

2014 Carbon Neutral Action Report



Interior Health
Every person matters



“Engaged employees are the drivers to making reductions in our greenhouse gas emissions – the expertise and diversity of perspectives from people working in every area of IH is helping us to develop innovative solutions, minimize our environmental footprint, and ensure continued success.”

– Dr. Robert Halpenny, President and Chief Executive Officer

Interior Health is committed to minimizing our environmental impact by taking steps to promote environmental sustainability throughout our organization. I am pleased to share the overview of that work in our 2014 Carbon Neutral Action Report (CNAR).

In 2014, we began the process of moving to a more formal and structured approach to sustainability, where our actions focus on positive economics for health care while embracing the environmental and social responsibility we have to the community and society as a whole. Our approach continues to focus on:

- reducing our operating costs and continuing to drive innovative process redesign strategies using an “environmental lens”;
- reducing our environmental footprint (emissions, waste, water, and energy); and
- educating, encouraging, and engaging stakeholders (employees, partners, patients, and community) to take innovative steps to reduce their own carbon footprints.

I am proud of the progress we have made to reduce our greenhouse gas emissions. In 2014, Interior Health’s total emissions increased by only 0.7 per cent over the previous year. This year we have seen slowed or halted growth which is a considerable achievement given health care operates 24 hours a day, 7 days a week; we are high energy users; we produce a lot of waste; and we are major consumers of paper, water, food, and other resources. It all adds up to an organization with a large carbon footprint.

The reality is that every part of health-care delivery has an environmental impact. However, we have implemented initiatives to reduce our impact in a number of areas.

Interior Health has phased out toxic cleaning products throughout the region, as well as implemented site-specific initiatives to include “take-back” arrangements with some suppliers. Employees have also driven recycling initiatives that include the recycling of coffee grounds and food peelings for composting. Metal is also sent to recyclers and many sites are active with charitable organizations to recycle items no longer required, such as linens and medical equipment.

Additionally, we are always identifying new strategies to reduce both our water and waste. For example, our Support Services staff members now use micro-fibre mops and cloths, known to have a longer life span than traditional products, which helps to reduce turnover water use and waste.



To reduce energy use, our Facilities Management and Operations team ensures energy efficiency projects are examined during any routine retrofits in order to capitalize on project results. In 2014, we implemented specific energy retrofits of our facilities including new boilers and a major lighting upgrade, while still ensuring efficient operation of our facilities. In 2015 and beyond, we will continue with energy retrofits as well as assessing the economics of renewable sources such as biomass energy, which has been identified as carbon neutral and considered clean.

Overall, Interior Health has made great progress on a number of environmental initiatives in 2014, thanks in large part to the contributions and commitment of our employees; and we will continue with these focused efforts going forward. Engaged employees are the drivers to making reductions in our greenhouse gas emissions – the expertise and diversity of perspectives from people working in every area of IH is helping us to develop innovative solutions, minimize our environmental footprint, and ensure continued success.

Dr. Robert Halpenny
President & Chief Executive Officer



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Interior Health's 2014 Carbon Neutral Action

As required by legislation, this report outlines Interior Health's 2014 greenhouse gas (GHG) emissions profile and offsets purchased to reach carbon neutrality, lists actions taken to reduce GHG emissions, and describes IH's plans to continue reducing emissions in 2015 and beyond.

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Interior Health at a Glance

Interior Health (IH) was established as one of five geographically-based health authorities in 2001 by the Government of British Columbia. It is responsible for ensuring publicly-funded health services are provided to over 742,000 residents of the Southern Interior.

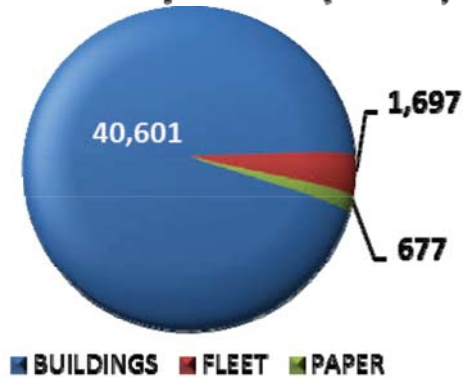
IH serves a large geographic area covering almost 216,000 square kilometres and includes larger cities such as Kelowna, Kamloops, Cranbrook, Trail, Penticton, and Vernon, as well as a multitude of more rural and remote communities.

IH's 2014 Greenhouse Gas (GHG) Emissions Profile

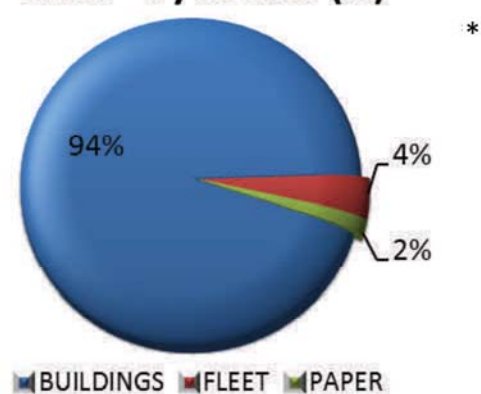
Greenhouse Gas Emissions by Source for the 2014 Calendar Year (tCO₂e*)

Consumption data was compiled from utility vendors and suppliers to determine IH's carbon footprint for the 2014 calendar year. The following charts provide an overview of IH's emissions by source for the 2014 reporting year. The majority of IH's emissions are derived from fossil fuels (natural gas/propane) to heat our health-care facilities.

GHGs* By Source (tCO₂e)



GHGs* By Source (%)



Offsets Applied to Become Carbon Neutral in 2014

Total Emissions, Calendar Year 2014: 43,051*

Emissions which do not require offsets: 77*

Total Emissions for Offsets: 42,975*

Total Offset Investment, Calendar Year 2014: \$1,074,375*

The totals for tCO₂e are shown here rounded to the nearest whole metric tonne as only whole tonnes of tCO₂e can be purchased for offsets. It was estimated that fugitive emissions comprise less than 0.01% of IH's total emissions, and the ongoing effort to collect or estimate emissions from this source annually is disproportionately onerous. These emissions meet both the requirements to be below 1% of IH's total emissions and onerous to collect. For these reasons, emissions from this source have been deemed to be out-of-scope and are not included in IH's total greenhouse gas emissions profile or offset purchase.

* tonnes in carbon dioxide equivalent

**Emissions requiring offset purchases.

GHG Emissions Summary

In 2014, IH's total greenhouse gas (GHG) emissions were 43,051 tCO₂e. Of the total GHG emissions, 77 tCO₂e qualified as offset exempt or carbon neutral, therefore our total GHG emissions for offsets were 42,975 tCO₂e.

Our GHG emissions offsets in 2014 increased slightly by 0.7 per cent over the 2013 GHG emissions offsets and this is mainly attributed to consumption increases in natural gas and diesel used within our buildings portfolio.

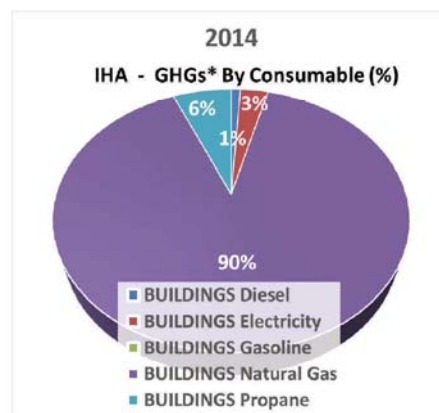
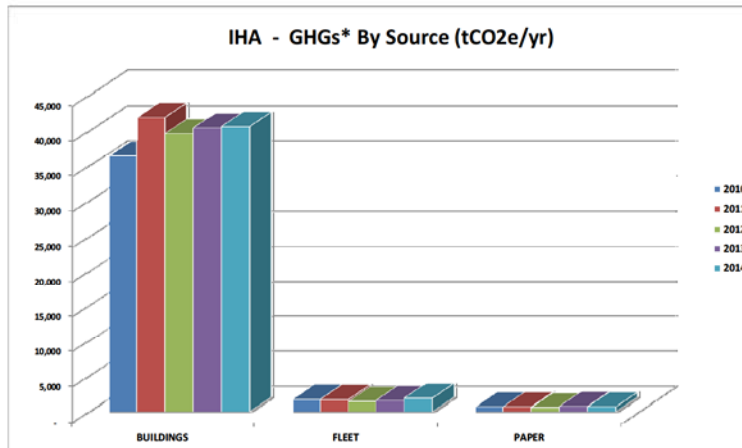
Buildings Portfolio

The majority of our GHG emissions resulted from the energy used to heat and cool our facilities and buildings and account for 94 per cent of our overall emissions.

In 2014, the consumption of natural gas increased by 1.1 per cent compared to 2013 and accounted for 90 per cent of our GHG emissions. Consumption increases are due in part to:

- More leased spaces reported in 2014 than in 2013; IH's space needs fluctuate on a yearly basis due to changes in program and service delivery, as well as other efficiency changes.
- In 2014, the weather in B.C. was warmer compared to the 30-year average, therefore more energy was used to cool our facilities in the summer months.
- Lastly, and although less of a factor, the increase in the number of full-time equivalents (FTEs) in 2014 over 2013. We acknowledge the correlation between increased FTEs and increased emissions is not always direct¹, however more FTEs may also translate to increased energy consumption within a building.

Despite the increased number of leased spaces or buildings, warmer weather, and more employees working in our buildings, IH is pleased to report that there was little growth in energy use in 2014.



Fleet Vehicles

Our fleet vehicles GHG emissions increased in 2014 over 2013 levels. IH's region covers over 215,000 km², and a significant amount of our travel is only possible by vehicle. Vehicles are used by program delivery staff required to travel to clients' homes to provide care, or by our plant managers and logistics team members who are required to travel between facilities and communities to ensure smooth operations and that all sites have the required equipment. With continuous improvements and changes to the delivery of patient care as well as our organizational structure, the net result occasionally means an increase or impact on our fleet vehicle use.

Paper Consumption

Our paper consumption in 2014 decreased by over 10,000 packages of paper, compared to 2013 consumption amounts. Although paper accounts for only 2 per cent of our overall emissions, we are pleased with the reduction in paper consumption both from a GHG and cost perspective.

¹ FTEs can increase without an increase in emissions and vice versa.

Emissions Reductions Activities



The following is a high-level summary of activities Interior Health has continued from previous years, as well as new projects initiated in 2014.

IH has been a “carbon neutral” organization since 2010. As part of B.C.’s *Greenhouse Gas Reduction Targets Act (GGRTA)*, all public sector organizations in the province are carbon neutral. This includes all government ministries, Crown agencies, school districts, health authorities, and post-secondary institutions. To achieve carbon neutrality, IH measures our carbon footprint, reduces it where we can, and offsets our emissions annually so that the remaining emissions are net zero.

We have invested in 210,282 tonnes of carbon offsets since 2010. That’s the same as preventing 89,652,965 litres of gasoline being consumed or taking 44,307 passenger vehicles off the road for a year.

Since 2010, we have reduced operational GHG emissions as much as possible; and through the Pacific Carbon Trust, and now the Ministry of Environment, we have invested in high quality, BC-based carbon reduction projects. During the 2014 calendar year, IH took steps to reduce emissions from all sources covered by the GGRTA – vehicle fleet fuel use; paper use; and the most significant source of emissions, our buildings.

IH’s carbon footprint is due in part to our large region – consisting of over 216,000 square kilometres and including four regional hospitals, two tertiary hospitals, 24 health-care centres, 16 community hospitals, and residential care sites with more than 6,566 beds. As well as occupied beds, more than 1,500 physicians, 19,000 staff, and 4,800 volunteers work in our facilities, all of which consume energy and paper or use our fleet vehicles to ensure IH delivers health services to the highest professional and quality standards.



Green Construction and Renovation

IH strives hard to reduce energy consumption in its buildings. As part of the [BC Climate Action Plan](#), we construct our IH-owned new facilities to meet a minimum of LEED (Leadership in Energy and Environmental Design) Gold design standard. The new Interior Heart and Surgical Centre in Kelowna, B.C. is being built to LEED Gold standards and will showcase the use of B.C. timber products in a health-care setting, in accordance with BC’s Wood First Act. In addition, renovations and retrofits, such as the Intensive Care Unit upgrade and the electrical project at East Kootenay Regional Hospital in Cranbrook will provide an enhanced care environment for patients by optimizing the electrical system performance, as well as maximizing natural light.

Waste Management



IH recycles as much waste as possible. We recycle paper, cardboard, plastic, lights, batteries, bottles, and cans in our facilities.

In 2014, IH recycled approximately 90.2 metric tons of wood, 1,894 metric tons of recyclables, and 1.8 metric tons of yard waste. We also promoted and identified more battery recycling throughout our facilities because we estimated we may be able to divert an additional 20 metric tons from the landfill. Through further analysis, we see a potential to divert another 32 per cent of our waste destined for the landfill by recycling more wood, recyclables, and yard waste. We are currently working with our waste management contractors to find greater efficiencies.

Recycling Benefits

Benefit	Current	Potential
Mature Trees Saved	28,910	39,574
Kw-hr of Electricity	7,225,368	10,287,136
Litres of Water Saved	6,644,400	9,611,000
Greenhouse Gas Avoidance (MT)	2,175	3,273



As well, we have improved the information we share with our employees. Our internal web site now includes toolkits to enable and empower employees to initiate a local recycling program at their site, if one doesn't already exist. The information on this site also provides best practices and reminders of how to safely dispose of medications.

Energy Efficiency



IH continually improves our use of energy. We track and manage our energy use on a facility-by-facility basis and regularly assess metrics to identify areas requiring improvement.

We've installed efficient lighting and heating/cooling systems in buildings that we own, and our information technology equipment has been made more efficient through computer upgrades. In 2014, in order to maintain the highest quality of service in IH, approximately 4,565 older computers were replaced with more energy efficient hardware, through our Technology Refresh Program, which started in 2013.

As a [BC Hydro Power Smart Partner](#), we implemented a major lighting upgrade, including mechanical controls at Royal Inland Hospital in 2014. This upgrade is anticipated to reduce electrical use by 679,000 kilowatt hours (kWhs) per year, as well as avoiding 365 tonnes of carbon dioxide equivalent (tCO₂e) per year – enough to power about 42 homes annually. We continue to conduct energy savings opportunity studies in order to implement the best energy efficiency gains in our facilities.

In 2014, we replaced older inefficient boilers at two facilities, anticipated to save over \$30,000/year in natural gas and electricity and avoid approximately 560 tonnes of CO₂ emissions per year. In 2015, we have planned an additional five boiler replacements to reduce our natural gas consumption and avoid another 172 tCO₂e in



Photo Credit: Workplace Conservation Program, BC Hydro (WCAP), Royal Inland Hospital, Kamloops, B.C.

Fuel Efficiency



IH's fleet of corporate vehicles is used to serve approximately 742,000 residents living within our 215,000 km² region. With the breadth of services provided, some staff members travel between facilities and communities to ensure operations run smoothly and that all sites have the supplies necessary to provide care. IH works hard to ensure that travel is kept to a minimum and, when travel is necessary, that it is done in the most efficient way possible. We are looking at internal processes including technology solutions to assist staff to identify carpooling opportunities for travel to other regions to limit single-occupancy car use of our fleet vehicles. This will assist in reducing our GHG emissions from our fleet use.

Our fleet use accounts for 4 per cent of our emissions or 1,697 tCO₂e. Wherever feasible, when vehicles reach their end of life, we analyze whether they can be replaced with more fuel-efficient or hybrid vehicles. Due to our diverse region and the amount of rural driving, it is not always possible to convert to electric vehicles or vehicles requiring alternative fuels due to the lack of infrastructure in place in the Southern Interior.

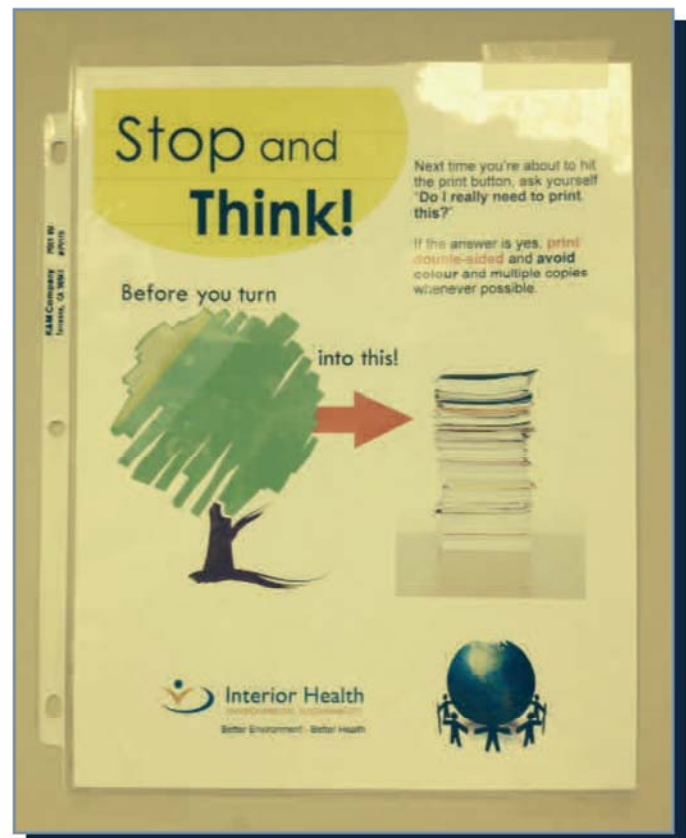


Paper Conservation



IH conserves paper resources through various operational paper-saving initiatives. In 2014, we reduced the amount of paper we consumed by over 10,000 packages, due largely to smart printing practices and increasing our use of more post-consumer recycled content paper. Paper consumption accounts for 2 per cent of our total greenhouse gas emissions.

As well, we are participating in a pilot with our health authority partners in B.C. to identify other sources of paper having less GHG emissions associated with their production, compared to virgin or recycled paper. For example, we are testing options such as wheat sheet paper, because the greenhouse gas emissions associated with the production are 12 per cent lower than paper made entirely from recycled pulp. Furthermore, we will continue to look for opportunities to increase the amount of recycled content paper by discussing supply arrangements and costs with Health Shared Services BC (HSSBC).



Employee Engagement



Interior Health refreshed the Environmental Sustainability portfolio in 2014, including a redesign of a website which supports and further engages those employees who are passionate about the environment. The website was designed as a front-line communication tool, and has multiple features including tactics to solicit employee feedback and new ideas to reduce our environmental footprint. As well, regular poll questions are featured on our employee intranet home page seeking feedback to assist in creating momentum and interest in behavioural change initiatives. Initiatives such as Earth Day, Carpool Month, and Bike to Work Week are also promoted by our Communications team via regular newsletters to staff.

To further influence behaviour change, we have improved employee education through our new website. This site contains facts and figures on IH's footprint, as well as toolkits to enable and empower employees to initiate a local recycling program at their site, if one doesn't already exist. The information on this site also provides best practices and reminders of how to safely dispose of medications.

BC Hydro

powersmart

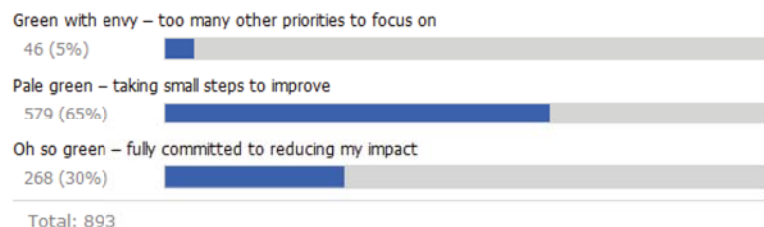
Our partnership with BC Hydro to design and deliver energy

conservation engagement initiatives through their Workplace Conservation Awareness (WCA) Program has helped to encourage staff action and support for a permanent culture of conservation within the organization. IH has been a WCA program participant since November 2011. We have also created a new program to replace former "Green Teams". Individuals now act as sustainability role models, encouraging behaviour change and engaging their colleagues to improve processes and create a culture of sustainability at IH.



Example of Employee Engagement Poll Results:

How green are you when it comes to caring for the environment?



2014 Carbon Neutral Action Report (CNAR) - Part 2 ACTIONS

<http://fluidsurveys.com/surveys/cas-z/cnar-2014-bps-actions/291d938cbca66a5c6b961fa4a80c1fcd/Page 1>

Please complete the following sections of the 2014 Carbon Neutral Action Report form. Save your work frequently to prevent it from being lost. You can also save a copy for your own use as either a WORD or PDF file using the buttons at the bottom of each page. This is Part 2 of the Carbon Neutral Action Report form. This section reports on actions taken to reduce emissions during the 2014 calendar year. This information will be included in your final Carbon Neutral Action Report posted on the Ministry of Environment website. When the form is complete press the submit button on the last page to automatically submit the information to the Climate Action Secretariat (CAS). Do not press submit before you are ready – this may result in a loss of work. In addition to completing this survey (Part 1 & 2), you are required to submit your completed Overview (Executive Summary) and Self-Certification Checklist. The 2014 Overview template was included in the email sent and can also be found on the LiveSmart leaders Community. Please ensure you meet the following reporting deadlines: The FINAL 2014 CNAR is due to CAS by May 29, 2015. The final 2014 CNAR includes Part 1 & Part 2 survey form and Overview. The Self-Certification Checklist is due to CAS by May 15, 2015. For more information about the Carbon Neutral Government process, please refer to Becoming Carbon Neutral 2014, or should you have any questions please contact climateactionsecretariat@gov.bc.ca.

Organization Name

Interior Health Authority

Actions Taken to Reduce Emissions

1) Stationary Fuel Combustion, Electricity (Buildings): Indicate which actions were taken in 2014:

Performed energy retrofits on existing buildings

- Yes

Built or are building new LEED Gold or other "Green" buildings.

- Yes

Undertook an evaluation of overall building energy use.

- Yes

Please list any other actions taken to reduce emissions from Buildings:

- Compared energy intensities between sites;

2) Mobile Fleet Combustion (Fleet and other vehicles): Indicate which actions were taken in 2014:

Do you have a fleet?

- Yes

Replaced existing vehicles with more fuel efficient vehicles (gas/diesel)

- No

Replaced existing vehicles with hybrid or electric vehicles

- No

Reduced the overall number of fleet vehicles

- No

Took steps to drive less than last year

- Yes

Please list any other actions taken to reduce emission from fleet:

- Developed information to educate staff on ways to reduce fuel on the environmental sustainability web site (will be linking this to the fleet web site);
- Developed a toolkit of best practices to encourage employees to use webex and video-conferencing (linked to IT's web site).

3) Supplies (Paper): Indicate which actions were taken in 2014:

Used less paper than previous year

- Yes

Used only 100% recycled paper

- No

Used some recycled paper

- Yes

Used alternate source paper (Bamboo, hemp, etc.)

- No

Please list any other actions taken to reduce emissions from paper use:

- Interior Health is participating in a pilot study/testing to identify whether wheat paper could be an option in the future. The pilot also involves Vancouver Island Health Authority and HSSBC. HSSBC is the buyer of our paper supplies and their involvement is important to ensure new contract negotiations with potential suppliers include wheat paper as an option in the supply chain. Vancouver Island Health Authority invited Interior Health to partner on this initiative in order to leverage equipment testing in progress at Vancouver Island and to limit duplication of any effort.

Explain how you plan to continue minimizing emissions in 2015 and future years:

Interior Health has many initiatives underway, as well as proposed for the future. They include:

- exploring software solutions that may be available to assist employees link to other employees who may be using a fleet vehicle to limit the number of single-use vehicles being used;
- identifying solutions to encourage and influence higher amounts of recycled paper being used (higher post consumer paper has a lower GHG conversion factor);
- increased and improved our employee engagement strategies, to encourage employees to own reduction ideas within their area of influence and participate in identifying solutions;
- Increased education to employees, including an i-Learn Module on environmental sustainability and energy efficiency to engage more employees;
- developing a communications plan and regular campaigns to provide updates/information to staff;

If you wish to list any other "sustainability actions" outside of buildings, fleet, paper and travel check "yes". This reporting is optional.

- No

Thank you for completing the 2014 Carbon Neutral Action Report. If this form is now complete please use the submit button below to forward it to the Climate Action Secretariat, otherwise you can save it to continue at a later time. Only use the submit button once the form is 100% complete. You can also save your own copy as a WORD or PDF file. Once you click the submit button, the Climate Action Secretariat will create a PDF summary of these actions to append to your final CNAR Overview when it is submitted. Together, these will be posted on the Ministry of Environment website by June 30, 2015 as your final report for 2014.

2014 Carbon Neutral Action Report (CNAR)

- Part 2 ACTIONS

Organization Name

Interior Health Authority

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Yes

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Yes

Undertook an evaluation of overall building energy use.

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Reduced the overall number of fleet vehicles

No

Took steps to drive less than last year

Yes

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Actions Taken to Reduce Emissions - continued

Explain how you plan to continue minimizing emissions in 2015 and future years:

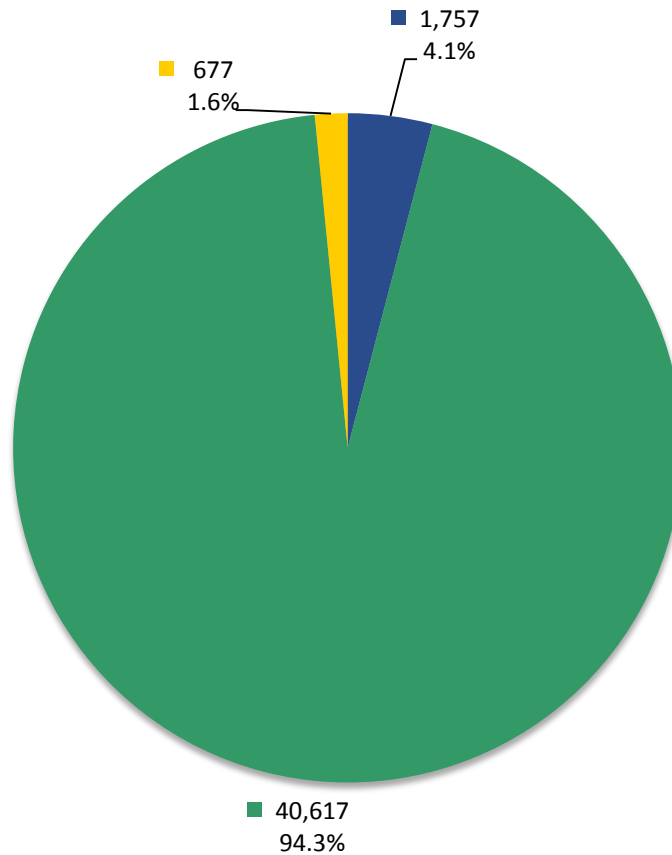
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- Increased education to employees, including an i-Learn Module on environmental sustainability and energy efficiency to engage more employees;
- developing a communications plan and regular campaigns to provide updates/information to staff;

If you wish to list any other "sustainability actions" outside of buildings, fleet, paper and travel check "yes". This reporting is optional.

No

Interior Health Authority Greenhouse Gas Emissions by Source for the 2014 Calendar Year (tCO₂e*)



Total Emissions: 43,051

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2014 (Generated June 22, 2015 4:19 PM)

Total offsets required: **42,975**. Total offset investment: **\$1,074,375**. Emissions which do not require offsets: **77** **

*Tonnes of carbon dioxide equivalent (tCO₂e) is a standard unit of measure in which all types of greenhouse gases are expressed based on their global warming potential relative to carbon dioxide.

** Under the *Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act*, all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.