to make this happen anyway, but the City can help its building community prepare.</p> <p>The Community Energy</p>	<p>4</p>

	<ul style="list-style-type: none"> <li>● ENERGY STAR® for New Homes. What can be done for residential?</li> <li>● Could look at a flexible incentive program for incenting energy efficient new homes</li> <li>● Note that it would be prudent to wait until there is more clarity on the BC Building Act and Energy Step Code, before starting this action. This should occur by early 2017</li> </ul>			Association has provided a report to the City on this, and also conducted a builders' workshop.	
Promote building scale renewable heat	<ul style="list-style-type: none"> <li>● Phase in a program to advance building scale renewable heat in new &amp; existing buildings</li> <li>● Air source heat pumps, solar, geo-exchange, &amp; low impact biomass</li> <li>● Create financial tools</li> <li>● Ties in with Power Down Campbell River. Should focus primarily on air source heat pumps with electric back up (geo &amp; solar should not particularly be priorities for residential).</li> </ul>	<p>GHG impact: High</p> <p>Economic impact: Medium</p> <p>Level of effort: Low</p> <p>Cost:</p>	<p>Climate &amp; Energy Specialist</p> <p>In process</p>	<p>This strategy is essential for long-term GHG emission savings from community buildings.</p> <p>City is implementing a program to encourage oil to heat pump conversions, has passed the solar ready bylaw, has integrated it into the building permit process and has promoted high efficiency wood stoves.</p>	5
Education and outreach to maximize buildings sector impact	<ul style="list-style-type: none"> <li>● Build community capacity, e.g. education for builders, developers, realtors, etc. Particularly realtors (as builders have to get training now to maintain their licence)</li> <li>● Collaborate with NIEFS &amp; NIC to build capacity of trades. &amp; also look at students who will become energy specialists</li> </ul>	<p>GHG impact: High</p> <p>Economic impact: Medium</p> <p>Level of Effort: Low</p>	<p>Climate &amp; Energy Specialist, and new Community Energy Adviser</p>	<p>Energy efficiency workshops for builders &amp; building officials, and for realtors, have taken place in 2016. Internal capacity at the City has been building</p>	3/3.5

	<ul style="list-style-type: none"> <li>Build internal capacity at the City</li> </ul>		In process	and will continue to grow. More workshops, & building capacity of trades can take place.	
Encourage passive design	<ul style="list-style-type: none"> <li>Use land use policies to promote passive design external to the building. Building orientation, landscaping, etc.</li> </ul>	<p>GHG impact: Medium</p> <p>Economic impact: Medium</p> <p>Level of effort: Low</p> <p>Cost:</p>	<p>Community Planning &amp; Development Services</p> <p>In process</p>	<p>The City has a draft Development Permit Area for Energy Conservation: Community Energy and Emissions, which establishes an excellent framework. The Community Energy Association reviewed it and commented</p> <p>Can this be tied into the Energy Step Code?</p>	2/5
NEW IDEA – Promote the use of wood as a preferred building material	<ul style="list-style-type: none"> <li>Wood is currently the material of choice for low density residential, but policy levers could encourage it for mid-rise buildings</li> </ul>	<p>GHG impact: Medium</p> <p>Economic impact: High</p> <p>Level of effort: Low</p> <p>Cost: Low/Medium</p>	N/A – new idea	<p>Using wood helps store carbon. Using wood for mid-rise buildings may also be cheaper than the status quo, but is a novel concept. The City could encourage a pilot project to help the local building industry learn, as other BC local governments have done. Apart from potentially reducing developer costs,</p>	2.5/3

				<p>this could help support the forestry industry.</p> <p>Maybe more research needed. Ripple Rock school experience wasn't great.</p>	
<p>NEW IDEA – Pilot highly energy efficient building project</p>	<ul style="list-style-type: none"> <li>• The City of Campbell River should pilot a highly energy efficient building project (e.g. Passive House standard). The purpose is to help the building / development community become accustomed to more energy efficient building standards.</li> <li>• This could proceed through building a new or refurbishing a City owned building, through a partnership with a local firm, or through providing incentives to encourage more energy efficient new construction.</li> <li>• If possible, ensure that the development is in a compact, mixed-use location within the community.</li> <li>• Look at offering local Passive House training for builders, as Regional District of Nanaimo has done</li> </ul>	<p>GHG impact: Medium</p> <p>Economic impact: Medium Level of Effort: Medium</p> <p>Cost:</p>	<p>Potentially with the new Community Energy Adviser</p> <p>New idea not yet started</p> <p>Other delivery agents:</p> <p>Habitat for Humanity</p> <p>Robron Field House</p>	<p>Pilot projects can help the builder / development community to learn. In addition, there can be no substitute to visiting demonstration projects. External funding sources could likely support an initiative like this.</p> <p>Other ways to deliver:</p> <p>Habitat for Humanity, and Robron Field House.</p> <p>Recommendation is to start small so local builders can see how it's done and replicate, e.g. Robron Field House or new Fire Hall.</p>	<p>4/5</p>
<p>NEW IDEA – Encourage green roofs</p>	<ul style="list-style-type: none"> <li>• Pursuing green roofs on City owned buildings</li> <li>• Policies to pursue green/useable/accessible roofs as a component of new building</li> </ul>	<p>GHG impact: Medium</p> <p>Economic impact:</p>	<p>N/A new idea not yet started</p>	<p>Further benefits with community beautification, health (clean air), and</p>	<p>2.5/3</p>

	<p>design in the downtown area</p> <ul style="list-style-type: none"> <li>Consider expanding existing incentive programs (e.g. Downtown Façade Improvement Program) to include green roofs.</li> </ul>	<p>Medium</p> <p>Level of Effort: Medium</p>		<p>biodiversity.</p> <p>Over the long-term, economic benefits may be medium due to community beautification.</p> <p>School district has white coating on roofs instead to help with cooling. Much cheaper than green roofs.</p>	
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## ENERGY SUPPLY STRATEGIES & ACTIONS

Strategy	Actions	Estimated impacts, effort, & status	Oversight and status	Comments	Vote, 0-5. 5= priority! 0 = no way!
Explore district energy in key development areas	<ul style="list-style-type: none"> <li>Encourage sufficient densities and mixed-use developments to support district energy and explore potential in new or large infill, high density, mixed use developments</li> <li>Strengthen local knowledge</li> <li>District energy was considered for the hospital and not pursued</li> </ul>	<p>GHG impact: High</p> <p>Economic impact: Low</p> <p>Level of Effort: High</p> <p>Cost: high</p>	<p>N/A</p> <p>Not yet started</p>	<p>Although this strategy was in CEEP V1, it's not recommended that this be pursued due to the current low price of natural gas and poor economics. A possible exception could be if a facility with high heat requirements located adjacent to Capital Power.</p>	1/2
Establish a Biomass Energy Agenda using	<ul style="list-style-type: none"> <li>Support the Future of Forestry Task Force in development of a local</li> </ul>	<p>GHG impact: High</p>	N/A	<p>This strategy was in CEEP V1, and a Sustainable Wood Biomass Study was</p>	1/2

local, sustainably-derived inputs	<p>wood biomass strategy. E.g. diverting clean wood from construction &amp; demolition waste, and exploring development of a wood pellet plant.</p> <ul style="list-style-type: none"> <li>• Explore local biogas opportunities</li> </ul>	<p>Economic impact: Low (high for pellet plant if feasible)</p> <p>Level of effort: high</p> <p>Cost: high</p>	Not yet started	<p>completed. The economics of most actions are likely marginal due to the low price of natural gas. The wood pellet industry may identify Campbell River as a good potential site for a future pellet mill, and the City could treat this application favourably.</p>	
Develop a Local, Long-term Low Carbon Power Agenda	<ul style="list-style-type: none"> <li>• Promote Campbell River as a hub for tidal power research and development</li> <li>• Facilitate the development of one or more wind turbines</li> <li>• Work with Capital Power to explore options for biomass fuel switching – this is the only action in this strategy that the workshop group are interested in at all (note that there may be issues with burning wood waste that has a salt content.)</li> </ul>	<p>GHG impact: Low (high for Capital Power Biomass fuel switching)</p> <p>Economic impact: low (high for Capital Power biomass fuel switching)</p> <p>Level of effort: high</p> <p>Cost: high</p>	Studies completed	<p>Wind turbine and tidal power studies have been completed. Due to low price of electricity and high cost of electricity from tidal power or small to mid-sized wind turbines, economics are unlikely to be feasible within City boundaries (projects may find it feasible to locate outside of City boundaries). It may be possible to work with Capital Power, BC Hydro, and the Province to facilitate fuel switching for Capital Power.</p>	1/2
NEW IDEA – Fund for climate action initiatives from a clean power project	<ul style="list-style-type: none"> <li>• A fund for climate action initiatives would greatly benefit implementation</li> <li>• Hydro electric generation (e.g. in the drinking water infrastructure), or energy utilization of landfill gas, could provide sufficient revenue</li> <li>• A revolving fund could also be created from savings on energy bills from energy retrofit projects, where</li> </ul>	<p>GHG impact: High</p> <p>Economic impact: high</p> <p>Level of effort: high</p> <p>Cost:</p>	<p>N/A</p> <p>New idea, not yet started</p>	<p>Apart from hydro and landfill gas, it is unlikely that any other energy source could currently generate enough revenue. External funding sources could be available for these initiatives.</p> <p>Many School Districts and Health Authorities have revolving funds. In some parts of BC it is kind of an</p>	4/5

	the savings then become the capital for new energy retrofit projects.			expectation of those institutions. It may be possible to ask the utilities for seed money to set this up.	
NEW IDEA – Solar powered lighting for airport sign	<ul style="list-style-type: none"> <li>Investigate costs &amp; implement</li> </ul>	<p>GHG impact: Low</p> <p>Economic: Low</p> <p>Level of effort: low</p> <p>Cost: High</p>	<p>N/A</p> <p>New idea, not yet started</p>	<p>This has the potential to be a prominent demonstration project, helping to raise awareness of solar power.</p> <p>Workshop group wonders about looking at other potential sites. Make sure it's highly visible.</p>	3

## WASTE STRATEGIES & ACTIONS

Strategy	Actions	Estimated impacts, effort, cost & status	Oversight and status	Comments	Vote, 0-5. 5= priority! 0 = no way!
Reduce waste generation through changes to products and construction practices	<ul style="list-style-type: none"> <li>Implement Development Permit Area guidelines for lower-impact building design and construction as outlined in the Sustainable Official Community Plan, including to design to allow material re-use, use durable finishes &amp; materials, use salvaged, recycled, reused, renewable, or local materials where possible</li> </ul>	<p>GHG impact: High</p> <p>Economic impact: Medium</p> <p>Level of Effort: Low</p> <p>Cost: Low</p>	<p>Planning and development services</p> <p>Started -</p>	<p>The City is reviewing the Development Permit Area for lower-impact building design &amp; construction.</p> <p>There is an immediate opportunity to provide input on this.</p>	5

	<ul style="list-style-type: none"> <li>Implement a low-waste policy for City events, eliminating “swag”, not using disposable plates, cups, etc.</li> <li>NEW ACTION: Lead by example - Develop procurement policies that support low-waste principles in the CEEP</li> </ul>	<p>GHG Impact: Medium</p> <p>Economic impact:</p> <p>Level of effort: Low</p> <p>Cost: Low/medium</p>	<p>No oversight</p> <p>Not yet started</p>	<p>The City has not yet started a low-waste policy for City events.</p> <p>Could distribute swag that encourages low-consumption e.g. reusable bottles, shopping bags etc.</p>	3/4
	<ul style="list-style-type: none"> <li>Encourage senior governments to establish stronger policies on packaging and extended producer responsibility for all products</li> </ul>	<p>GHG Impact: High, indirect</p> <p>Economic impact: low/medium</p> <p>Level of effort: High for return</p> <p>Cost:</p>	<p>No oversight</p> <p>Completed attempts to do this</p>	<p>The City has completed attempts to extend producer responsibility for packaging &amp; product stewardship.</p>	1
Increase re-use and recycling rates, including composting, through policy, programs, and enforcement in conjunction with CSWM	<ul style="list-style-type: none"> <li>Adjust waste collection services to encourage low carbon waste diversion &amp; reduction</li> </ul>	<p>GHG impact: High</p> <p>Economic impact: Medium</p> <p>Level of Effort: High</p> <p>Cost: Medium/High</p>	<p>Community Planning and Development Services Dept</p> <p>Transportation Dept</p> <p>Not yet started</p>	<p>All actions within this strategy are complex because they depend on collaboration between CSWM, SRD and province</p>	3
	<ul style="list-style-type: none"> <li>Establish a composting strategy</li> </ul>	<p>GHG impact: High</p> <p>Economic impact:</p>	<p>Unsure on the status or who is overseeing</p>	<p>There is a pickup service for yard waste from spring-fall</p>	3

		Medium Level of Effort: High Cost: High			
	<ul style="list-style-type: none"> <li>• Create a One Stop Drop Depot, easy to access, targeting re-useable and recyclable materials</li> </ul>	GHG impact: Medium  Economic impact: Medium  Level of Effort: Medium depending on who is the delivery agent  Cost: Depends on delivery agent	Community orgs like Restore	-This would be highly useful	3
	<ul style="list-style-type: none"> <li>• Require space for recycling &amp; composting in large buildings (apartments &amp; commercial)</li> </ul>	GHG impact: Medium  Economic impact: Medium  Level of Effort:  Cost:	Complete for new buildings	Policy in place which requires space for recycling & composting in large <i>new</i> buildings  What is the mechanism?	3
	<ul style="list-style-type: none"> <li>• Establish zero waste building construction &amp; demolition program</li> </ul>	GHG impact: Medium		Not yet studied	3

		<p>Economic impact: Medium</p> <p>Level of Effort: Medium</p> <p>Cost: Medium</p>			
<p>Review Existing Landfill Gas Management Approach + Opportunities for Energy Generation</p>	<ul style="list-style-type: none"> <li>Investigate landfill gas capture &amp; opportunities for energy generation at both existing and future waste management centres, with CSWM</li> </ul>	<p>GHG impact: High</p> <p>Economic impact: Medium – High if revenue is used for climate action initiatives</p> <p>Effort: High</p> <p>COMPLETE</p>	<p>Study completed</p>	<p>Not a viable opportunity and pursuit would rely on CSWM Board</p>	<p>3</p>
<p>NEW IDEA – Eliminate backyard burning to improve air quality</p>	<ul style="list-style-type: none"> <li>Investigate &amp; implement measures to achieve this</li> </ul>	<p>GHG impact: Low</p> <p>Economic impact : Low</p> <p>Level of Effort: Low</p>		<p>Sentiment that if city regulates camp fires this would not be welcomed by the community</p>	<p>1</p>

## CROSS-CUTTING STRATEGIES & ACTIONS

Strategy	Actions	Estimated impacts, effort, & status	In somebody's existing work plan?	Comments	Vote, 0-5. 5= priority! 0 = no way!
Build City's institutional capacity to support low carbon community development	<ul style="list-style-type: none"> <li>Develop a Community Carbon Offset Framework to enable City to meet carbon neutrality by investing in local projects</li> </ul>	GHG impact: High Economic impact: High Level of Effort: Medium Cost: Uncertain	Partially in new CEMs work plan. Also in Community Planning & Development Services Manager's	More information needed on what this entails  Perception is this is complicated	2/3
	<ul style="list-style-type: none"> <li>Develop Carbon &amp; Municipal Financial Management Capacity, e.g. develop municipal cost &amp; carbon management policy; and integrate lifecycle cost and greenhouse gas implications into Capital Planning Process, Procurement, and annual budget submissions.</li> </ul>	GHG impact: High Economic impact: High Level of Effort: Medium Cost: Low	Not started	Leading by example is critical	5
	<ul style="list-style-type: none"> <li>Develop a formal policy on the funding source &amp; use of monies for the Carbon Neutral Reserve Fund. Formalize strategy for use of CARIP funding for City sustainability initiatives that promote GHG reduction (allocated to CPDS Dept)</li> </ul>	GHG impact: High Economic impact: High Level of Effort: Low Cost: Low	No	Possible outcome from the CEEP implementation strategy	5

	<ul style="list-style-type: none"> <li>Report annually on CEEP implementation progress to a Committee / Council</li> </ul>	<p>GHG impact: NA</p> <p>Economic impact: NA</p> <p>Level of Effort: Medium</p> <p>Cost: Low</p>	<p>Somewhat</p> <p>CARIP reporting takes place annually but KPIs from the CEEP are not monitored</p>	<p>Possible outcome from the CEEP implementation strategy</p>	<p>5</p>
	<ul style="list-style-type: none"> <li>Develop a staff plan for coordinating the implementation of the CEEP</li> </ul>	<p>GHG impact: NA</p> <p>Economic impact: NA</p> <p>Level of Effort: Low</p> <p>Cost: Low</p>	<p>No</p> <p>Staff expressed interest in this though there are currently capacity limitations</p>	<p>-Staff check-ins validated that should senior management be supportive of making the CEEP a priority they would be willing to engage in the CEEP</p>	<p>5</p>
	<ul style="list-style-type: none"> <li>Consider incorporating energy conservation policies &amp; procedures into other training programs.</li> <li>Consider implementing the BC Hydro Workplace Conservation Awareness program</li> <li>Consider having awards for staff on energy / environmental issues</li> <li>Consider providing staff with regular opportunities to provide ideas on energy / environmental issues (e.g. meetings or suggestion box)</li> </ul>	<p>GHG impact: NA</p> <p>Economic impact: NA</p> <p>Level of Effort: Low</p> <p>Cost: Low</p>	<p>No</p>	<p>Additional action ideas that appeared by meeting #4</p>	<p>Was not in meeting #2, so no priority assigned to it by the Steering Committee</p>

<p>Coordinate with Agriculture Plan</p>	<p>Many action items in the agriculture plan. Top 3 priorities are:</p> <ul style="list-style-type: none"> <li>• Establish an independent agriculture advisory body as a resource to the industry and to assist the City in aligning local government policy with an emerging agriculture sector</li> <li>• Work with interested land owners to identify options for cost-effective leases and other tenure options that reduce barriers to industry entry</li> <li>• Collaborate with or support City of Campbell River Economic Development where appropriate for economic development in the agriculture industry</li> </ul>	<p>GHG impact: High Economic impact: High Level of effort: Medium Cost: Medium?</p>	<p>Community Planning &amp; Development Services  In process  Rivercorp no longer exists – mandate now taken over by Rose Klukas, Economic Development Officer</p>	<p>Locally grown &amp; processed food has reduced greenhouse gas emissions than food from outside the community. It also supports the local economy by helping keep “food dollars” local.</p>	<p>2/3</p>
	<p>NEW ACTION: OCP and Zoning Review to promote and facilitate urban agriculture</p>	<p>GHG impact: Low/Medium Economic impact: Medium Level of Effort: Low Cost: Low</p>	<p>No</p>	<p>Helps to work toward the above objective.</p>	<p>4/5</p>
<p>Coordinate with Urban Forest Management Plan (UFMP)</p>	<ul style="list-style-type: none"> <li>• Identify &amp; advance/prioritize UFMP action items that lead directly to GHG reductions</li> <li>• NEW ACTION (note: emerged from staff conversations): develop a public engagement campaign to</li> </ul>	<p>GHG impact: Medium/High Economic impact: Medium/High Level of Effort: High</p>	<p>Parks &amp; Rec  Connects to Refresh Downtown  Currently no</p>	<p>There is a need to better communicate the value prop for urban forest  Plan approved in principle by council but</p>	<p>5</p>

	communicate the value of urban forest and to dispel misconceptions	Cost: High	funding to support implementation of the UFMP	no funding avail and lots of resistance from community.	
NEW IDEA – Lead by example with civic operations	<ul style="list-style-type: none"> <li>Review City’s Corporate Carbon Neutral Plan, targets and actions for City buildings, infrastructure, and vehicles</li> <li>Develop &amp; implement a policy for all new City buildings to be built to energy efficiency standards above code</li> <li>Benchmark &amp; publicly report on energy performance of City facilities</li> <li>Implement a staff travel CO2 generation analysis to be completed alongside travel expense forms (as the Agricultural Land Commission does)</li> </ul>	<p>GHG impact: Low/Medium</p> <p>Economic impact: Medium/High</p> <p>Level of Effort: High</p> <p>Cost: High</p>	<p>No</p> <p>Would require hiring a corporate energy manager</p>	<p>Will help to reduce local government operational costs, and therefore help to reduce pressure for tax increases.</p>	5

## APPENDIX IV – CAMPBELL RIVER CEEP IMPLEMENTATION FUNDING

Note that the following table and chart do not include external sources of funding that are not reliably and regularly available, i.e. they exclude all external sources of funding apart from the Climate Action Revenue Incentive Program (CARIP) and Gas Tax.

Funding Source	Considerations	Eligible spending	Non-eligible spending
BC Hydro Community Energy Manager Funding/Resources	2 year program.  50% BCH funding, 50% Carbon neutral reserve fund / CARIP	Community Energy Adviser	- Capital projects  - Programs
Climate Action Revenue Incentive Program (aka carbon tax rebate)	Ongoing  ~\$30k/yr (\$28k in 2015)  Can it be ring fenced, through internal policy?	Carbon neutral projects / GHG reduction initiatives / co-op students (there is an internal financial policy on this)  Already allocated in 2017 for Power Down and the Community Energy Adviser	
Sustainability Studies Funding	\$10k/yr	Research, policy work – external consultants	- Capital projects  - Programs  - Staff time
Carbon Neutral Reserve Fund, which is funded through: <ul style="list-style-type: none"> <li>Community Works Fund (currently)</li> </ul>	Balance currently approximately \$258,000 as of beginning of 2016. Draw on fund for Power Down CR estimated to be:	Power Down Campbell River (2016-2017 program)	- Programs  - Staffing

<ul style="list-style-type: none"> <li>Gaming contributed to this fund in 2012-2015</li> </ul>	<p>\$71,000 2016 \$88,000 2017</p> <p>Therefore available balance at beginning 2018 estimated at: \$179,000</p> <p>Note: This includes the annual \$40k contribution in 2018.</p> <ul style="list-style-type: none"> <li>- Annual contribution \$40k/yr, drawn from the Community Works Fund at \$25 / tonne for Corporate GHGs. Can't necessarily spend that much as must create business case for Council approval to spend it.</li> <li>- Money for pre-approved projects should preferably be spent within a calendar year rather than carried forward, but money can accumulate in the fund for larger projects</li> <li>- Unspent CARIP funding is moved to the Carbon Neutral Reserve Fund</li> <li>- Need a policy for the Carbon Neutral Reserve Fund</li> <li>- Currently money going into fund at \$25/tonne, should be \$30/t as per Provincial pricing of carbon.</li> </ul>	<p>Capital projects only from 2016 funds onwards</p>	<p>(These two items become non-eligible from the 2016 contributions moving forwards.)</p>
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<p>Gas Tax Community Works Fund</p>	<ul style="list-style-type: none"> <li>- About \$1.2 million / yr</li> <li>- Approx \$50k/yr from this to energy retrofits on City facilities</li> <li>-Additional draws on the fund on an annual basis go to cycling, walking and transit infrastructure</li> <li>- With broadened criteria for fund allocation, the City is using this funding for a range of capital projects (not just projects with a sustainability focus)</li> <li>- Can criteria be developed so that projects that draw on this funding align with the City’s sustainability goals (e.g. incorporate energy reduction/waste reduction/GHG reduction/Green shores etc.)?</li> </ul>	<p>City owned Capital projects, e.g. could fund cycling infrastructure, organics program to purchase green bins</p>	<ul style="list-style-type: none"> <li>- Programs</li> <li>- Staffing</li> </ul>
<p>General taxation</p>	<ul style="list-style-type: none"> <li>- Frame CEEP implementation as an economic development strategy?</li> <li>- The community spends \$110 million / yr on energy. Aim to keep a % of that in the community</li> <li>- Invite new Economic Development Officer to meetings</li> <li>- Partner with the Chamber of Commerce as they have interest in programs that support business development and reduce costs for local business owners</li> </ul>		
<p>Revolving fund</p>	<ul style="list-style-type: none"> <li>- Is there an opportunity to recirculate savings on energy retrofits into other projects / programs / staffing?</li> </ul>		

	<p>-FCM GMF being ramped up, and may provide an opportunity to fund some energy retrofits to start this off.</p> <p>- Right now savings from projects just mean less expenditures on energy costs from general revenue.</p>		
Public-Private partnerships	What known sources of funding exist for community-wide projects?		
Other	<p>- BC Hydro Community Program Funding. It's not guaranteed every year. But Campbell River did get \$50k for first Power Down. They did fund CEEP initially. But it varies year to year, not reliable.</p> <p>- REFBC green building funding. Haven't tapped into that. Not reliable however.</p> <p>- Federation of Canadian Municipalities Green Municipal Fund (FCM GMF). Not reliable however.</p> <p>- Community Energy Leadership Program (CELP). Not reliable however. May expire soon.</p>	<p>Eligible spending on these should be checked:</p> <p>- BC Hydro Community Program is for programs, possibly also policy development</p> <p>- REFBC green building funding can be for programs and policy development</p> <p>- FCM GMF can be for programs and capital projects</p> <p>- CELP can be used for capital projects, only renewable energy and very energy efficient buildings</p>	

## APPENDIX V – BC HYDRO COMMUNITY ENERGY ADVISER DRAFT WORK PLAN

The following table includes the draft work plan for the Community Energy Adviser in Campbell River. Sections highlighted in yellow are suggested additions, which take into account the recommendations listed in this implementation strategy.

In addition, there are two key action items listed in the above implementation strategy that can be considered for inclusion in the Community Energy Advisor work plan:

1. The Community Energy Adviser should be responsible for scanning opportunities to embed the CEEP into policies (as they come up for review) and processes
2. The CEA is responsible for leading broader stakeholder engagement.



Community Data				
<i>Please include the following data (if available):</i>				
Energy and Emissions Data – Building Sector				
	Total (GJ or tonnes)	% from All Buildings	% from Res. Bldgs.	% from Comm. Bldgs.
Community Energy Use (GJ)	3,858,951	53%	33%	20%
Community Emissions (tonnes)	190,604	26%	17%	9%
Building Stock Data – Current				
	# of Units	% of Total Units	Floor Area	
Residential – Single Family	11745	76%		
Residential – Multi-Family	3665	24%		
Commercial			1,700,000 sq. ft.	
Community Growth Projections				
Target Date of CEEP	2035			

Projected Population at Target Date	40,000		% Increase		
<b>Projected New Construction at Target Date</b>	# of Units (new)	# of Units (reno)	Floor Area (new)	Floor Area (reno)	% Existing
Residential – Single Family	2933	580			17%
Residential –Multi-Family	2057	50			10%
Commercial			480,000	1,952,732 (!)	➤ 100% (!)
<b>Projected BAU Energy and Emissions at Target Date</b>	Total (GJ or tonnes)		% from All Buildings	% from Res. Bldgs.	% from Comm. Bldgs.
Community Energy Use (GJ)				40% by 2060	25% by 2060
Community Emissions (tonnes)			14% by 2060		
Additional Data	Annual Growth of 1%				
Other Factors for Prioritization	e.g. significant planning, policy and/or development projects (1-3 years)				
<b>Building Sector Priorities</b> – On which sectors do you plan to focus your work? Please rank High (H), Medium (M) or Low (L).					
<b>New Residential</b>	<b>Existing Residential</b>	<b>New Commercial</b>	<b>Existing Commercial</b>		

**Embed Commitment + Mobilize People**

Delivery of a <b>Strategic or Financial Commitment</b> initiative (based on SCEA score)							
Activity Name		Description	Year 1 Deliverables	Year 2 Deliverables	Year 3-5 Deliverables	Estimated Elect. Savings (GWh/year)	
ADVANCE AT LEAST ONE	1	Develop business case for continuing Power Down Campbell River	Budget deliberation prep and presentation	Program review and update for Council	Funding next steps for program		
	2	Complete CEEP Update (Sept 2016)	Work with the GTI team and City staff on the development of an updated implementation plan for the CEEP	Get CEEP v2 Adopted  Submit SLCRs to Council for financial plan deliberation	Complete actions as authorized by Council	Champion CEEP throughout organization	
	Delivery of a <b>Performance Management</b> initiative (based on SCEA score)						
	Activity Name		Description	Year 1 Deliverables	Year 2 Deliverables	Year 3-5 Deliverables	Estimated Elect. Savings (GWh/year)
	3	Develop an annual reporting and tracking tool <b>Review Section 2 and Appendix I of the implementation strategy.</b>	Develop performance indicators for energy retrofits to City facilities and report out publicly.	Develop and implement <b>monitoring</b> framework	Continue reporting and develop ongoing capacity plan (post CEM funding)	Continued reporting	
	4	Review CEEP progress on an annual basis	Report out to City mgt team, Council and public on annual basis. Integrate into City's annual report (public release). <b>Convene with departments and stakeholders identified in Appendix I for KPI data.</b>	Develop and implement <b>reporting</b> framework	Continue reporting and develop ongoing capacity plan (post CEM funding)	Continued reporting	

		Integrate GHG metrics into Financial Management Planning & Council Reports	Develop mechanism for integrating review of GHG impacts into financial and Council decision making processes	N/A	Review District of Saanich's framework and submit approach to senior management/ Council for potential implementation	Regular annual reporting towards progress and programs	
Delivery of a <b>Council Priority or Staff Capacity</b> initiative (based on SCEA score)							
		<b>Activity Name</b>	<b>Description</b>	<b>Year 1 Deliverables</b>	<b>Year 2 Deliverables</b>	<b>Year 3-5 Deliverables</b>	<b>Estimated Elect. Savings (GWh/year)</b>
5		Engage APEC and Council regarding the CEEP (including community building energy efficiency initiatives)	-Quarterly APEC Meetings -Annual Report to Council -Ad-hoc reports to Council through Council Bulletin and Lunch and learn showing CEEP activities, and measurable progress related to CEEP implementation. This relates to annual CEEP reporting. The key here is to ensure that Council is kept engaged with the City's progress on the CEEP and corporate carbon neutral initiatives.	Quarterly meetings with APEC Council Bulletin Updates Annual Report to Council Council Lunch n' Learn	Quarterly meetings with APEC Council Bulletin Updates Annual Report to Council Council Lunch n'Learn		
Delivery of a <b>Communications or External Networks</b> initiative (based on SCEA score)							
		<b>Activity Name</b>	<b>Description</b>	<b>Year 1 Deliverables</b>	<b>Year 2 Deliverables</b>	<b>Year 3-5 Deliverables</b>	<b>Estimated Elect. Savings (GWh/year)</b>
6		Annual community report card on CEEP initiatives	Regularly report to community on opportunities and shortcomings. See performance management section item 1. This is the same initiative.	Develop report card and share it	Continue reporting & develop strategy for reporting beyond CEM 2 year term		

	7	Develop branding for CEEP communications	Package all this stuff under a recognizable brand – format, communication plan etc. Utilise or build on Power Down CR/Sustainable Campbell River branding.	Develop brand for CEEP initiatives & integrate into communications.	Ensure branding is used for communications.		
	8	Develop a continuity plan for CEEP/Corporate Carbon Neutral Initiatives	Ensure that a system is in place for action, reporting, and implementing CEEP/Corporate Carbon Neutral plan, beyond the CEM position. Consider recommendations in the Implementation Strategy.	Create a long-term plan working with other City depts.	Implement planning and review process.	Energy communications from City and programs are regularly updated and ongoing.	

**Take Action**

Delivery of a **Building Code Compliance** initiative (based on SCEA score)

MANDATORY DELIVERABLES	Delivery of a <b>Building Code Compliance</b> initiative (based on SCEA score)					
	Activity Name	Description (including building type)	Year 1 Deliverables	Year 2 Deliverables	Year 3-5 Deliverables	Estimated Elect. Savings (GWh/year)
		Annual Building Code energy workshops	Bring external experts to the community to talk about energy code requirements (residential and commercial – determine priority) – as part of City’s Builder & Developer’s Forums		Plan & host workshop in 2017	
9	Explore use of 3 <sup>rd</sup> party for P9 residential compliance (especially for Energy Step Code or energy efficiency requirements above code)	Research and if feasible, pilot use of Certified Energy Advisers to ease Building Official time in Code Compliance and implementation of EnergyStar homes/Energy Step Code	Research viability – report outlining pros and cons.	Develop and launch pilot program.		

Delivery of a Labeling +/-or Benchmarking initiative (based on SCEA score)						
Activity Name	Description (including building type)	Year 1 Deliverables	Year 2 Deliverables	Year 3-5 Deliverables	Estimated Elect. Savings (GWh/year)	
10	New buildings, point of renovation / sale energy labelling incentives and regulations	Explore incentives for labelling at time of sale, new build and renovation. Develop action plan to move into requirements. Develop builder/realtor education/awareness. Look at options for developing as a regional approach with CVRD.	Develop a strategy for integrating energy auditing, and labelling (including exploring potential for public disclosure) – for new build, renovation and sale.	Launch incentive program and develop regulations for subsequent year.	Regulate.	
	Benchmark City facilities	Publically report on existing City facilities energy performance – using a tool such as Portfolio Manager to report out. Prioritize City buildings for energy upgrades.	N/A	City facility energy upgrades & report out		
Delivery of Energy Step Code Incentives and Regulations initiative (based on SCEA score)						
Activity Name	Description (including building type)	Year 1 Deliverables	Year 2 Deliverables	Year 3-5 Deliverables	Estimated Elect. Savings (GWh/year)	
11	Develop Energy Step Code incentive program for new buildings	Track and support Energy Step Code roll out in other communities, and recommend to Council approach for Campbell River. Explore options for regional opt in. Research cost/benefit opportunities.	Research opportunities & develop strategy for Campbell River.	Present Council with strategy & work toward opt in for Energy Step Code incentives.		

**Additional Deliverables**

Delivery of **Additional Deliverables**, including but not limited to:

TO BE NEGOTIATED	Activity Name	Description	Year 1 Deliverables	Year 2 Deliverables	Year 3-5 Deliverables	Estimated Elect. Savings (GWh/year)
	Green Building Policy for City Facilities	Develop a policy for all new City buildings to be built to energy efficiency standards above code.		Develop policy and present to Council for endorsement.	Ensure policy is implemented for new City facilities (Eg. new Fire Hall)	
	Develop Carbon Neutral Reserve Fund Policy/CARIP Policy	Develop a formal policy on the funding source & use of monies for the Carbon Neutral Reserve Fund. Formalize strategy for use of CARIP funding for City sustainability initiatives that promote GHG reduction (allocated to CPDS Dept).	Develop strategy for SMT/Council review & adoption			
	Support multi-modal transportation initiatives	Work with the Transportation Department to apply for funding and implement initiatives to strengthen the City's multi-modal transportation network. (Implementation of Transportation portion of CEEP)	Identify funding / opportunities	Apply for funding		
	Review Carbon Neutral Plan	Review City building/GHG targets and actions in the Carbon Neutral Plan and provide a strategy for moving forward on plan implementation. eg. energy retrofits to City facility's using natural gas to be converted to biodiesel or heat pumps if feasible; increase biodiesel blend of fuel	Develop concrete actions to reduce City's corporate GHGs; present to City Council for 2017 or 2018 budget deliberations	Implement Action Plan		

## APPENDIX VI – STAFF INTERVIEW NOTES

### OVERALL SENTIMENT ABOUT THE CEEP

- Staff strongly support the overall objectives of the CEEP
- The CEEP is not part of the day-to-day of staff and is not perceived to be a priority
- Some staff worked on the plan when it was developed in 2011
- Most staff are not aware that the plan exists or that they should be consulting the CEEP for projects
- Strong appetite for implementation of CEEP actions
- Some consensus that more direction from the top to make the CEEP a priority would lead to greater attention towards it

### TRACKING AND REPORTING ON KEY PERFORMANCE INDICATORS

- Staff are engaging in corporate reporting but the level of awareness about the corporate target is low/non-existent
- Staff are sending CARIP data to one point person
- Staff are not engaged on the CARIP report results once it is finalized
- Staff are not tracking indicators in the CEEP
- Utilities do not currently track savings component by component
- Transportation KPIs focus on mobility, not energy and GHGs (do count people at intersections but not people using active transportation)
- BC Transit may be a good source for data
- Align with annual report in June? And/or CARIP report?
- Could determine GHG reductions by looking at change in Carbon Neutral Reserve Fund data

### ENGAGING STAFF IN THE CEEP GOING FORWARD

- There is interest from staff to engage in the CEEP on an ongoing basis (e.g. 1-2 times per year) so long as it benefits their work (i.e. they are being provided with progress indicators that can advance their core mandates)
- Everyone has a primary objective (i.e. utilities is to deliver and treat water and wastewater), with energy measures being secondary

- There is however, a lot of low hanging fruit at both corporate and community-wide levels
- Partnership formed with BC Hydro to help fund the hire of the new Community Energy Adviser, who will oversee the implementation of the CEEP
- A community-wide and a corporate energy manager could serve to capitalize on low-hanging opportunities
- Economic development – consider including the CEEP in the economic strategic plan (aiming to go to Council in the fall)
- Staff implementation committee could go a long way

#### ENGAGING COUNCIL IN THE CEEP GOING FORWARD

- It would be helpful to have external stakeholders engage with Council to discuss the successes both organizations have realized as a result of energy initiatives. This could support the case for CEEP implementation. For example, Island Health and/or the School District could present to APEC – a committee appointed to advise Council.

#### FUNDING THE PLAN - OPPORTUNITIES

- It is a top priority of Council to use tax dollars as efficiently as possible. As a result, the CEEP should be implemented within the existing means of the City of Campbell River
- There is an interest among City staff and Council to move toward lifecycle costing for projects. This approach would enable Council to better determine the benefits and payback of investments. This transition is currently happening (i.e. with fleets)
- 47% of transit funding comes from the province. Transit fares are very low.
- Revolving Fund – there is currently little interest in establishing a revolving fund with, for example, savings resulting from conservation/energy efficiency initiatives
- Community Works Fund currently supports capital project costs. The fund may be able to support operating costs (though staff time is not an eligible expenditure)
- Taxation: Important to communicate that CEEP implementation should be a priority and has underlying, community-wide benefits. There is a possibility to allocate taxation dollars to ongoing/maintenance costs associated with implementation.

#### ENGAGING THE PUBLIC

- Public consultations related to the CEEP are not currently a priority
- There is a need to develop engagement materials to support the CEEP. Some high level ideas include: the benefits of active transportation, green roofs, the urban forest and UFMP
- Need to ensure costs, benefits are transparent and well communicated

- Opportunity to bring more attention to community energy through the website

#### WHAT'S CURRENTLY BEING DONE (IN AND OUT OF SCOPE OF THE CEEP – NOT COMPREHENSIVE)

- Building Retrofits – about \$100,000 per year (there is an opportunity to ramp this up to support the community energy and GHG targets)
- Utilities – energy efficiency measures are currently being implemented at pump station, replace capacitors, biosolids program at WWTP, switching motion sensors, anti-idling (but – on the reverse side – moving from gravity system to pumping system water so energy will increase as a result)
- Waste Water Treatment Plant – energy efficiency measures implemented with BC Hydro funding
- Energy efficiency requirements for contractors (happening to some degree but could be ramped up)
- The City is planting 50 trees / year and “See the Tree Project” started (benefits not being communicated)
- CEEP is well-integrated with the Transportation Master Plan (2012) but the KPIs are not all reported on
- Level 2 EV charging stations
- Light duty passenger fleet almost exclusively hybrid

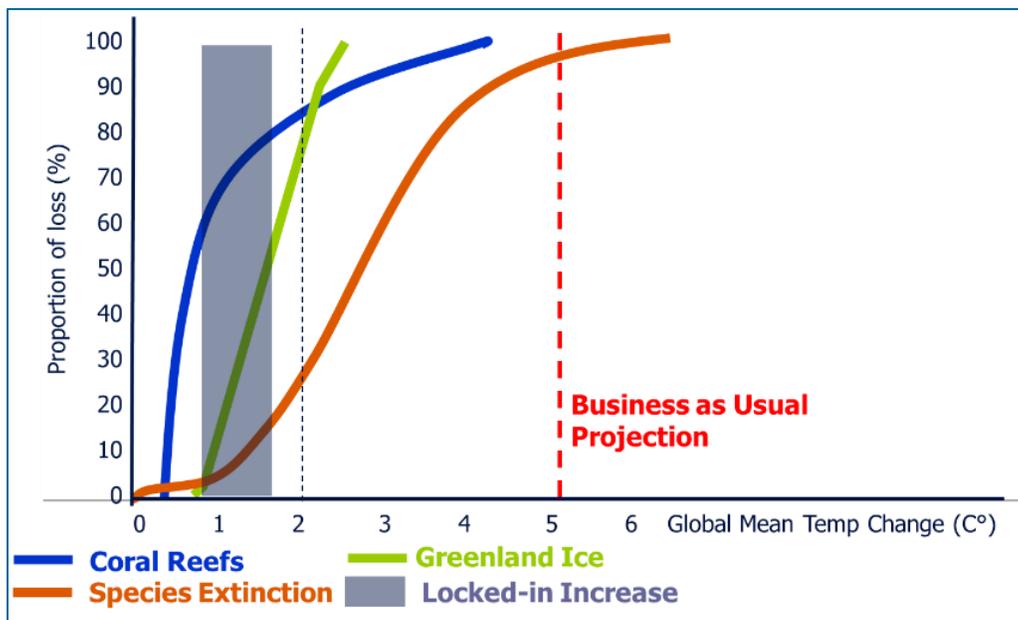
#### NEW ACTIONS TO CONSIDER OR GENERAL CONSIDERATIONS FOR THE CEEP

- Citizen Satisfaction Survey – include question regarding transportation
- CARIP reporting shows energy savings are happening but hydro rates are going up – need to communicate the effectiveness of energy savings despite increases
- Urban Forest Management Plan – implementation funding is required. Before we ramp up implementation, public education is needed on the benefits and the myths about the UFMP (i.e. benefits of tree protection by-law), but first the public needs to support this so that APEC can get behind it (i.e. Beaver Lodge Lands not urban forest, need to tie the benefits of canopy to livable cities)
- Capital Works – opportunities for energy efficiency
- Hydro rates are going up 4-7% per year
- Focus on how the CEEP can help reduce \$110M/year spent by the community on energy
- Space assessment for City buildings – incorporate smart energy principles (E.g. the water dept. building)
- Install turbine in line with drinking water supply
- Converting fleet to low carbon
- Install DC Fast Charger for electric vehicles

## APPENDIX VII – COMMUNITY ENERGY PLANNING AND CLIMATE CHANGE

Climate change has been recognized by the Province of British Columbia as an issue of critical importance. GHG emissions are the primary cause of climate change, and reducing them is one of the foremost challenges of the next few decades.

Climate commitments of the Province of British Columbia and BC local governments are meant to begin to address the issue of climate change. Without rapid action, the best science indicates that the Earth will warm by 5 degrees or more by the end of this century. The Earth is currently approximately 5 degrees warmer than the last ice-age. The human species, along with many other species on the planet, have never been exposed to a planet as hot as is projected or at the rate of change that we are experiencing. The 2 degree threshold typically regarded as the maximum increase allowable to avoid dangerous climate change (see blue vertical dotted line in the following chart), still places approximately 25% of species at increased risk of extinction.



Data assembled from a variety of IPCC data sources. Source: Community Energy Association

## APPENDIX VIII – SWOT ANALYSIS

The following Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis was developed by the CEEP Steering Committee and City of Campbell River Staff. The analysis informed the rationale for some of the recommendations in this implementation strategy.

<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>– City staff expertise &amp; strong motivation</li> <li>– Prior successes – demonstrable projects and awards (City is a leader)</li> <li>– BC Hydro Funding for a Community Energy Manager</li> <li>– Internal pool of funding for capital projects &amp; consultants</li> <li>– Stakeholder expertise &amp; projects – e.g. School District &amp; Island Health</li> </ul>	<ul style="list-style-type: none"> <li>– Little internal funding for CEEP programs and staff</li> <li>– Fluctuating availability of external funds</li> <li>– Lack of institutionalization in the local government</li> <li>– Variability of BC Hydro and Fortis programs</li> <li>– Little tracking of Key Performance Indicators</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>– External funding / resources</li> <li>– Current interest of Federal government, new Climate Framework. Watch NRCan too</li> <li>– Potentially from the BC Climate Leadership Plan</li> <li>– Federation of Canadian Municipalities Green Municipal Fund</li> <li>– Community Energy Leadership Program grants</li> <li>– Vancouver Foundation</li> <li>– FortisBC Energy Specialist program</li> <li>– BC Hydro Corporate Energy Manager program</li> <li>– Island Coastal Economic Trust</li> <li>– Joint grant applications with other community groups / organizations</li> <li>– Provincial rebates for energy assessments</li> <li>– CMHC incentives / grants? Including for energy efficient homes</li> <li>– Other grants &amp; incentives? Including BC Hydro, LGMA, Fraser Basin Council for clean air, Corporate foundations (inc. big banks – TD Green Streets)</li> <li>– New business models?</li> <li>– Internal funding/resources</li> <li>– Fund created from energy savings or energy generated</li> <li>– Linking CEEP objectives with other objectives and finding opportunities to coordinate timing to incorporate smart energy principles when equipment needs to be replaced, infrastructure is renewed etc.</li> <li>– Using business cases to obtain support</li> </ul>	<ul style="list-style-type: none"> <li>– Severe weather (impacts can affect municipal budget)</li> <li>– Reductions or delays in incentives/grants</li> <li>– BC Building Act – may reduce flexibility for local governments to legislate more sustainable new construction</li> <li>– Continuing low natural gas rates hampering switch to cleaner forms of energy</li> <li>– Economic recession</li> <li>– Shift in priorities from higher levels of government</li> <li>– City staff turnover</li> </ul>

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| <ul style="list-style-type: none"><li>- Incorporate into 10 year financial plan</li><li>- Other organizations and people as delivery agents (e.g. non-profits and community leaders)</li><li>- BC Transit – alternative fuel technologies for transit vehicles (natural gas, electric inc. battery &amp; trolley, and H2 fuel cell)</li><li>- Awards – for City to be recognised for its leadership by outside organisations</li><li>- Awards – for City to recognise leadership within the community</li><li>- Integration of the CEEP into municipal processes</li></ul> |  |
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