



CEEI 2007 Reports User Survey Results

Prepared For: Ted Sheldon, Ministry of Environment

Prepared by: Enerficiency Consulting
119 Head Road
Gibsons, BC V0N 1V3
604 - 886 - 9864

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1. Introduction

The 2007 CEEI reports were released in March 2009. At the same time, a short survey was developed to solicit feedback from local government staff and others who might use the reports. The survey contained 18 questions, with a mix of multiple choice and open ended questions.

The survey was developed as an online survey using SurveyMonkey. The survey was distributed in a number of ways, including:

- Link on the CEEI website
- E-mail notification to all local government CAOs through CivicInfo
- Community Energy Association local government listserve
- During the March 24 CEEI webinar

The survey was completed by 34 individuals. Of these, 32 were representing local governments, while two were completed by consultants. 7 responses were from regional districts, while 25 were from municipalities. All regions of the province were represented, with a wide range of population. Nearly half the respondents learned of the survey from the CivicInfo e-mail.

2. General Questions

90% of respondents indicate that local government staff will be the primary users of the CEEI reports. Only 21% indicate that consultants will be using the reports.

Respondents see the primary uses of the CEEI report being setting reduction targets and tracking progress. Use in developing a GHG plan and actions, as well as comparing with other jurisdictions, are also seen as likely uses.

Only 19% of respondents indicated the CEEI report would be very useful to their immediate needs. Most indicated it would be somewhat or quite useful. Comments from this question indicate that the somewhat low level of perceived usefulness is due to concerns about accuracy and boundaries.

Almost everybody considered the layout and format of the reports to be acceptable or very good. Comments included requests for more graphs, more explanation of data, and to provide the reports in a spreadsheet format.

Only 27% indicated the User Guide provided sufficient detail on data and calculation methodologies, while just under half indicated they would like more detail.

When asked what supplemental information would be useful in the CEEI reports, population data and trends was the most commonly requested item. Other requests included historical data, regional comparisons, and economic data.

When asked how the Province can best support local governments, requests included more webinars or workshops, assistance with target setting and actions, comparative benchmarking data, and more detailed explanation of data and methodology.

3. Sectors and Breakdowns

Respondents were asked what additional categories they would like to see included in future reports. Only land-use change at the municipal level was indicated as quite or very important by more than half of respondents. Other categories were considered less important by a majority of respondents, with agriculture garnering the lowest level of support.

Respondents were asked what additional fuels should be included in the Buildings category. Heating oil was considered quite or very important by a majority of respondents, while slightly less than half indicated the same for wood. Propane was not considered as important, with only one-third considering it quite or very important.

Over three-quarters of respondents indicated that including breakdowns of buildings into further categories would be quite or very important.

There was less interest in additional transportation categories, with very few respondents considering them to be very important. The category with the most interest was Rail, with 42% indicating it was quite or very important.

95% of respondents were satisfied with the vehicle categories that are provided. This is in spite of having reduced the number of categories from the 2005 pilot reports.

Respondents were given an open-ended question to ask for comments on the solid waste sector. There were 14 comments submitted, most asking for more detail on how the calculations were done. There was also some questioning of the methodology chosen, and whether it was the right one.

Respondents were given an open-ended question to ask for comments on the land-use change sector. There were 7 comments submitted, including requests for data at the municipal or electoral area level, as well as a caution on the validity of this data and the appropriateness of providing it.

4. Comments

There were many opportunities provided for comments throughout the survey, including an open-ended question at the end. Many comments were received, and are listed in the appendix. Some of the key themes are summarized below:

- Concerns about the accuracy of data related to the postal code boundaries issue.
- Requests for more detail on how the data has been collected and calculated.
- Requests for spreadsheet versions of the reports.
- Requests for heating oil data.
- Desire to see more accurate identification of building types (residential, commercial, industrial).
- Concern or confusion about the solid waste methodology.
- Desire to see population trends included in the reports.
- Requests for comparisons or benchmarks.
- A need for assistance with target setting and development of actions.

- Many comments were complimentary, thanking the Province for developing these reports.

5. Conclusions and Recommendations

1. The postal code boundary issue is a major concern for the effected municipalities, and should be corrected as much as possible.
2. There is a strong desire for detail on how data was obtained and calculation methodologies used. The Technical Methods document should resolve this.
3. Although it may be difficult to fit within the space available, CEEI should try to incorporate population data and trends, or at least let local governments know where they can obtain this information.
4. Additional information should be provided to local governments on how CEEI reports can assist in the development of reduction targets and actions.
5. Although the practicality of including heating oil has been investigated in the past and found to be fairly complex, this is important to a number of local governments, and CEEI should attempt to provide some level of data to assist in this area.
6. CEEI should revisit with ICBC the issue of releasing the reports in spreadsheet format.



Appendix

Survey Summary
User Comments

11. Would further breakdowns of the Buildings category be useful to you?					
	Very useful	Quite useful	Somewhat useful	Not useful	Response Count
Residential building types (eg. multi-family)	44.4% (12)	33.3% (9)	14.8% (4)	7.4% (2)	27
Commercial building types (e.g. schools, office, etc)	44.4% (12)	37.0% (10)	14.8% (4)	3.7% (1)	27
Other	50.0% (1)	0.0% (0)	0.0% (0)	50.0% (1)	2
				(please specify)	3
	answered question				27
	skipped question				7

12. The Transportation category includes information for on-road vehicles. Are other types of transportation desired or required to meet your needs?					
	Very important	Quite important	Somewhat important	Not important	Response Count
Air	4.2% (1)	29.2% (7)	25.0% (6)	41.7% (10)	24
Marine	8.0% (2)	12.0% (3)	40.0% (10)	40.0% (10)	25
Rail	19.2% (5)	23.1% (6)	19.2% (5)	38.5% (10)	26
Off-road transportation	8.0% (2)	16.0% (4)	28.0% (7)	48.0% (12)	25
Other	20.0% (1)	0.0% (0)	20.0% (1)	60.0% (3)	5
				(please specify)	6
	answered question				26
	skipped question				8

13. The Transportation category includes various vehicle sub-categories. Are these sub-category breakdowns appropriate? (Please refer to your inventory for details if necessary)

		Response Percent	Response Count
The sub-category breakdowns given are appropriate		95.8%	23
I would like further breakdowns of the categories or different categories		8.3%	2
(please specify categories you would like to see)			3
answered question			24
skipped question			10

14. Please give any comments or concerns you may have regarding the Solid Waste category.

		Response Count
		14
answered question		14
skipped question		20

15. Please give any comments or concerns you may have regarding the Land-Use Change category (only provided for Regional Districts at this time).

		Response Count
		7
answered question		7
skipped question		27

16. Is there any other supplemental information (e.g. policy relevant indicators, population trends) that you would like to see in future CEEI Reports?		Response Count
		15
	<i>answered question</i>	15
	<i>skipped question</i>	19

17. Please comment on how the Province can best support you in understanding and utilizing the CEEI inventory reports?		Response Count
		15
	<i>answered question</i>	15
	<i>skipped question</i>	19

18. Please add any additional comments.		Response Count
		11
	<i>answered question</i>	11
	<i>skipped question</i>	23

Survey Comments

Note: In some cases comments have been edited to protect the privacy of the respondent.

Q: How useful is the 2007 CEEI inventory for your immediate needs?

- The inventory is very useful as a starting point, although we have some concerns with the accuracy of some of the data (e.g. transportation, solid waste, and building breakdown categories) - obviously as the inventory improves over time it will become more and more useful.
- Emissions should be reported by scope (1, 2, 3), in addition to the aggregate number. The approach that has been taken for reporting waste emissions is not consistent with best practice inventory protocol. When using Waste-in-place emissions quantification methods it is assumed that you will report Scope 1 emissions. These emissions should only be assigned to the jurisdiction within which they occur. Furthermore, there is very little connection between the amount of waste sent to a landfill in a given year and the amount of methane that is generated by the landfill in the same year. A methane-commitment method is much more policy relevant and appropriate for assigning an emissions number to each jurisdiction. Closed landfills should be included in the CEEI inventories in the future. Landfills continue to emit GHGs for decade after they have been closed.
- CEEIs being produced for electoral areas and boundary issues resolved, 4 of the 6 member municipalities in our RD have inaccuracy issues due to boundary problems. I assume that means the neighboring EAs do too
- Given the predominance of agriculture in our community, an estimate of farming related emissions would be useful.
- The data needs to be able to be broken down to the Electoral Area level. The current level of data is too broad, given that we have many different communities and many different OCP's.
- It would be more useful to have access to the background data and the methodology and factors used.
- Keep the data coming - future inventories will be watched closely to see the impact of reduction actions.
- The municipality has yet to start activities/plans in this area.
- need information based on municipal boundaries, not postal codes
- More detailed info on how the numbers were calculated so that we can compare with our earlier numbers. As well, a definition between commercial and industry as far as how they were split out
- More tangible metrics for comparison with other municipalities: we'd like CO2 per capita and CO2 per square kilometer to be listed for each municipality, and for our CO2 per capita and per square kilometer to be compared to the BC average.
- Is there a possibility of benchmarking with other communities of similar size?

- Some example reduction strategies and resulting emission reductions would be useful as would some real case studies from other municipalities.
- We have done some of this work, and are already started on incorporating ghg reduction targets into the OCP. If anything, timing (earlier release). As each inventory is released, the annual updates will be of value.
- Data on municipal infrastructure
- We are hoping to develop our own reporting
- The City of xxx has already completed its own corporate and community GHG emission inventories
- The report does not accurately reflect the Village of xxx, due to the system used to determine the area, the system uses destination and postal codes, for example xxx Proper has two postal codes, however the information reflects large areas outside the Village boundaries
- Provide some back up information on how things were estimated.

Q: How did you find the layout and format of the report?

- It would be useful on the first page to show energy use as another pie chart so the focus is not just on GHG reduction but also energy efficiency.
- report should differentiate between actual data (from utilities) and estimated. Vehicles
- Would like it in excel in order to make graphs and charts. The cover sheet for the 2005 was better. The 2007 cover sheet does not have a quick reference to the coefficients used and how the data was derived for the sectors. This is useful as we cannot always flip over to the web to check /explain the data
- Graphs for each of the sectors as well
- Very clear and well presented.
- Inventories could be more clearly explained.
- information needs to be based on municipal boundaries, not postal codes
- It would be helpful to split the pie chart into further categories - industrial, commercial and residential; when you are comparing between communities, there could be huge differences here (particularly industry)
- If report were available in multiple formats (PDF as well as excel) it would make it easier to prepare our own graphics and analyses using this data. An ArcMap data layer would also be appropriate. The ability to 'understand' the data depends on a frame of reference or comparison-- it would be nice to see provincial average GHG composition on the first page of each report. I would also like to see a small context map locating the municipality within BC.

- Over the next few years, it will be helpful to have a spreadsheet version that we can try different reduction scenarios.
- I recommend separating commercial vehicle transportation totals, from personal vehicle transportation totals as much as possible. I also notice there is no GHG amount for public transit - busses. If communities want to shift to public transit, but still keep GHG emissions low, this might be useful information.

Q: Was there sufficient detail in the User Guide for your needs?

- The user guide is well written with a lot of useful information. However, more detail would be helpful in terms of which specific data sources were used.
- The DRAFT methods document provides some useful explanations, but leaves out many important details. In the future it would be useful to include a table with all of the emission factors and assumptions made. For example, it is stated that "it is assumed that the composition of waste (percent organic, paper, plastics, etc.) at all British Columbia landfills is the same," BUT the percentage breakdown is not given. What values did you use for Lo and K? What methane capture rate did you assume?
- In the end, we need these figures need to be defensible against scrutiny. I'm not sure that the level of detail provided in the user guide ensures this.
- More information is needed
- More detail is required to help us identify discrepancies with our own 2002 baseline - very large in the commercial and industrial sectors

Q: Please identify any errors, omissions, concerns about accuracy, or other issues you may have encountered with your preliminary CEEI inventory report.

- We have some concerns about the breakdown between commercial and residential buildings for Terasen data as some buildings cannot be clearly assigned to a specific subsector. We also look forward to improved VKT information through the future collection of odometer data. A statement of solid waste mass in tonnes tipped along with the GHG emissions would be useful.
- one typo on the electricity generation units in a table in the guide.
- Sector overlap. Transportation estimates are not accurate. This is not the fault of the CEEI, but we need data specific to our community, i.e. ICBC must take odometer readings each year so we accurate VKT data. This is critical as transportation is responsible for a large portion of our GHG's
- As mentioned in earlier comment box
- No concerns.

- calculations for automobiles, postal code overlaps, not specified by electoral area.
- If supplied with background data and methodology that would be helpful to verify the inventory. Home heating oil and off-road vehicles are missing.
- Xxx's postal code includes RD areas - unsure of the impacts to xxx's figures.
- In order to be of use to us, information needs to be based on municipal boundaries, not postal codes - transportation behaviours vary widely between groups within and outside the village boundaries. Also needs to include information about wood, propane and oil heating.
- Why did the CO2e factor double for landfills between the 2005 and 2007 data set? With 4 rail yards locally, their contributions could be large.
- Surrey and White Rock data need to be separated.
- Need some more time to digest and to complete our corporate inventory to compare to.
- Oil-fired furnaces are still prevalent but not captured
- The numerical values of the CEEI report were not that different, on the whole, from our own inventories

Q: Are additional categories desired or required to meet your needs?

- I think the inventory would defer a lot of criticism if it placed marked these activities with a row in the table but then said simply. "For possible future development". I really think that getting into these other areas becomes a distraction from the actions required by munis which is to reduce fossil fuel combustion.
- water collection/distribution could be interesting as it builds a case to support water conservation
- If land use change is recording deforestation, is it possible to list the inverse: carbon sinks from re-forestation?
- Energy around pump stations & water treatment
- street lighting, potable water

Q: Are other fuels desired or required to meet your needs?

- I think that these fuels should be placemarked as possible sources but the value should be shown as a dash with a comment line "For future development"
- Wood is interesting as it may gain prominence in the future as gas prices go up and Metro Van is promoting replacement of old wood fireplaces that increases the perception of the public that

wood is good - but there will be health implications too. It would be useful to somehow get data on the number of wood burning appliances there are in the community. Perhaps by building permits?

- Not within an urban centre that has natural gas as the main source of fuel, there may be some other forms of energy being consumed however for the cost to develop an accurate determination of the CO₂ being discharged would be of little value.

Q: Would further breakdowns of the Buildings category be useful to you?

- Any disaggregation is always useful - I understand the challenges and inaccuracies of doing this.
- light and heavy industry including a definition of how the categories are defined; every utility company seems to use their own definition
- Recreational facilities

Q: Are other types of transportation desired or required to meet your needs?

- Again - keep the focus on the local governments sphere of influence. There will be some communities where rail is relevant (e.g. PG has a rail yard down town) but for a community where a train passes through don't need to spend effort on those emissions.
- We would like to track marine, rail and air but it should not be included in the community totals as local government have no control or influence in these areas.
- Commuting using BC Ferries needs to be incorporated
- Please think about the impacts destinations have on communities. For example, Squamish gets all the emissions from vehicles on their way to Whistler. However, someone who fuels up in Burnaby isn't included in the "Whistler" impact. Please work with MOT to identify the GHG emissions coming from Highway use to 'destinations' like Whistler, the airport, etc.
- these transportation modes have provincial impacts
- how do you quantify the impact of the golf course (i.e. electric carts and maintenance equipment)?

Q: Are the transportation sub-category breakdowns appropriate?

- Don't even need this many. A
- It would be interesting to see vehicles that are registered for commercial use
- Highway vs. internal community use.

Q: Please give any comments or concerns you may have regarding the Solid Waste category.

- It would be useful to know the data source and the tonnage along with the CO₂e.
- The approach that has been taken for reporting waste emissions is not consistent with best practice inventory protocol. When using Waste-in-place emissions quantification methods it is assumed that you will report Scope 1 emissions. These emissions should only be assigned to the jurisdiction within which they occur. Furthermore, there is very little connection between the amount of waste sent to a landfill in a given year and the amount of methane that is generated by the landfill in the same year. A methane-commitment method is much more policy relevant and appropriate for assigning an emissions number to each jurisdiction. Closed landfills should be included in the CEEI inventories in the future. Landfills continue to emit GHGs for decade after they have been closed. (This is a bit nitpicking, but "methane commitment" is a more appropriate name than "waste commitment." You may create confusion by using it). Solid waste landfilled by waste type should be provided.
- I understand the limits of the methodology. The result though is that the inventory creates a drive to reduce waste - which mostly drives enhanced recycling, which doesn't actually change the emissions at all. Only when organics are removed does this change.
- How are the totals calculated. Do they accurately reflect the solid waste coming from each municipality. Is it actual tipping data from the transfer stations recorded for each municipality?
- Needs to be accurate to actual amounts produced by communities so that waste reduction initiatives are reflected.
- I'm slightly confused by this category. It doesn't seem to follow the same convention we've been using to convert our corporate solid waste weights to emissions in reporting our corporate emissions to the PCP program. In other words, using the formula we've been using for corporate solid waste, 33,029 tonnes of waste would equate to 19,168 tonnes eCO₂. The report indicates 12,194.
- need it broken down by electoral area.
- Generic model for gas generation may not be accurate for a specific site.
- Is there data available to differentiate between municipal and private collection? Or between residential and non-residential waste?
- we have concerns that the solid waste figures for local governments may be counted twice in some regional districts. Also some RD's may get carbon credits for emission reduction...do the member LG's share that credit or offset? There appear to be variable GHG factors used for municipalities which by reason should be proportional to the waste in place for each LG.

- The CO2 equivalent factor doubled between 2005 and 2007 - why? In our case, the solid waste is managed by the Regional District - is it better to include with their inventory or ours?
- What is the methodology here? Some of the methane from xxx's solid waste will be captured starting next year-- will this be taken into account, or is a simple CO2 per tonnes of waste calculation being used?
- Our experience at our landfill with engineering predictions is that the ghg emissions can vary by 1-2 orders of magnitude depending on how detailed the engineers are. There is a need to ensure that the calculations you are using are agreed to by engineers when doing more detailed landfill gas emission calculations.
- solid waste is handled regionally

Q: Please give any comments or concerns you may have regarding the Land-Use Change category (only provided for Regional Districts at this time).

- This should be included for municipalities if compact development is to be encouraged.
- Be careful about this stuff unless your methodology is dead certain - e.g. for Reg Dist of xxx the CEEI sites 771 ha for agr and settlement. Then the board could come back and say we only approved 12 ha of expanded municipal boundary and development - where is this from etc. etc. Someone else will ask about why logging hasn't been included. Since the methodologies here are intended for national scale estimates, I am concerned they are not suitable for local scale calculations.
- need an explanation as to what this is ??
- No concerns.
- need it broken down by electoral area.
- In order to provide comments, more info is needed.
- What is this based on?

Q: Is there any other supplemental information (e.g. policy relevant indicators, population trends) that you would like to see in future CEEI Reports?

- Population trends would be useful, although this information is already available for municipalities. The most useful improvements would be to gain odometer data and improve the accuracy of the existing information.
- Maybe have a total emissions for Northern (Central, lower) municipalities or a chart showing this.

- Perhaps include population.
- Population trend over time would be good, say from 1970.
- Population trends would be useful
- I can't think of any right now.
- Reduction targets and actual reduction trends.
- Using the 2007 report as a baseline can future reports provide the updated data and include a summary page that shows relative change since baseline and since last report?
- Population trends, rate of growth.
- Details on emission factors used would be useful.
- population
- Population estimates would be helpful to help compare between years
- Historical data from as far back as possible, preferably 1990 so as to be able to put current GHG levels in context and track trends. A paragraph interpreting the numerical data for each municipality in plain language for policy makers. Eg. "Comparatively more of xxx's CO2 results from transportation than other BC Municipalities... More of xxx's trips are taken using larger vehicles, which contribute a greater share of GHGs per kilometer..." etc. Needs to be really spelled out! I don't think the numbers will speak to the layman.
- Maybe a summary bar graph of emissions per capita or some other form of grouping to see what cities have worst/best emissions which could allow linking to certain characteristics about the city ie: cities with highest emissions per capita all have landfills, therefore efforts should focus on landfill gas reductions?
- economic impacts, baseline information

Q: Please comment on how the Province can best support you in understanding and utilizing the CEEI inventory reports?

- The Province and Enerficiency Consulting have been very supportive and accessible in answering questions with regards to the CEEI inventory. The webinar was useful and interesting. Thank you.
- Guide
- Better cover sheet. Web info.
- Help us with Bill 27 requirements and how to set and achieve GHG reductions

- It seems to me the province is doing a good job of this with what's already in place.
- Perhaps hold webinars where you go through a mock process for taking CEEI data and working it into a Plan.
- Provide a detailed technical guide with information on how amounts were calculated and all the background data and factors supplied so we clearly understand any limitations.
- Provide a webinar (or other resource) to follow-up on the inventory success, case examples, etc.
- hold workshops for LG officials to ensure we all understand the data and are able to use it and explain it to our elected officials.
- Please correct "spatial inconsistencies" to provide accurate data for (small/rural) municipalities, based on municipal boundaries rather than postal codes.
- A summary document containing selected information from ALL BC municipalities (CO2 totals per category, and category percentages).
- Example OCP reduction strategies and their reduction amounts- I realize that will come over time.
- More information regarding land use decisions and the impact on Greenhouse gas
- The Province can provide some province wide average GHG level or benchmarking indicators for cities.
- webinar or background documents

Q: Please add any additional comments.

- I think that these inventories should maintain their focus on energy use and related emissions. I would rather see effort devoted to capturing propane and heating oil numbers, or to improving the other energy data than devoted to adding agriculture and deforestation. Place hold those for the future - then you are criticized for excluding them but can let those metrics develop over the coming years. Where numbers are estimated they should clearly say "Estimated" transportation, and "estimated" solid waste emissions. I know the utility data have issues but these are still based on some record of actual consumption. I think the number of significant digits displayed implies a level of precision that cannot be supported by the data - next year some one will take the next ones and subtract a large number from another large number and state "We saved 23 tonnes". when rounding error could be 23,000 tonnes. Thanks for the opportunity - Hi russ, Ted, and Mike
- Thank you for providing the CEEI. It is very good and improving.

- Thanks for the valuable resource. It will be very helpful this year in completing our Community Energy & Emissions Plan.
- Good first step, but more is needed.
- Based on the current information it would be preferable to supply CRD solid waste and transportation model data to the CEEI to incorporate into the CEEI inventory.
- Good work on the webinar, it was very helpful.
- Our Community Diesel fuel consumption in your 2005 preliminary inventory showed 6,400,000 litre and in 2007 it shows 12,048,483 litres---this can't reflect reality. Something is wrong with one of these figures.
- thanks!
- Thank you very much for providing this data-- it is a great start and comes just as we are beginning our Local Climate Action Planning process.
- Thank you for doing this work, it will be very well used.
- it seems that a myriad of agencies, organizations and individuals are engaged in the same thing. i am concerned about duplication and overlap and a waste of scarce resources. better coordination between federal, provincial and local governments and agencies would seem to be in order