

Environment

At ENMAX, being responsible and trustworthy are part of our core values and we recognize the importance of operating in an ethical manner and practicing sound environmental management. Our Environmental Policy outlines our specific commitments, which are summarized in what we refer to as our PACCT with the environment:

- P**revention of pollution;
- A**wareness of Environment Policy and aspects;
- C**ompliance with environmental laws, regulations & policies;
- C**ontinual improvement of environmental performance; and
- T**raining to ensure competence and minimize environmental impacts

We strive to minimize the impacts of our operations on the environment and to find ways to reduce our ecological footprint. Our Environmental Management System (EMS) is based on the International Organization for Standardization's ISO 14001:2004 standard. Each year, ENMAX conducts an internal audit of our EMS to assess its effectiveness in addressing significant environmental aspects of our business. Every three years this audit is conducted by a certified external auditor. As a member of the Canadian Electricity Association, ENMAX is also a part of the Sustainable Electricity Program (formerly the Environmental Commitment Responsibility Program), and reports annually on its sustainability performance.

With effective environmental management in place and regular internal and external audits, we're able to identify areas of risk and attempt to prevent incidents from occurring. In 2008, we did not incur any environmental fines or penalties directly related to ENMAX operations.

Read our Disclosure on Management Approach for [Environment](#).



Air

Air Emissions and Climate Change

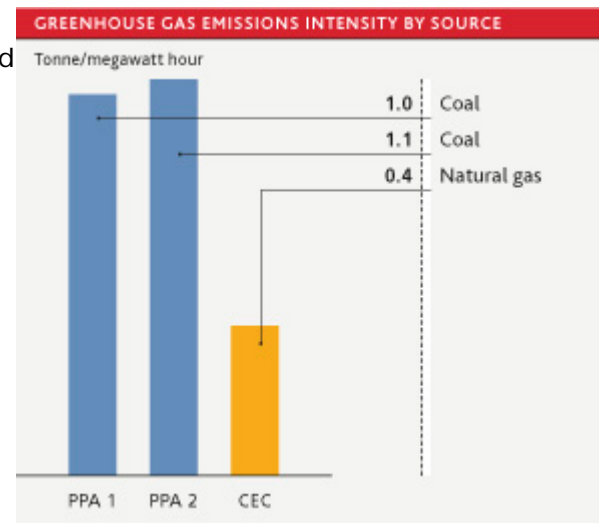
To supply enough power to meet our customers' needs, ENMAX Energy has a portfolio of options from which it can draw power. Currently, most of this power supply comes from coal-fired power plants that are not owned by ENMAX, but with whom we have Power Purchase Arrangements (PPAs). In essence, ENMAX has an arrangement with these plants to control the power dispatched, but does not own or manage the plants themselves. It is ENMAX's goal to eventually rely less on coal-fired generation and adopt less carbon intensive forms of generation for our customers.

Air Emissions from the PPAs

Greenhouse Gas Emissions

Emissions that come from burning coal at the PPA plants include greenhouse gases (GHGs). In 2008, approximately 10 million tonnes of GHGs were generated from PPA facilities and facilities with which ENMAX had tolling arrangements.

The Calgary Energy Centre (CEC) generated a total of 275,014 tonnes of GHGs in 2008. A traditional coal-fired facility with an emissions intensity of one tonne per megawatt hour with the same run time would have produced 675,529 tonnes of GHGs. The intensity of GHGs emitted from these different types of generation, supplied by ENMAX in 2008 is depicted in the graph to the right in tonnes of GHGs per megawatt hour (MWh).



The overall intensity of ENMAX's entire portfolio, in terms of annual tonnes of GHGs emitted per megawatt hour generated was 0.95 tonnes GHGs/MWh in 2008.

Under the terms of the PPAs and tolling arrangements, ENMAX became financially liable for compliance costs with Alberta's Specified Gas Emitters Regulation. In 2008, ENMAX incurred approximately \$21 million in environmental compliance obligations associated with GHG emissions. ENMAX reduced these compliance costs by applying almost 350,000 tonnes of GHG offsets from our investment in wind farms and purchases related to biomass and low-tillage offset projects. The costs incurred to ENMAX and paid into the Alberta Technology Fund, since the inception of the regulations, are shown in the following table.

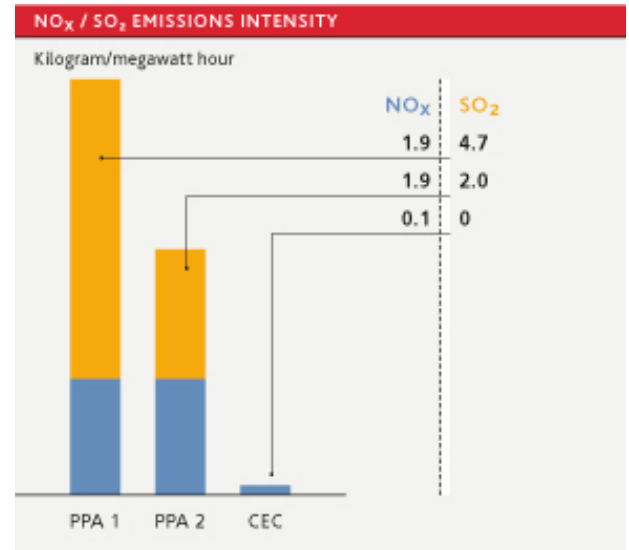
GHG COMPLIANCE COSTS	2007 6 MONTHS	2008	2009 ESTIMATED
Compliance cost (\$/t)	15.00	15.00	15.00
Total compliance cost (\$ millions)	9	21	22

ENMAX Purchase of Carbon Credits

ENMAX uses carbon credit offsets in accordance with Alberta regulations and protocols, to reduce the liabilities and costs associated with the GHGs our PPAs, and owned generation facilities generate. In 2008, ENMAX Energy signed a ten-year agreement to purchase agriculturally based carbon offset credits.

Other Air Emissions

In addition to GHGs, air emissions emitted from the coal-fired PPA plants include nitrogen oxides (NOx) and sulphur dioxide (SO₂). In 2008, these plants emitted a total of 29,085 tonnes of SO₂ and 17,592 tonnes of NOx. The ENMAX-owned CEC plant emitted 101 tonnes of NOx and zero SO₂, due to the negligible sulphur content of the natural gas used to fuel the turbines at CEC.



Advanced Technology Turbines Lower NOx Emissions at Crossfield Energy Centre

ENMAX's new Crossfield Energy Centre, now under construction and scheduled for completion in the fall of 2009, is among the first peaking facilities in North America to make use of ultra-dry low-NOx turbines. These units deliver improved control of the combustion process, which helps lower the amount of NOx generated by the natural gas-fired turbines to approximately 15 parts per million (ppm). This level is approximately 10 ppm lower than the 25 ppm of NOx generated by conventional natural gas turbines. The units also do not require water for their operation, an important conservation consideration.



In addition, the Crossfield Energy Centre will limit particulate emissions (e.g., soot), and emit about 0.55 tonnes of GHGs per megawatt hour (MWh), which is approximately 45% less GHGs than a traditional coal-fired facilities generate per MWh.

Peaking facility turbines must have the capability to come on quickly to respond to the variations in electrical load demand that occur throughout the day. ENMAX chose this turbine as it is able to excel at this primary function, while limiting emissions that are harmful to the environment.

Developing Waste Heat to Energy Projects

In September 2008, ENMAX, through a wholly owned subsidiary, along with a joint venture partner announced that commercial operations began at their jointly owned 5 MW Energy Recovery Generation (ERG) project in British Columbia, under the terms of a 20-year electricity purchase agreement with BC Hydro.

The plant, located in Savona, about 45 kilometres west of Kamloops, generates electricity from the waste heat created by existing gas compressors on a main natural gas pipeline. The ERG process captures waste heat from these compressors and converts it to pressurized vapour to drive a vapour turbine generator.

Our Energy Use and Internal Carbon Footprint

Some of our facilities are entirely owned by ENMAX and therefore the energy use for these is easily tracked (metered). Our largest building is ENMAX's corporate headquarters, which occupies 337,935 square feet. In 2008, this building used 20,872 gigajoules of natural gas and 8,375,812 kilowatt hours of electrical power. ENMAX's direct and indirect energy consumption at all our metered facilities is described in the table below:

ENERGY CONSUMPTION 2008	SQUARE FOOTAGE	NATURAL GAS CONSUMPTION	ELECTRICITY CONSUMPTION
		Gigajoules (Gj)	kWh
Metered Sites (Alberta)	613,650	52,725	11,502,760

Other facilities are shared and the energy used for office space can only be estimated (non-metered). We have not reported this energy use for 2008.

2008 Carbon Footprint

ENMAX calculates the amount of GHGs emitted from key non-generation contributors in our Calgary-based operations, including emissions from: our main (metered) facilities, releases of sulphur hexafluoride from electrical equipment, personal vehicle use for business purposes, and our companies' vehicle fleet.

In 2008, ENMAX established a key performance indicator (KPI) target of a 5% reduction in absolute emissions from our 2007 baseline of 15,375 tonnes of GHGs. This was not achieved due primarily to an increase of 500 employees or 28% of our workforce and their subsequent information technology and space requirements. Therefore, ENMAX's 2008 carbon footprint increased by 8.3% to 16,650 tonnes.

As a growing company, we see energy efficiency as a more realistic and motivating goal. Accordingly, our 2009 target is to reduce emissions intensity on a per employee basis.

Energy Efficiency Initiatives

Reducing Emissions from Fleet Vehicles

For 2008, we worked on an anti-idling awareness campaign that included implementing anti-idling zones around ENMAX facilities. Replacing older fleet vehicles with newer more-efficient vehicles is also a focus of our fleet management. In total, ENMAX owns 28 hybrid vehicles, two of which were purchased in 2008.



Distributed Generation Technologies

ENMAX is piloting with its employees an array of solar and wind power generating products for the Alberta marketplace, in an effort to make our organization the preferred source of renewable energy technologies for the home.

Distributed generation is currently at work at two ENMAX office buildings in Calgary. Solar panels installed at our headquarters are tied into the electricity grid and meters track their production. Two wind turbines installed at our South Service Centre location are also tied into the grid. Together they produce an estimated 800 kWh/month. Single or small turbine installations generate minor amounts of electricity and they also generate awareness of alternative energy technologies.



In late 2008, ENMAX Energy announced a pilot program to allow employees to invest in and install new micro-generation technologies to help power their homes. By being some of the first in their communities to install ENMAX solar panels, on-demand hot water heaters or micro-wind turbines, it is hoped that our employees will generate local interest in our new products and encourage other homeowners to consider these renewable energy options. Employees were also offered rebates on any micro-generation technologies and purchases of ENERGY STAR rated appliances.

The ENMAX Energy Interpretive Centre

In 2008, ENMAX Energy created a portable Interpretive Centre designed to display the latest alternative energy technologies we are currently exploring for the Alberta market to advance our plans to bring such technologies to the marketplace. The Interpretive Centre is equipped with a full kitchen, shower and utility room, and also features operating kitchen appliances powered by 100% solar energy via the photovoltaic and solar hot water heater panels mounted on the roof. In addition, it showcases the combined heat and power unit that ENMAX is researching, as well as energy efficient EasyMax® home services products.



Employee EcoPledge

ENMAX's EcoPledge program is intended to increase awareness among our employees about the many small, yet meaningful actions that can reduce their environmental footprint. The EcoPledge is also a key performance indicator for employees, which affects annual employee compensation. The number of employee pledges are tracked and employees are surveyed to determine what actions they've taken in areas such as reducing paper waste, recycling, minimizing electricity use, and using car pooling and teleconferencing as alternatives to single vehicle commuting and meeting travel.

Land

Land, Materials and Biodiversity

ENMAX operations affect land in Calgary, southern Alberta, and western British Columbia. In Calgary, ENMAX Power owns, operates and maintains the electricity infrastructure, which comprises 281 kilometres of transmission wires that deliver bulk power through 35 substations, and approximately 7,400 kilometres of distribution lines. Through its subsidiary, ENMAX Energy, ENMAX also owns, operates and develops generation facilities, including natural gas plants and wind farm in Alberta and run-of-river in BC.

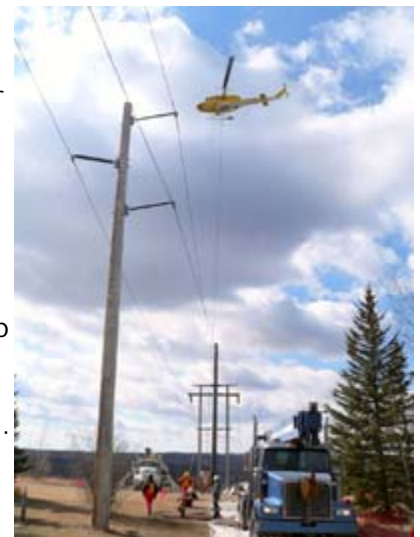
Wildlife and Habitat

ENMAX's day-to-day operations in Calgary do not typically affect wildlife or habitat. As part of our environmental management system, significant environmental aspects are reviewed periodically and controls are put in place to manage issues that may arise. We develop an Environmental Assessment or site-specific Construction Environment Management Plan for larger projects to ensure any potential impacts are mitigated. Although ENMAX doesn't own land in protected areas, our lines sometimes cross natural parks.

Weaselhead Park Transmission Line Rebuild, Calgary, AB

During February and March 2008, ENMAX Power completed the replacement of old power poles within and adjacent to the Weaselhead/Glenmore Natural Environment Park. The 17 new power poles extend from south of the Glenmore Reservoir through the Weaselhead Park, ending north of the reservoir.

ENMAX engaged stakeholders several months prior to beginning work on this project to ensure all stakeholder concerns, including those of The City of Calgary Parks Management and the Weaselhead Glenmore Park Preservation Society, were addressed, and to develop and implement measures that would preserve the park's ecological integrity. ENMAX Power commissioned an independent biologist to conduct a biophysical impact assessment of the project area in 2007. We followed all recommendations to mitigate any potential adverse environmental effects. For example, ENMAX Power conducted the construction activities while the ground was frozen and used a helicopter to install the power poles, avoiding the use of any heavy



equipment in the park. Construction workers used all-terrain vehicles on paved pathways only and walked into each pole-site by foot; all equipment was flown in and excavated soil was flown out using cement buckets.

These measures and the environmental management training of employees and contractors prior to the project reduced environmental impacts surrounding the worksite.

Environmental Assessment and Monitoring – Clowhom, BC Run-of-River Project

ENMAX, through a wholly owned subsidiary, began construction in 2008 on two run-of-river hydroelectric plants on the Clowhom River near the west coast of British Columbia. The combined capacity of the two projects will be 22 megawatts (MW).

Prior to construction, an Environmental Impact Assessment was conducted and all necessary approvals obtained. An Environmental Management Plan was developed to address all potential environmental concerns, from which a Construction Environmental Management Plan (CEMP) was developed to assist contractors in reducing potentially adverse environmental effects of construction. An Environmental Monitor is assigned to the project to ensure all staff and contractors adhere to the CEMP.



Project completion is anticipated for Fall 2009. Once built, an application will be made to have the plants certified under the EcoLogo[™] program.

On April 22, 2008, a brush fire burned out of control at the Clowhom run-of-river site while a contractor was clearing and burning debris. The immediate site action was insufficient to control the fire and the Ministry of Forests and Range (MOFR) was notified for fire response. Contractors took initial steps to control the fire with helicopter support until MOFR staff arrived. The fire was contained by April 23, limiting the affected area to approximately 40 hectares. MOFR crews monitored the site for hotspots and dealt with any problem areas. The fire was declared out on May 26, 2008.

Birds, Bats and Wind Farms, Southern Alberta

ENMAX has complete ownership of two wind farms in Southern Alberta. The Taber Wind Farm, east of Taber, Alberta, has 37 wind turbines and capacity to produce 80 megawatts (MW) of wind power. ENMAX, through a subsidiary, acquired the Kettles Hill Wind Farm, northeast of Pincher Creek, Alberta in June 2008. It has 35 turbines with a 63 MW capacity. Both wind farms have been operating since 2007.



As a result of the Environmental Impact Assessment process for both wind farms, two-year monitoring programs were established to measure the impacts on birds and bats. The tables below demonstrate the number of bird and bat carcasses found near the turbines at each wind farm.

In 2008, ENMAX, through a subsidiary, added Kettles Hill Wind Farm to its wind power portfolio. The chart below reflects the 2008 wildlife mortality rate for the Taber Wind Farm, as well as the Kettles Hill Wind Farm.

Bird and Bat Carcasses Found at the Taber and Kettles Hill Wind Farms

Since 2006, ENMAX has supported the University of Calgary's research on the impacts of wind farms on bats. In 2008, we joined a consortium of companies, called the Wind Energy Bat Research Group, to collaborate on our efforts and share research on the impacts of wind farms on bats. It is through this research that we hope to gain a better understanding of bat and bird fatalities and identify what mitigation measures can be used to reduce this impact.

ENMAX WINDPOWER PROJECT	NUMBER OF CARCASSES [2]	MORTALITY RATE [3]
		#/turbine/year
Taber	92	2.42
Kettles Hill	94	2.69

[1] Data was gathered from ENMAX 100%-owned wind power projects

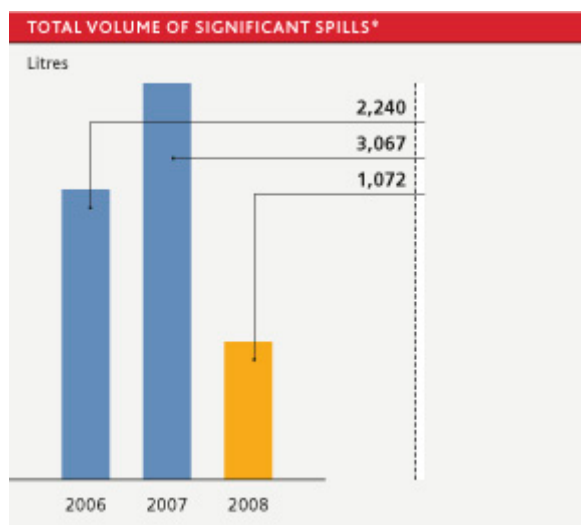
[2] Includes bats and birds (raptors and non-raptors)

[3] Sampling at Taber occurred from March 1, 2008 to February 28, 2009. Sampling at Kettles Hill occurred from July 14 to October 20, 2008

Releases and Reclamation

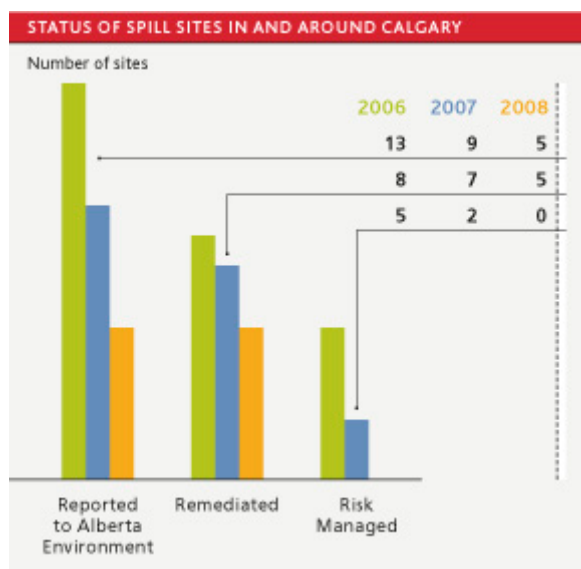
The existing and new electrical equipment installed to keep pace with Calgary's population growth is maintained and upgraded by ENMAX Power to ensure service reliability. Our Environmental Management System helps to ensure the significant environmental aspects of this work are identified and that proper controls are in place. Field crew training plays a key role in ensuring environmental impacts are mitigated. Despite proactive measures to avoid impacts, at times operations will result in a spill of fluids such as hydraulic oil or antifreeze from vehicles or equipment, and leaks or spills of oil from transformers. The majority of the larger releases are typically caused by public vehicle accidents (e.g., vehicles hitting a distribution transformer) or acts

of vandalism. The chart below presents the total volume of significant spills from 2006 to 2008.



*Significant spills include any spill reported to Alberta Environment because a potential or actual risk to the environment occurred. Although not regulated to do so, ENMAX reports any spill over 100 litres to Alberta Environment.

All significant spills reported in 2008 were cleaned up and no spills were left to be risk managed over a longer term. Risk management is a term used to describe sites where complete clean up is not possible due to the location or timing, or because no risk is presented to the surrounding environment. Three out of the seven formerly risk managed sites were remediated (impacted soil removed to legal land fill) in 2008.



Materials Management

Since ENMAX Power manages all the distribution (and some transmission) equipment within the City of Calgary, this business line uses the majority of materials that are eventually recycled or require disposal. The tables below indicate some of the materials consumed and/or purchased by ENMAX in 2008 and the amount of materials that were recycled.

Materials Purchased

MATERIAL USE	2008	2007
	Kilograms	Kilograms
Copper	885,051	807,503
Aluminum	227,400	173,649
Steel	8,287	5,670
Transformers	747,696	631,720
Wood poles	654,849	703,903
Mineral oil (litres)	635,513	405,822

* The majority of these materials are purchased through our supply chain for use by ENMAX Power Corporation.

Total Materials Recycled

MATERIAL	2008	2007	2006
	Kilograms	Kilograms	Kilograms
Copper	190,676	221,005	142,370
Aluminum	89,962	93,572	116,105
Steel	92,377	72,357	74,470
Transformer parts	138,523	220,539	134,599
Glass	3,093	1,364	11,007
Oil (reuse or recycling) (litres)	182,815	82,442	73,470
Florescent light bulbs (number)	17,176	N/A	N/A

N/A = not available

Type and weight of waste by type and method of disposal

This table indicates the various hazardous and non-hazardous materials that result from ENMAX operations in Calgary and what method of disposal is used.

WASTE NAME	MANAGEMENT	QUANTITY		STORED ON-SITE
		HAZARDOUS	NON HAZARDOUS	
Pressurized aerosol containers	metal recycled; gas incinerated	10 drums (~500 kgs)		
Spent batteries - wet batteries filled with acid (lead acid)	metal recycled; acid neutralized	2,707 kg		
Wastes from the use of paints, pigments and coatings (paint and thinner)	recycled	1,209 L		205 L
Wastes from the use of paints, pigments and coatings (debris, filters)	recycled		354 kg	
PCB-contaminated solids, sludges, or sediments > 50 ppm (rags/debris)	incinerated	160 kg		
PCB-contaminated solids > 50ppm (capacitors/ballasts)	incinerated	10 kg		
PCB-contaminated solids > 50ppm (lead cable)	metals decontaminated; solid incinerated	13,601 kg		3,440 kg
Non-PCB capacitors	recycled		989 kg	
Non-PCB paper insulated lead-shielded cable	recycled		6,052 kg	
Non-PCB electrical transformers	recycled		15,028 kg	
Soil impacted with mineral oil from spills	landfilled		222,930 kg	

* All waste materials are managed by approved and/or audited waste contractors.

ENMAX Power has retrofitted almost all of its transformers with non-PCB insulating oil. All large substation transformers and bulk oil breakers currently contain no PCBs or PCB levels fall well below the mandated limit. Only negligible amounts are left in higher concentrations in sealed equipment, such as bushings capacitors, relays and oil filled cables.

Water

Water Use and Conservation

ENMAX recognizes the value of water conservation and maintaining the quality of our water resources. ENMAX's current operations do not require large amounts of water and accordingly, this GRI Indicator is not material to our current operations. As our generation plants expand, so will our need for water resources.

On a smaller scale, our office headquarters is EcoLogo^M certified and has implemented a series of water conservation measures such as low-flush toilets and automatic sensor water taps.

