

PCP Program Milestone 2- Estimating an Attainable GHG Reduction Target

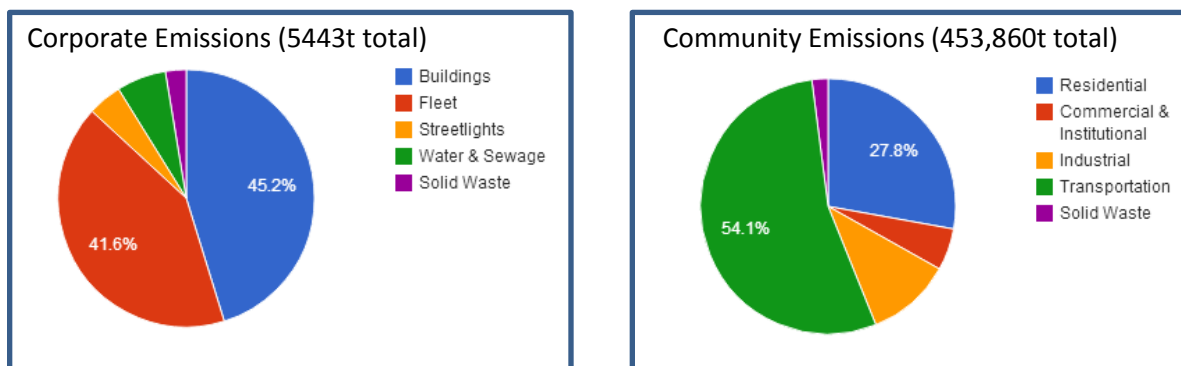
To meet the requirements of the Partners for Climate Protection Program's second milestone, Council must adopt reduction targets for the corporate and community greenhouse gas (GHG) inventories created for 2010. The results of these inventories can be seen in Figure 1 which demonstrates that for both inventories transportation and buildings create the most emissions. The reduction target adopted by the County should be based on these baseline inventories as well as input from key stakeholders (ie. the EAC and administration). It will set the basis for developing a local action plan for emissions reduction and tracking its progress. The target will be expressed as a percent reduction below baseline emissions.

The Environmental Advisory Committee (EAC) recommends the following targets:

- For corporate operations: 25% reduction by 2020 & 40% reduction by 2025.
- For community emissions: 6% reduction by 2020 & 10% reduction by 2025.

The EAC considers these targets to be realistic and attainable and further recommends that they should be reviewed on an annual basis and adjusted when necessary. To generate these recommendations the general targets suggested by the FCM to all municipalities were used as a starting point. These targets are 20% emissions reduction for municipal operations over a 10 year period and 6% emissions reduction for community over a 10 year period.

Figure1: 2010 inventory results by sector for Corporate and Community GHG emissions.



From here, the targets set by other municipalities similar in size, population, density, and/or location to Parkland County were compared and considered. A comparison of such municipalities can be seen in Table 1. Most municipalities chose to adopt the FCM's suggested targets, although some have chosen more aggressive ones. None, however, have chosen to adopt targets that are lower, suggesting that these targets are realistic and attainable with appropriate effort and budgeting, and should be considered the minimum level of reduction that is acceptable for a municipality to strive for. With this in mind, if Parkland County chooses to adopt a target higher than those suggested, it will be seen as progressive in the eyes of other municipalities and also as a political statement of leadership in supporting environmental sustainability and reducing climate change.

Table 1: Comparison of similar municipalities' GHG reduction targets.

Municipality	Population	Density	Municipal Baseline Emissions (t/yr)	Municipal Target	Community Baseline Emissions (t/yr)	Community Target
Parkland County	30568	0.126 ppl/ha	5443		453,860	
British Columbia						
District of Mission	31272	2.9ppl/ha	2526	10% in 7 yrs	236,261	20% in 13 yrs
Sunshine Coast	26000	0.069ppl/ha	1806	27% in 8yrs	409,000	7% in 24 yrs
Port Coquitlam	51257	10.34		20% in 10 yrs		8% in 10 yrs
Penticton	43313	0.246	2499	20% in 11 yrs	231,800	5% in 13yrs
Alberta						
Stony Plain	10544	4.227	3010	20% in 10 yrs	86,274	6% in 10 yrs
Spruce Grove	15963	8.086	5275	20% in 17 yrs	248,870	6% in 17 yrs
St.Albert	60138	16.474	30,716	20% in 12 yrs	711,303	10% in 12 yrs
Ontario						
Stratford	29676	11.46	6606	20% in 10yrs	382,395	6% in 10 yrs
Caledon	39975	0.864	5560	20% in 7 yrs	326,000	6% in 7 yrs
Scugog	20173	0.454	2209		152,682	
Uxbridge	19169	0.49	2378		151,414	
North Durham	51321	0.389	6047	28% in 7 yrs	394,847	8% in 10 yrs
Manitoba						
Brandon	46061	5.991	4153	20% in 10 yrs	325,240	6% in 10 yrs
Nova Scotia						
Strait-Highlands (RDA)	29718	0.059	4866	21% in 10 yrs	469,789	18% in 10 yrs
New Brunswick						
Fredericton	47560	3.867	13007	20% in 10 yrs	647578	6% in 10 yrs
Newfoundland						
Conception Bay South	19772	4.192	1403	20% in 10 yrs	143753	6% in 10 yrs

Although setting a goal which is higher than those suggested by the FCM may seem aggressive when compared to other municipalities' targets, it may actually be a practical in terms of Parkland County's particular situation and resources. The practicality of a progressive target was assessed by quantifying the GHG reduction potential of current, planned, and possible initiatives. These initiatives were organised into community and corporate categories, and their reduction potential was shown as a percent of the total inventory GHGs that may be reduced by their implementation. All values were based on either provincial or local statistics collected from census data or data collected by corporate departments and/or energy suppliers.

Figure 2 gives an overview of potential reductions for corporate emissions. Current initiatives implemented since 2010 are shown in shades of blue and possible initiatives are shown in shades of red. What is important to note is that current initiatives can obtain a near 10% reduction from the 2010 inventory. With the further adoption of a mixture of initiatives that target the County's largest sources of emissions, there is the potential to reduce our corporate emissions by up to 60% in a best case scenario and 27% in a worst case scenario. It should also be understood that the initiatives shown here are only a portion of those available to municipalities, but are those deemed most practical for Parkland County based on the available resources and time constraints.

Figure 3 gives an overview of potential reductions for community emissions that may be attained by initiatives which primarily target the two sectors with the largest emissions (transportation and residential). Because the amount of buy-in to community initiatives is more difficult to predict and control than corporate ones, the potential reductions for community initiatives are shown on a scale from 0% to 100% public participation. In this way the County can estimate the potential for each initiative's GHG reduction based on the percent of the community that is predicted to participate. The

graph is also stacked so that the reduction potential from each initiative builds on that of those shown under it. Therefore, if 100% of the community fully participated in this sample of initiatives, about 61% of the community GHG emissions could be eliminated.

It is for these reasons that the EAC recommends progressive targets for Parkland County. It should also be noted that amendments may be made to the set targets in future years if need be and that these targets will be used as a guide for creating a Local Action Plan and as support for and promotion of environmental initiatives.

Figure 2: GHG reduction potential of each corporate initiative as a percent of total corporate emissions in 2010.

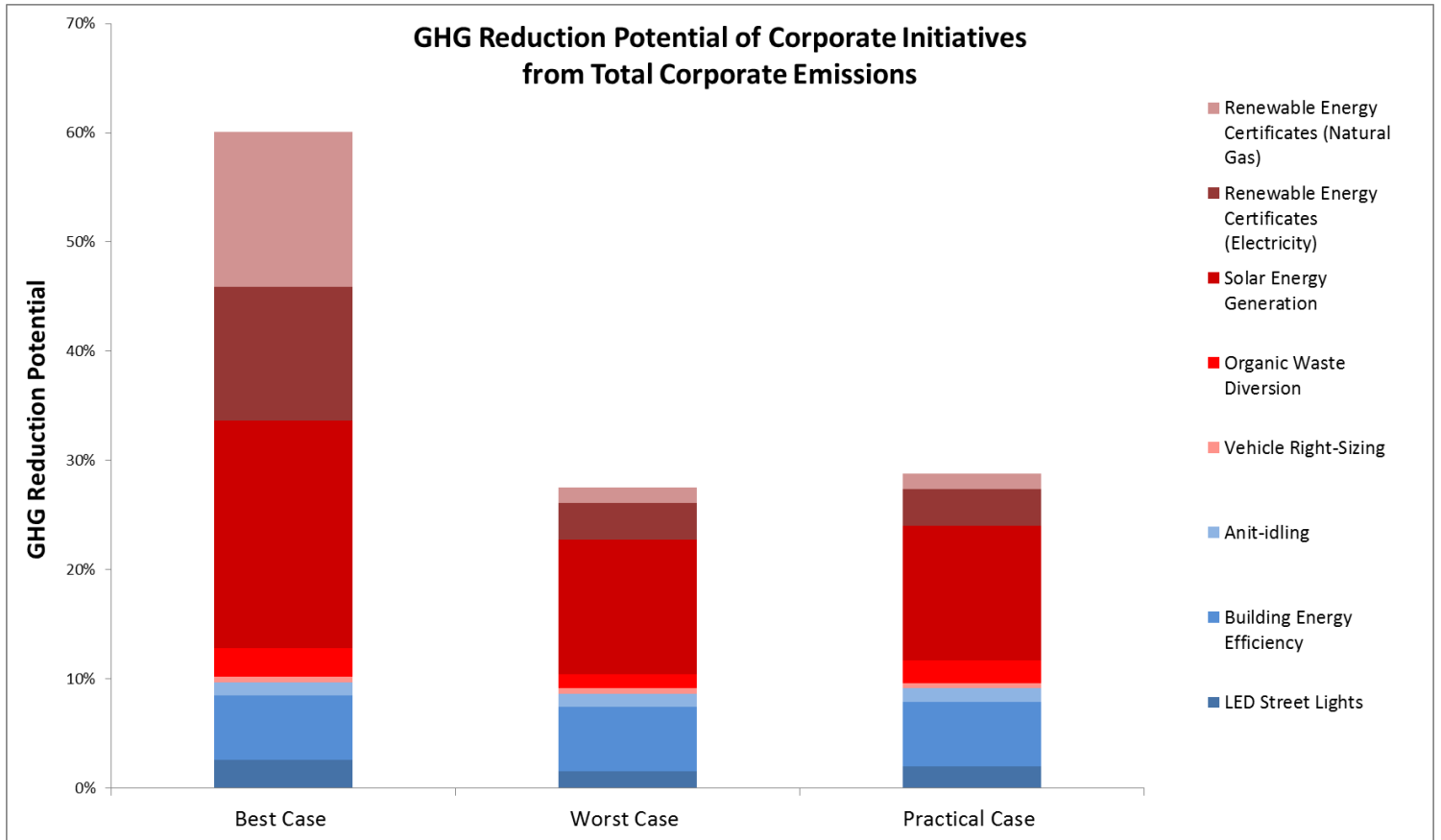


Figure 3: GHG reduction potential of each community initiative as a percent of total community emissions in 2010.

