



# Regional Collaboration Opportunities for Community Energy Planning

## In the Peace River Regional District

Prepared for  
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The Peace River Regional Energy and Emissions Project is a collaborative effort between the Peace River Regional District and the municipalities of Chetwynd, Pouce Coupe, Taylor and Tumbler Ridge to develop both corporate and community energy plans for each community and the rural areas in order to meet their voluntary commitments under the Climate Action Charter and the regulatory commitments under the "Green Communities" amendment to the Local Government Act (Bill 27, 2008).

Peace River Regional Energy and Emissions Project Partners:



Peace River Regional District

District of Chetwynd

Village of Pouce Coupe

District of Taylor

District of Tumbler Ridge

# 1. Introduction

## 1.1 The Peace River Regional Energy and Emissions Project

The Peace River Regional Energy and Emissions Project is a collaboration of the Peace River Regional District (representing the unincorporated areas of the PRRD), and the municipalities of Pouce Coupe, Chetwynd, Taylor and Tumbler Ridge to develop corporate and community energy plans for their respective jurisdictions. Additionally, these organizations sought opportunities to collaborate on a regional basis to strengthen partnerships, share resources and present a unified and consistent approach to applicable regional energy issues. This Community Collaboration document (and its partner Corporate Collaboration document) signals the beginning of regional collaboration on energy and emissions reduction. The following sections briefly describe elements of the project pertaining to regional collaboration and create the foundation for initial and continuous opportunities for Peace River region communities to reduce energy use and greenhouse gas emissions together. Fort St. John, Dawson Creek, and Hudson's Hope are also considered in this regional collaborative initiative; their respective corporate and community energy plans have been reviewed to identify actions they are pursuing to reduce energy use and greenhouse gas emissions (GHGs).

## 1.2 Purpose of this Document

This document is designed to encourage PRRD communities to take collaborative action to reduce energy use and GHG emissions in homes and businesses, in personal and commercial travel, and in the disposal of solid waste.

## 1.3 What is a Community Energy Plan (CEP)?

A Community Energy Plan (CEP) is a strategic document designed to assist a community to reduce its energy consumption, greenhouse gas (GHG) emissions, and to plan for future energy use. CEPs provide guidance on future decision-making for their communities with respect to land use, transportation options, solid waste management, etc. The CEP defines long term targets for energy use and GHG emissions, outlines strategies for meeting those targets and recommends actions to implement the strategies.

## 1.4 Mandate for Energy and Emissions Planning

The province of BC has begun a number of initiatives in order to provide leadership and direction to BC communities to address climate change. They are described briefly in the following bullet points to provide the legislative and policy context.

- GHG Emissions Reduction Target Act (Bill 44, 2007): The Province of BC has set a province-wide GHG emission reduction target of 33% below 2007 levels by 2020. The Act also sets requirements for Public Sector Organizations (PSOs) to be carbon neutral by 2010.
- Green Communities Act (Bill 27, 2008): Bill 27 requires local governments include GHG emission targets, policies, and actions in their OCPs. To achieve this objective, the legislation provides a range of potential new powers for local governments. All local governments in PRRD are either in the process or have completed the definition of GHG reduction targets, policies and actions for their OCPs.
- BC Climate Action Charter: A provincial initiative introduced in September 2007 to encourage local governments to become carbon neutral in their local government operations by 2012, The Charter requires each signatory to develop a baseline inventory that shows the energy use for all municipal operations. The energy use must balance to zero by 2012, by reductions in use, with the remainder being made up of carbon offsets. By signing the Charter, local governments also commit to measuring and reporting on their community's GHG emissions profile and creating complete, compact, more energy efficient rural and urban communities. The PRRD and every member municipality have signed this Charter.

## 1.5 Summary of Energy and Emissions for PRRD Communities

Prior to defining measures to reduce energy consumption and GHG emissions from community activities, it is important to create an energy and emissions profile (or inventory) to understand which activities are consuming energy and producing GHG emissions, and how much. The provincial Community Energy and Emissions Inventory (CEEI) initiative has developed inventories for every municipality and regional district in BC for 2007. According to CEEI calculations, approximately 15,530,000 gigajoules of energy was consumed and 838,000 tonnes of GHGs were emitted in 2007 at the regional scale. The majority of GHG emissions result from vehicle transportation (58%) and heating and powering buildings (37%), as shown in the chart below.

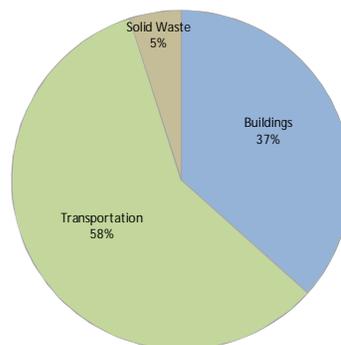


Figure 1. Sources of community GHG emissions in the PRRD

The following table summarizes community energy consumption and GHG emissions for each community in the PRRD. Note that this data includes the following:

- Energy consumed in residential, commercial and small/medium industrial buildings;
- Estimated fuel consumed by vehicles registered in the community; and
- Estimated solid waste disposed at landfills in the region.

These inventories do not include estimates for large industrial activity or agricultural activity.

Local government	Population (2006)	Energy consumption (2007) GJ	GHG emissions (2007) tonnes CO <sub>2</sub> e	GHG emissions per capita (2007) tonnes CO <sub>2</sub> e
PRRD (unincorporated areas)	20,668	4,600,000	256,000	12
Chetwynd	2,833	860,000	49,000	17
Dawson Creek	11,514	2,640,000	137,000	12
Fort St. John	17,402	4,604,000	261,000	15
Hudson's Hope	1,051	154,000	7,200	7
Pouce Coupe	739	117,000	6,100	8
Taylor	1,384	310,000	14,800	11
Tumbler Ridge	2,454	553,000	24,000	10

\* All energy and emissions data was accessed from the updated Community Energy & Emissions Inventory for 2007 (CEEI – September 2010).

## 2. Opportunities

Communities throughout PRRD are embarking on plans to address energy consumption and GHG emissions that result from community activities. The types of activities that lead to the majority of energy consumption and GHG emissions in our region include transportation choices, land use patterns, and building design. Although the activities are similar, each community has a unique combination of residential homes, neighbourhood layouts, commercial and industrial activities, and transportation networks, leading to the question – which activities can local governments undertake in collaboration to more effectively and efficiently implement local energy plans? And conversely, which activities are more effectively and efficiently implemented at the local level? This section will explore these questions.

### 2.1 Rationale for Collaboration

Collaboration can produce multiple benefits. For small, northern communities, collaboration can provide new opportunities that individual communities would not have the capacity or resources to undertake alone. Collaboration may occur at various levels, from regional programs led by the Regional District, to sharing experiences and documents between local government staff and elected officials, to combining training. In addition, collaborating also increases opportunities for learning from each other's experiences and sharing successes between communities. A third benefit is the opportunity to create clear, consistent messaging about an issue across a region. For example, several regional districts in BC have implemented "Burn it smart" campaigns to increase awareness about air pollution resulting from inefficient woodstoves. Using a slogan and consistent messaging can help increase awareness among residents and businesses.

Despite the many benefits of collaboration, coordinating these activities may require an unreasonable investment of time for small communities with limited staff. It is necessary to distinguish between activities that are appropriate for collaboration and those that are not.

### 2.2 Evaluation of Actions

All of the community energy and climate action plans in the region were reviewed to understand the types of activities each community has identified to address community energy use and GHG emissions. Each activity was evaluated using four criteria to identify candidate activities for regional collaboration. These criteria are described in the table below.

Criteria for Regional Collaboration <sup>1</sup>	Description
CATALYST	Would the activity benefit from building momentum, knowledge or understanding at a regional scale?
LEADERSHIP	Will somebody take ownership or champion this activity at the regional scale?
CONSISTENCY	Would the activity be consistently implemented in each community?
CAPACITY	Will each local government have the capacity to participate in the coordinated activity?

Upon evaluation, candidate activities fell into three broad categories. These categories transcend the subject areas identified in most plans (e.g. Buildings, Transportation, Land Use, Alternative Energy, Solid Waste). The three broad categories are:

**“PROMISING PARTNERSHIPS”:** These activities may benefit from coordinated program planning, coordinated funding, standard messaging, etc. across several communities. The activities are relatively similar in all regions and would result in significant duplication if independently implemented in every community.

**“SHARE THE KNOWLEDGE”:** These activities may benefit from sharing successes and challenges between staff at different communities, developing and sharing model bylaw and policy documents that can easily be adapted to different communities, creating opportunities for joint training, etc. Coordinating information exchange in these areas may reduce duplication of effort and build capacity around energy and GHG planning in the region.

**“KEEP IT LOCAL”:** These activities are not strong candidates for regional collaboration, and are better suited to being implemented differently in each community. These activities include identifying and developing partnerships in the community, building appropriate infrastructure and demonstration projects, and identifying local opportunities for capturing waste heat.

<sup>1</sup> The criteria are loosely based on the Public Policy Research Institute “Common Stages of Regional Collaboration”, University of Montana, 2008.

The following table summarizes the activities according to these three categories, with notes about the four evaluation criteria questions.

	Action Description	Catalyst	Leadership	Consistency	Capacity
"Promising Partnerships"	Education campaign about energy efficient buildings, demonstration projects	High: marketing message is stronger if used throughout region	Regional District: may require new resources or partnership to coordinate	Marketing message consistent across communities	High: promote through established permit process
	Incentive program to improve energy efficiency in buildings	High: centralized funding	Regional District: may require new resource	Application consistent	High: promote through established permit process
	Social marketing campaign about transportation choices and reducing vehicle emissions	High: marketing message is stronger if used throughout region	Regional District: may require new resources or partnership to coordinate	Marketing message consistent across communities	Low: not a typical area for LGs, consider partnership with non-profit
	Training for staff to understand available alternative energy technologies	High: may reduce travel and increase opportunities to exchange info	Use existing Municipal Association meetings to identify and coordinate	Alternative energies of interest are applicable throughout area	High: can incorporate into existing training opportunities
	Research opportunities for community-scale alternative energy across the region: e.g. anaerobic digestion from waste; potential for local utility?	High: creates a profile and momentum for alternative and district energy projects	Regional District: lead a joint study	Some projects may be regional in nature, others may be local	Low: new area of research for LGs
	Implement Regional Solid Waste Management Plan, including development of landfill gas capture systems	High: have developed plan and currently implementing	Regional District service	SWMP sets out regional goals	Varies: need to expand existing services
	Develop a regional community legacy project to assist with developing alternative energy and increasing resilience	High: already known as energy hub for BC, potential to be renewable energy hub	Regional District would lead a discussion with province and industry	Applies across the region	Incorporate into existing roles
"Share the Knowledge"	Green building checklists with building permits	Low: permit process is a local issue	Larger communities: develop and share checklist with other communities	Checklist items may be similar but will need adapting to each community	Integrate with established permit process
	Idling reduction bylaw to reduce transportation fuel consumption	High: regionally consistent bylaws help with enforcement and compliance	RD or larger communities: develop and share template bylaw	Opportunities for idling reduction are consistent throughout region	Small communities may easily adopt model bylaw
	Update zoning bylaws, OCP, policies for DPAs, DCCs promoting energy efficient land use patterns	Moderate: opportunity to learn from other communities	RD or larger communities: develop and share template bylaws / policies	May be similar enough to adapt bylaw or policy text to each community	Small communities may need the support of larger communities
	Update zoning bylaws, OCP, policies for DPAs, DCCs to promote use of alternative energy	Moderate: opportunity to learn from other communities	RD or larger communities: develop and share template bylaws / policies	May be similar enough to adapt bylaw or policy text to each community	Small communities may need the support of larger communities

"Keep it Local"	High efficiency local government buildings	Low, but may be potential for ESCO	Local	Site-specific	Low
	Partnerships with education institutions, non-profit organizations, industry etc. to promote energy efficient buildings	Low: each community has unique partner opportunities	Local: already have connections to potential partners	Partners are specific to each community	Regional partnerships may have limited impact for effort
	Partnerships with major employers, commercial entities to reduce commuting and transportation emissions	Low: each community has unique partner opportunities	Local: already have connections to potential partners	Partners are specific to each community	Regional partnerships may have limited impact for effort
	Install and maintain infrastructure (sidewalks, bike paths, etc) to encourage non-vehicular transportation	Low: infrastructure opportunities are neighbourhood-specific	Local	Unique by neighbourhood area	No collaboration benefit
	Research opportunities for capturing waste heat to generate alternative energy	Low: most opportunities to be investigated at local level	Local, in partnership with industry; RD may conduct high-level assessment across region	Opportunities will be different in each community	Limited collaboration benefit
	Develop / promote pilot projects demonstrating alternative energy technologies	Low: demonstration projects are specific to each community	Local	Unique by community	Announce projects to other communities and share results – integrate with regional meetings

# 3. Conclusion

## 3.1 Next Steps

Several opportunities for collaboration, sharing and learning were identified in Section 2. What is required to implement these activities in a collaborative manner to achieve success in implementation while finding efficiencies? This section outlines the next steps for implementing these.

### 1. Seek out commitment and representation from each local government

Building on the Peace Region Climate Action Task Group that acted as the steering committee for this project, form a broader task group that includes representatives from every local government in the region that is willing to participate in the regional activities. This group should commit to meeting on a regular basis to exchange ideas, evaluate progress on regional activities, and adapt activities and priorities as necessary. These meetings may be held in coordination with an existing activity, such as the Peace River Municipal Association meetings where energy and emissions planning can be added as a regular agenda item.

To kick-start the implementation of regional activities, a regional workshop may be held with staff and/or elected officials from each community to identify priorities, champions, and potential funding sources for moving forward.

### 2. Identify a champion for each regional activity

As identified in the evaluation in Section 2, LEADERSHIP is integral to successful joint implementation. Champions need to be identified to lead the coordination of the activities that are identified for regional implementation. There may be different champions for each activity, or one champion may lead several activities.

The champion would be responsible for undertaking or overseeing the following:

- Work with all community representatives to jointly define the desired outcome of the activity and a strategy for getting there,
- Secure necessary funding, partnerships and resources, and
- Evaluate progress and adapt the activity as necessary.

Several of the identified collaborative activities may benefit from designating a new staff position at the Regional District such as a Community Energy Manager that may be eligible for partial funding from BC Hydro.

**Example Regional Collaboration Activity:**

Develop and deliver a region-wide social-based marketing campaign to reduce fuel used for transportation

This activity may be difficult for communities to develop independently because resources are required to:

- Develop a marketing strategy,
- Develop materials for distribution to residents and businesses,
- Coordinate with partner(s) (e.g. NEAT – Northern Environmental Action Team) to deliver workshops in schools and at community events,
- Identify and apply for funding for the campaign (e.g. BC Ministry of Environment's Idle-free Ambassador program),

All of these tasks would need to be duplicated in each community, which makes a strong business case for collaboration in this case.

### 3. Establish opportunities for building capacity and sharing information

Several activities are identified that are best “championed” at the local level, but would benefit from sharing documents (e.g. policies, bylaws), exchanging successes and challenges, and developing capacity and training opportunities across the region. In order to facilitate ongoing information exchange and communication between communities, a simple system needs to be put into place. This may be in the form of an email list, a website where users can upload documents, and/or regular meetings with representatives from all communities.

#### 3.2 Summary

In summary, through the development of community energy and climate action plans in PRRD communities, many activities have been identified that will lead communities towards improvements in energy efficiency, reductions in GHG emissions, and increases in energy diversity and resilience. Some of these activities have been identified as potential candidates for implementing in a collaborative manner due to their suitability to regional implementation. Several other activities are likely to be more efficiently implemented at the community scale, but with opportunities for sharing knowledge, documents, and training to build capacity across the region.