

CARBON DISCLOSURE PROJECT REPORT



JANUARY 2009 - DECEMBER 2009



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Company Profile

NiSource Inc. (NYSE: NI) is an energy holding company with headquarters in Merrillville, Ind., approximately 40 miles outside of Chicago. Our companies provide natural gas, electricity and other products and services to approximately 3.8 million customers located within the high-demand energy corridor that runs from the Gulf Coast through the Midwest to New England. Our business strategy is focused on our core, rate-regulated, asset-based businesses with substantially all of our operating income generated from the rate-regulated businesses. NiSource engages stakeholders across our operating area, including employees, shareholders, customers, regulatory and public officials, community leaders and partners, landowners and others in the general public who are interested in our company, operations, and services.

Natural Gas Distribution

Our natural gas distribution operations serve more than 3.3 million customers in seven states via approximately 58,000 miles of pipeline and related facilities. Our gas distribution subsidiaries provide natural gas to residential, commercial and industrial customers in Ohio, Pennsylvania, Virginia, Kentucky, Maryland, Indiana and Massachusetts.

Gas Transmission & Storage

Our gas transmission and storage subsidiaries own and operate about 15,000 miles of interstate pipelines that transport gas supplies from production and storage regions to markets across 16 states and the District of Columbia. We also operate one of the nation's largest underground natural gas storage systems, capable of storing more than 600 billion cubic feet of natural gas for our customers.

Electric Operations

Our electric business generates, transmits and distributes electricity to more than 450,000 customers in 20 counties in northern Indiana, and engages in wholesale and transmission transactions. Our electric supply portfolio includes both traditional and renewable generation.

Governance

At NiSource, a committee appointed by the Board of Directors carries the highest level of responsibility for all issues pertaining to climate change. All employees are expected to support climate change activities designed by the committee.

In the early 1990's NiSource established an Environmental, Health and Safety Committee of the Board of Directors that meets at least four times annually to address environmental matters, including climate change. It has recently been renamed the Environmental, Safety & Sustainability (ES&S) Committee. Regular updates are provided to the ES&S Committee of the Board of Directors as well as NiSource executive management.

In April of 2009 the Committee reviewed and approved a revised NiSource Climate Change Policy, which reads as follows:

NiSource actively considers economic, social and environmental values in conducting its business activities. In the course of providing natural gas and electricity to serve customers' energy needs, the core business activities of the NiSource companies result, directly or indirectly, in GHG emissions, which call for actions targeted at reducing these emissions.

NiSource companies are committed to meeting current and future environmental obligations, and will aggressively engage in activities to reduce potential risks and pursue opportunities associated with policies enacted to address the climate change issue.

NiSource is also committed to continuing to reduce the carbon intensity of its operations. NiSource will both meet the energy needs of its customers and address climate change issues through business activities which promote sustained economic growth in a manner compatible with its environmental obligations.

To these ends, NiSource will:

- *Remain an industry leader in accurately accounting for GHG emissions, and providing timely reporting and transparency in climate related activities.*
- *Increase the efficiency and reduce the carbon intensity with which NiSource companies provide energy to our customers by taking steps to produce and obtain electricity from sources with lower carbon intensity, increase natural gas transportation efficiency and reduce methane losses from natural gas transmission and distribution.*
- *Encourage our customers to use energy wisely by working with them to develop demand side management and energy conservation programs, along with ensuring that the revenue models under which regulated NiSource companies recover their costs are aligned with energy efficiency goals.*
- *Promote adoption of reasonable policies addressing climate change. In this regard, NiSource will support appropriately crafted federal legislation on climate change that:*
 - *Recognizes that GHG reduction targets must be applicable to all sources of GHG and be realistically achievable and consistent with projected availability of commercial technology*
 - *Protects against undue increases in energy costs to any particular regions or groups of consumers*
 - *Recognizes the environmental benefits of natural gas and promotes policies and practices that result in the continued efficient use of natural gas by all customers.*

Risks and Opportunities

At a corporate level, NiSource identifies and assesses risk through a risk management committee made up of members throughout the corporation and business units. Climate changes risks and opportunities are typically reviewed twice per year. In addition, management in individual business units regularly review risks and opportunities resulting from climate change on an ongoing basis.

Consumer attitude and demand for energy products and services will likely be influenced by a broad array of factors that are closely linked to the regulatory and market forces resulting from carbon constraints. As momentum builds to reduce GHG emissions, commercial risks potentially stem from regulatory requirements and increased energy costs to our customers.

NiSource is also subject to financial risk related to climate change. Depending upon the form of future regulation, NiSource could be subject to significant future costs. As a regulated utility, NiSource revenues are subject to approval by state or federal regulatory commissions. In the event these commissions do not allow NiSource to pass on future climate related costs to its customers, it could have a material impact on NiSource cash flow and profitability. Compliance with future regulatory requirements could also require NiSource to expend large amounts of capital. Raising large amounts of capital in uncertain economic times could present financial risks and impact liquidity.

Regulatory Risks

Currently, there are few regulatory impacts associated with climate change for our companies, since NiSource is an exclusively U.S. based company, and is not subject to any international or regional Greenhouse Gas (GHG) reduction programs. However, there continues to be debate in the U.S. about the scope of federal, regional and state programs to manage GHG emissions, and the prospect of mandatory climate programs within the NiSource operating areas appears likely. What is not entirely clear is the timing and final shape of such action(s). Federal legislation is being actively debated, and federal regulation is being developed. In addition, several state legislatures within the NiSource operating areas are in the process of or have approved certain bills related to climate change. These state bills are primarily focused on mandatory emissions reporting and voluntary reduction registries and have not included, to date, mandatory reductions.

Any GHG-related impact, whether risk or opportunity, will depend largely on the final shape(s) of these regulatory programs and will likely be largely influenced by the ultimate outcome of the U.S. Congressional debate on climate change. Since alternative environmental legislative proposals are in the formative stages, NiSource has been very active in various forums including with trade associations representing natural gas and electric companies to help shape potential regulations.

Currently the final form of any cap and trade program being developed is uncertain. NiSource reviews the various proposals and when possible estimates the potential costs. Costs under the various programs being discussed at this time could be hundreds of millions of dollars. However, these financial implications are expected to largely be mitigated through normal regulated utility cost recovery mechanisms.

NiSource has taken several actions to adapt to an anticipated cap and trade scheme, and the company has identified a number of other opportunities for improvement. These actions are detailed according to the branch of the company through which they have been completed.

Electric Operations Emissions Reduction Activities and Opportunities

The bulk of capital investment for reduction opportunities has been and will be in the electric business. The following bullets summarize key opportunities, several of which have already been undertaken:

- Heat Rate Improvement (capital-intensive projects designed to improve unit electric generation efficiency, including turbine control system upgrade, condenser tube replacements, cooling tower fill upgrade, feed water heater upgrade, air heater basket replacement, etc.);
- Generating station output/closing and utilization of new external power, including efficient natural gas-fired combined cycle gas turbine generation. NIPSCO has ceased operating one of its four coal-fired generating stations. Since the D. H. Mitchell electric generating station ceased operations in late 2001, NIPSCO has been securing cleaner external power commitments and/or internal generation including the addition of over 500MW of natural gas combined cycle generation and 100MW of wind through purchased power agreements;
- Electric steam turbine replacement projects-dense pack configuration;
- Neural net artificial intelligence system installations to learn and improve operation of electric generation unit emissions and efficiency profiles;
- With respect to existing renewable generation, NiSource currently operates two hydroelectric plants with a combined generating capacity of nearly 16.5 megawatts. Neither of these plants is in any government sponsored price support mechanism;
- Plans to introduce a number of demand side management programs.

Gas Transmission & Storage Emission Reduction Activities

NiSource companies have also been an active participant in the U.S. EPA Natural Gas Star program since 1993. As a result of participation, NiSource has and will continue to invest in programs that reduce GHG emissions. NiSource has implemented the following emission reduction programs:

- Directed inspection and maintenance of compressor stations as well as metering stations
- Identification and rehabilitation programs to reduce pipeline leakage
- Identification and replacement of high-bleed pneumatic devices
- Installation of excess flow valves
- Reduction of system pressure when not needed
- Installation of lower emitting turbines at compressor stations
- Installation of flares on dehydration units
- Use of clock spring repairs to permit defect remediation without blowing down the pipeline segment
- Installation of dry gas seals when installing new centrifugal compression
- Use of ultrasonic meters to better identify and fix leaks
- Relocation of fire gates to reduce lost natural gas
- Reduction of natural gas loss during compressor shutdown
- Redesign of blowdown and emergency shutdown practices
- Use of fixed and portable compressors for pipeline pump-downs
- Installation of electric starters
- Rerouting of glycol skimmer gas
- Capture of methane from liquids tanks

In addition, NiSource's Natural Gas Transmission and Storage is expanding transmission and storage capabilities. The expansion projects are incorporating lower emitting technology and storing and delivering gas at a lower GHG intensity.

Bay State Gas Brightfield Project

The NiSource Bay State Gas subsidiary was a partner in the development of the Brockton Brightfield Project to install 425 kW of solar power to convert an idle brownfield site into a productive, revenue generating asset. This solar array is the largest in New England and the largest Brightfield nationwide. It will generate over 535 megawatt hours (MWh) of electricity per year carbon free - enough to power over 70 homes.

Physical Risks

NiSource may also be subject to physical risks, although these are much harder to project than regulatory risks. It is difficult to predict specific potential impacts resulting from climatic changes on NiSource businesses, or to separate the specific impact of normal weather events from the potential long-term effects of systemic climate change. NiSource operates an extensive energy delivery system, comprised of both underground and above ground facilities, located across a wide geographic area. Extreme weather events creating physical damage to NiSource's facilities may result in an interruption of the delivery of natural gas or electricity. Customer demand for energy is sensitive to temperatures—both for electricity required for summer cooling, as well as natural gas used for heating in the winter. Therefore, changes in temperature patterns will also impact the demand for energy.

It is anticipated that NiSource companies will continue to have the opportunity to work with regulators in various states to create appropriate mechanisms to increase energy efficiency and indirectly reduce GHGs. Currently, NiSource is working with regulators in several states to implement demand side programs which offer a variety of incentives for encouraging energy conservation and efficiency improvements to customers. In addition, there is renewed interest and growing support for regulatory strategies that separate, or decouple, the recovery of fixed system costs from the volume of gas delivered to customers. NiSource continues working with regulators to formulate effective strategies for expanding these types of programs to a broader customer base in a manner that achieves overarching policy objectives in a sustainable way.

In addition, the NiSource Natural Gas Transmission and Storage businesses could play a role in the deployment of carbon sequestration infrastructure. NiSource operates one of the nation's largest delivery systems for natural gas. Carbon Capture and Sequestration (CCS) is a technology currently under development to capture and store carbon dioxide (CO₂) emissions from fossil-fuel fired electric generating stations and other large point sources of CO₂. The captured CO₂ would be transported through pipelines to underground sequestration fields. As one of the largest operators of underground storage for natural gas in the U.S., the potential exists for NiSource to play a role in transporting and storing CO₂ emissions.

Also, the demand for natural gas may increase if GHG regulations are enacted. NiSource's Midwest and Mid-Atlantic pipeline and storage network overlays large electric system regions currently supplied by coal fired power plants. This potentially presents multiple opportunities to serve new natural gas-fired generation. NiSource is investing in natural gas storage and pipeline infrastructure to help meet increased customer demand and mitigate variability in natural gas costs to its customers.

The timing and extent of any climate change that prompts new requirements to reduce GHGs could represent to some degree commercial opportunities for NiSource. However, given the preliminary state of climate change regulation, quantification of specific financial effects is not possible at this time.

At present, NiSource continues to invest in energy efficiency programs and expansion of natural gas transportation in particular out of the Marcellus shale production region. The company is also developing voluntary market protocols to certify reductions. An opportunity may arise to offset future obligations or sell greenhouse gas credits as NiSource pursues GHG reduction projects.

Strategy

NiSource has developed an intensity target for emissions reductions of 7% from 2001. The emissions in 2001 were 23,801,000 metric tonnes of CO₂ equivalent. This target is to be met by the year 2012. In order to meet this target, NiSource has embarked on a Carbon Credit project to identify the fugitive methane loss from its 11 natural gas compressor stations, repair and/or replace equipment to reduce that fugitive gas loss quantity and to develop marketable carbon credits in a voluntary market. The initial project underway in 2009 involves the NiSource subsidiary Columbia Gulf Transmission LLC. The project should reach finalization later in 2010. NiSource plans similar approach to Columbia Gas Transmission's 67 Compressor Stations in 2010 and 2011. Through this project, the company has saved 373,000 million standard cubic feet (mscf) of energy and prevented the release of 179,600 metric tonnes of CO₂ equivalent. NiSource has been engaged with US EPA, EPA consultants and industry trade groups in the development of this project.

Since environmental regulatory proposals are in the formation stages, NiSource has been very active with various trade associations and advocacy groups, including INGAA, AGA, and Edison Electric Institute. NiSource has worked with these groups, as well as individually, to help shape concepts that should be important to any domestic action to reduce GHG. NiSource has also worked with congressional staff on the development of climate related legislation and provided them with information on the potential impact of climate legislation on residential and industrial customers within its service territories.

Greenhouse Gas Emissions Accounting, Energy and Fuel Use, and Trading

Emissions Boundary

NiSource calculates its corporate-wide emissions based on the existing GHG Protocol Corporate Accounting and Reporting Standard developed by the World Resources Institute (“WRI”) and the World Business Council (“WBC”) for Sustainable Development. All companies over which financial control is exercised per consolidated audited financial statements are analyzed and reported according to this protocol.

The NiSource companies report emissions under the WRI control approach including Scope 1, Scope 2 and identified Scope 3 emissions. Therefore, NiSource companies report nearly 100% of the GHG emissions produced by operations and include Scope 3 emissions related to purchased power from third parties to meet customer demand. For the purpose of reporting GHG emissions, control is defined as the ability to introduce and implement operational policy, having operational control, or having majority interest in the entity. All the NiSource businesses and respective facilities are U.S. based.

All six major GHGs were considered for inclusion in the emissions inventory. Given the nature of operations, the following were included in the emissions inventory: carbon dioxide (CO₂), nitrous oxide (N₂O), and methane (CH₄) from natural gas transmission, storage and distribution facilities; CO₂, N₂O, and CH₄ from electric generating plants; and sulfur hexafluoride (SF₆) from electric power distribution operation.

The electric utility operating company is responsible for generating about 70% of the CO₂ equivalent GHG emissions of NiSource. As an integral component of complying with the U.S. EPA requirements, all of the generating units are equipped with continuous emissions monitors (CEMs) that directly measure CO₂ emitted from electric generation. The CEMs are required to be operated in accordance with the US EPA’s Title IV Acid Rain Program, including the strict regulatory requirements governing monitoring activity, found at 40 CFR 75. The Acid Rain Part 75 monitoring program requirements are recognized for generating high quality accurate data for use in the EPA Clean Air Markets division emission trading programs. Accordingly, NiSource’s electric generating GHG emissions utilize the methods required by the EPA Part 75 program.

The total global megawatt-hours (MWh) or purchased electricity from renewable sources is estimated using the U.S. EPA eGRID database. The EPA reports emissions from electric generation facilities throughout the country in the eGrid database. The questionnaire uses data from the most recent eGRID2006 Version 2.1 (April 2007) with year 2004 summary tables. The eGRID database also includes data on the types of generating units, production information and generation resource/fuel mix. The data can be categorized by various measures, one being by geographic area. In order to estimate the renewable percentage of the total MWh of purchased electricity, the percentage of generation from renewable sources for the two main geographic areas in which NiSource operates were combined. NiSource facilities operate in the areas covered by the Reliability First Corporation (RFC) and the Southeast Reliability Corporation (SERC). The renewable component is estimated by using the biomass, hydro, wind and solar components of the energy resource for each region and averaging the percentage to calculate a 3.6% renewable component for global purchased electricity.

The global warming potentials applied in calculating total emissions originate from the IPCC Second Assessment Report (SAR-100 year), and are given in the table below:

Table 1: Global Warming Potentials

Gas	GWP
CO ₂	1
CH ₄	21
NO ₂	296
SF ₆	22200

NiSource utilizes a multitude of emission factors including from USEPA AP-42, continuous on-site monitoring systems, industry standards, mass balance approaches, GHG Calc, IPCC TAR, IES Reporting Methodology, GRI, and manufacturer's recommendations.

Scope 1 Emissions

NiSource's total gross global Scope 1 GHG emissions from January 2009 to December 2009 were 211,708,938 metric tonnes of CO₂ equivalent. These emissions are broken down by business unit as follows:

Table 2: Scope 1 Emissions by BU

Business Division	Emissions (tonnes CO ₂ eq)
Natural Gas Transmission & Storage	5,126,855
Natural Gas Distribution Operations	1,422,589
Electric Generation	15,105,170
Electric Distribution	54,323

By GHG type, the total gross global Scope 2 emissions are given below:

Table 3: Scope 1 Emissions by GHG

GHG Type	Emissions (tonnes)	Emissions (tonnes CO ₂ eq)
CO ₂	16,621,414	16,621,414
CH ₄	236,223	4,960,693
NO ₂	543	168,264
SF ₆	2	49,651

Throughout the year reported, NiSource consumed 44,990,621 MWh worth of fuel: 43,049,474 MWh of bituminous and sub-bituminous coals and 1,941,347 MWh of natural gas.

The uncertainty in this data is between 5% and 10%, mainly due to metering and measurement constraints and reliance on published emissions factors. Emission factor accuracy, data gaps, and other calculation assumptions are the primary sources of uncertainty in NiSource emission data gathering activities.

NiSource considers a vast majority of its GHG emissions inventory to be of high accuracy. The electric generating and the natural gas transmission segment combustion emissions account for between 80 and 85% of the entire inventory and would qualify as highly accurate emissions estimates. NiSource electric generation units use redundant Continuous Emissions Monitoring Systems (CEMS) as well as the 40 CFR, Part 75 data substitution rules. The Part 75 substitute data values become increasingly conservative, to ensure that emissions are not under-reported.

For the remainder of NiSource emissions, we have taken a conservative approach in selecting emission factors; therefore, our corresponding emissions are most likely higher than actual.

The coal and natural gas usage is tracked for the electricity generation facilities. Fuel usage records are also kept for most of the natural gas transmission and storage sector compressor drivers, heaters and dehydrator boilers, and for some heaters and boilers used in the natural gas distribution facilities. The NiSource inventory also includes combustion emissions based on hp-hrs or hours operated and heat rate for some of the combustion units in the transmission and distribution sectors, therefore a complete accounting of fuel usage for the transmission and distribution sector is not practical.

Scope 2 Emissions

NiSource's total gross global Scope 2 GHG emissions from January 2009 to December 2009 were 184,604 metric tonnes of CO₂ equivalent. These emissions are broken into the NiSource's business units as follows:

Table 4: Scope 2 Emissions by BU

Business Division	Emissions (tonnes CO ₂ eq)
Natural Gas Transmission & Storage	127,055
Natural Gas Distribution Operations	46,280
Electric Generation	0
Electric Distribution	11,270

NiSource operates hundreds of facilities and office buildings that purchase electricity for lighting, heat, or use electricity to drive electric motors to compress natural gas. The indirect electric usage is based on building area emission factors that are specific to the region of the USA where the facilities are located. The facility list is developed from multiple internal sources to ensure that all facilities are included. Electricity usage from electric motor driven natural gas compressors is determined by the hp-hrs used by each compressor and is compiled from compressor run-time logs. The level of uncertainty in total gross global Scope 2 emissions is between 5% and 10% due to reliance on published emissions factors.

Scope 3 Emissions

The only source of Scope 3 emissions within NiSource is purchased electricity, which contributes 1,310,733 metric tonnes of CO₂ equivalent.

Further Information

Emissions related to employee business travel other than from company-owned vehicles and aircraft have been estimated and are considered to be minimal. Company-owned vehicles and aircraft are included in Scope 1 emission estimates. Emissions related to external distribution/logistics are not tracked.

NiSource accounts for GHG emissions in the intensity metric determination that is associated with purchased power from third parties to meet customer demand. In 2009 GHG emissions associated from third-party purchases of electricity for customer use were 1,310,732.86 metric tonnes of CO₂ equivalent. Emissions by company Supply Chain are not tracked.

Northern Indiana Public Service Company (NIPSCO) supplies electricity to customers in Northern Indiana. NIPSCO operates electrical generation facilities, but at times purchases power from the grid (i.e. other suppliers) to meet system electrical demand. NIPSCO does not have operational control of these facilities nor does it have an ownership in these third party suppliers. NIPSCO includes purchased power to allow it

to calculate a total emissions intensity for the electricity it provides to its customers. NIPSCO quantifies the amounts purchased from these suppliers during the year and uses this information to estimate Scope 3 emissions. The total power purchased in MWh is converted to estimated emissions using a regional emissions intensity factor for the conversion. This is accomplished by use of the US EPA eGRID database. The EPA reports emissions from electricity generating facilities throughout the country in the eGRID database. The most recent version eGRID2006 Version 2.1 (April 2007) is used for this purpose. The data provided by EPA is categorized by various measures, one being by geographic area of generation, according to North American Electric Reliability Corporation (NERC) regions. Using the NERC sub-regions from eGRID, the closest sub-regions are Reliability First Corporation (RFC) Michigan, Southeastern Electric Reliability Council (SERC) Midwest and RFC West. The average of the CO₂ emission factors for these three regions is 1680.3 lbs of CO₂ per MWh purchased. This method provides a likely scenario of power being dispatched from the closest possible regions to supply NIPSCO, and this emission factor is used with purchase power totals to measure Scope 3 CO₂ emissions.

Demand Side Management / Energy Efficiency

Columbia Gas of Ohio

NiSource has taken advantage of several opportunities which allow third parties to avoid emissions. For Columbia Gas of Ohio's WarmChoice (Low Income Weatherization Program), the cumulative CO₂ reduction estimate is 1,522,981 tonnes CO₂. This number is the stream of reductions for WarmChoice from 1988-2031 - an aggregated lifetime savings over the 20-year life of the measures. For 2009-2011 WarmChoice and Demand Side Management (DSM) (new in 2009) projected cumulative CO₂ reduction potential: 457,808 tonnes CO₂. However, savings are estimated and may not reach this level; DSM program services are being slowly adopted by customers due to the economic downturn. WarmChoice CO₂ reductions are based on customers served per year over a 20-year life of measures. For WarmChoice, 100 cubic feet (ccf) savings come from a variety of external and internal impact evaluation reports over the years. WarmChoice, which is now in its 22nd year, has had many impact evaluations performed to estimate savings from billing analysis using methods with non-participant control groups to adjust gross to net savings. The program typically serves customers with usage averaging 1200 ccf per year, and performs attic and wall insulation, high efficiency furnaces, air leakage sealing, and some other energy conservation measures. For WarmChoice, it is unknown how many houses are now out of service and no longer saving, and one "persistence of savings" study that suggests that savings continue to last for at least the 10-year period for houses weatherized in one particular year. It is unknown the level of degradation in gas savings that may have occurred with the energy conservation measures in the 10 years after that persistence study, and the longer-term savings for the other impact evaluations are also unknown. DSM program-related CO₂ reductions, which do not include those from WarmChoice, are all projections since the program has just recently been implemented in 2009.

NIPSCO

NIPSCO's Natural Gas DSM Program estimates an annual net therm savings for 2008 of 2,131,280 therms. For each year that the measures are implemented, the savings will persist cumulatively for approximately ten years. For the Home Energy Solutions (Targeted Income) Program, the savings are estimated. In order to verify the actual savings, the Indiana Community Action Association (INCAA) reviews customer data for the 12 months prior to and the 12 months following the implementation of the measures - because the programs have just recently been implemented, an estimated savings of 430 therms per home is being used. NIPSCO is currently in the process of collecting and supplying the data to INCAA for their review and analysis. NIPSCO's programs include residential prescriptive incentives, low income weatherization, new construction incentives, home assessments, home retrofits, elementary education, multi-family direct install, staff efficiency culture training, and umbrella marketing (customer/trade ally outreach and education).

Bay State Gas

Bay State Gas's DSM Program offers energy efficiency programs to residential, low income, commercial, and industrial customers. Their program has shown an annual net therm savings over the past five years as follows:

Table 5: Bay State Gas Therm Savings

Year	Date Range	Annual Savings (therms)
1	May 2004-April 2005	1,344,582
2	May 2005-April 2006	1,858,752
3	May 2006-April 2007	1,679,077
4	May 2007-April 2008	2,072,883
5	May 2008-April 2009	1,505,414

The design, implementation, and cost recovery of the Bay State Gas's energy efficiency programs are subject to the jurisdiction of the Massachusetts Department of Public Utilities under the provisions of the Green Communities Act. Bay State operates comprehensive energy efficiency programs and market transformation initiatives targeting the residential, low-income and C&I customer sectors. Bay State plans to spend \$56 million over the next three years on energy efficiency programs, yielding a savings exceeding 9.8 million therms, more than double what is currently in place. The new programs will install energy improvements that will achieve savings for many years, enabling Bay State customers to realize savings equivalent of heating approximately 178,797 homes for one year.

Go Zero® Carbon Sequestration Program

Beginning In March, 2008 through 2009, EnergyUSA, a NiSource subsidiary, joined the Conservation Fund at the University of Notre Dame in an initiative that pools customer donations to help address climate change, restore sensitive wildlife habitat and enhance parks and wildlife refuges across the United States. EnergyUSA's 4,500+ commercial and industrial customers could choose to offset the carbon dioxide emissions that resulted from their natural gas use by adding a contribution of \$0.25 per dekatherm to their monthly bill. The company pooled customers' donations and passed 100% of those donations on to The Conservation Fund, a land conservation non-profit group. Contributions supported The Conservation Fund's Go Zero® Carbon Sequestration program – an effort to plant native trees, restore once-forested habitat for wildlife and enhance America's public recreation areas. For every \$4.30 received from EnergyUSA as part of this effort, the Fund plants trees intended to offset one short ton of carbon dioxide emissions equivalent from the atmosphere.

Emissions Intensity Measurements

Financial intensity measurements for gross combined Scope 1 and Scope 2 emissions are given in Table 6:

Table 6: Financial Intensity Metrics

Emissions (million tonnes CO ₂ eq)	Financial Intensity Metric	Details
0.09	Revenue	Electric Generation
0.00	Revenue	Gas Distribution
0.01	Revenue	Gas Transmission
0.02	Revenue	NiSource

Activity-related intensity measurements for gross combined Scope 1 and Scope 2 emissions are detailed below:

Table 7: Activity Related Metrics

Emissions (million tonnes CO ₂ eq)	Activity Related Metric
1.08	MWh electric generation
26.86	Mile-gas distribution
237.44	Mile-gas transmission
584.17	MMBHP-hr gas transmission

NiSource uses a weighted average of emissions intensity to measure progress. The inventory is broken down into subcomponent metrics as they relate to our four main emission types:

- 1) Electric power generation (tonnes CO₂ eq/megawatt hour),
- 2) Natural gas combustion for natural gas transmission (tonnes CO₂ eq/brake horsepower hour),
- 3) Vented and fugitive methane from natural gas transmission (tonnes CO₂ eq/miles of pipe), and
- 4) Vented and fugitive methane from distribution activities (tonnes CO₂ eq/miles of pipe).

To get to an overall NiSource intensity (percent change from 2001 base year), these individual intensities are weighted based on the percentage of CO₂ equivalent to the NiSource total inventory, summed and referenced to the base year index. By using the index, current year intensities for the entire corporation are compared to 2001 base year intensities.

The following conversion factors were used for the given metrics to determine the amount of emissions created for each activity:

- Gas Transmission: Combustion = 584.7 tonnes CO₂ eq/million bhp-hr
- Gas Transmission: Fugitive and vented = 237.44 tonnes CO₂ eq/mile
- Gas Distribution: 26.86 tonnes CO₂ eq/mile
- Electric Generation: 1.037 tonnes CO₂ eq/MWh

Further Information

The Scope 1 and Scope 2 combined emissions for 2009 did not vary significantly compared to the previous year. We purchased approximately one million fewer MWh in 2009 compared to 2008. Our purchased

power is a combination of coal-fired, nuclear, and various other sources of energy. In 2009 we established a new contract with a wind energy supplier which affects our overall intensity rate. Sugar Creek (combined cycle generating station) was purchased in mid-2008; therefore 2009 was the first year of reporting a full year for Sugar Creek, and the first year without Whiting Clean Energy (combined cycle gas cogeneration facility) numbers. Therefore, overall there were not significant changes.

The most significant variations in the existing NiSource GHG emissions profile since the 2001 base year are related to electric generation changes:

- The mothballing of the D. H. Mitchell Generation Station, a 525 MW coal-fired electric generating facility;
- The development and increased utilization of natural gas fired combined cycle electric generation resources including Whiting Clean Energy and Sugar Creek Generating. Whiting Clean Energy and Sugar Creek were developed as highly efficient, large natural gas fired combined cycle facilities. In the case of Whiting Clean Energy, the facility also includes waste heat steam generation which further increased efficiency. These facilities can produce power at approximately half the carbon intensity of a traditional coal-fired power plant. In 2008 NiSource divested Whiting Clean Energy and NIPSCO purchased Sugar Creek; and
- An increase in purchased power with lower carbon intensity.

In 2003, NiSource divested approximately 1000 MW of lower carbon intensity generation when it sold its Primary Energy subsidiary. These operations had significantly improved the overall GHG emission rate for NiSource. However, consistent with Climate Leaders control inventory approach, these impacts are not included in our year-to-year emissions profile since they were divested (even though they continue to operate and provide low carbon intensity power in the NIPSCO service territory).

The GHG emissions inventory process is detailed in the NiSource Inventory Management Plan (IMP), and the revised NiSource GHG Inventory Methodology Report. Significant enhancements were made in 2007 to provide the opportunity for a more detailed analysis of emissions and emission changes over time. Changes as a result of improved methodologies/techniques in collaboration with the Interstate Natural Gas Association of America (INGAA), the American Gas Association (AGA) and other trade groups, especially in the Natural Gas Transmission & Storage (NGT&S) area, or modifications to core assumptions, will add to the IMP on an annual review basis.

NiSource has reported GHG summaries to the DOE EIA 1605b program, the EPA Climate Leaders program, and to several investor-related requests. The 1605b report is submitted with accumulations of all GHG emissions related to NiSource activities. In addition, an enhancement process was undertaken early in 2007 with regard to the Natural Gas Star reporting procedures. Reporting guidelines for the program were examined and compared with field data generated in 2006 and previous years. The purpose of this review was to more accurately reflect true GHG emission reductions that can be authenticated and verified when used in cross reporting in other GHG programs. The Natural Gas Star reports for 2005 and beyond will be adapted to reflect the verifiable reductions that NiSource can utilize in future reporting protocols.

In addition, specific reduction projects were analyzed and field testing was conducted to begin the evaluation process to determine the potential for additional GHG reductions. Understanding NiSource's GHG emissions and reduction opportunities helps NiSource comment on developing policies and activities.

Emissions Verification

Between 60 and 80% of reported Scope 1 emissions have been verified. Scope 2 and Scope 3 emissions have not been verified. An IMP has been prepared to serve as the guiding principle to assure a complete emissions inventory to be maintained over time. The IMP was prepared with our third party implementation partner CH2M Hill per Climate Leaders' guidance, the WBCSD/WRI GHG Protocol, and is consistent with general energy sector practices. As part of the Partnership program, the data was submitted to the EPA in 2006 for a desktop review of the inventories to assure accuracy, completeness and technical soundness.

This is in addition to our internal QA/QC and peer review process. Finally, NiSource has hired a third-party gas sector GHG expert to further refine and review our inventory. This process resulted in a higher level of detail and accuracy for the inventory and was completed in 2007.

Typically 70 to 80% of the NiSource GHG emissions inventory consists of emissions generated from electric generating units regulated under the Acid Rain or NO_x Budget trading programs. These units incorporate monitoring systems required for these programs that measure the emissions of carbon dioxide and must meet the requirements of U.S. Environmental Protection Agency Code of Federal Regulations (CFR) Title 40 Part 75. 40 CFR Part 75 specifies the types of continuous monitoring systems used for each parameter (SO₂, NO_x, CO₂, etc.) and sets forth the operation, maintenance and quality assurance/quality control (QA/QC) requirements for each system, to ensure that the data collected by the monitoring systems continues to be accurate.

Before any data from Part 75 monitoring systems can be reported as quality-assured, the systems must pass a series of certification tests, to demonstrate that they are capable of providing accurate emissions data.

Test methods, developed by EPA and other reputable standards organizations such as the American Society of Mechanical Engineers (ASME), are used to certify Part 75 monitoring systems. In addition, high-quality calibration gases are used in many of the certification tests. In the case where fuel flow meters are used, they are certified using test methods or, in some cases, design specifications, which have been published by consensus standards organizations such as ASME, AGA, and the American Petroleum Institute (API).

Climate Change Communications

Consistent with the Security and Exchange Commission requirements, NiSource has an internal system to review and report on climate change risks and opportunities. One example is the quarterly and annual reports. Since 1995, NiSource has submitted annual reports to the Department of Energy on all climate related activity at NiSource companies. NiSource voluntarily publishes a sustainability report on its external website which describes the company's performance, its progress in reducing GHG emissions, and provides yearly metric results for CO₂ reductions. This report attempts to summarize all enterprise-wide initiatives that embody the concepts of corporate social responsibility. This report is available from the NiSource website.

Oil & Gas

Table 8 shows emissions for years 2006 through 2009 by value chain stage:

Table 8: Oil & Gas Emissions

Chain Stage	Emissions (tonnes CO ₂ eq)			
	Year			
	2006	2007	2008	2009
Extraction & production	0	0	0	0
Refining & processing	0	0	0	0
Transportation (inc. fugitive losses)	3,552,766	3,587,641	3,553,433	3,472,629
Emissions in use (combustion)	1,463,191	1,695,994	1,661,607	1,643,419

Following are GHG emissions from flaring of gas:

Table 9: Emissions from Gas Flares

Year Ending	Volume of gas (m ³)
2004	6,265,004
2005	5,786,577
2006	6,358,945
2007	6,023,611
2008	6,366,050
2009	4,915,593

Electric Utilities

The remaining tables outline the emissions produced and projections for all energy sources utilized by NiSource. Table 10 provides the total for all energy sources:

Table 10: Total Emissions from Electric Utilities

Year Ending	Nameplate capacity (MW)	Production (GWh)	Emissions (tonnes CO ₂ eq)	Emission intensity (tonnes CO ₂ eq/MWh)
2006	4,457	15,531	16,435,531	1.062
2007	4,457	16,044	16,922,627	1.058
2008	5,026	15,874	16,689,564	1.072
2009	4,501	13,967	15,098,974	1.105
2010	4,501	14,165	15,630,864	1.107
2011	4,501	13,941	15,466,526	1.114
2012	4,501	13,987	15,514,431	1.113
2013	4,501	14,234	15,748,605	1.11
2014	4,501	15,095	16,556,824	1.101

Hard Coal

Table 11: Emissions from Coal Fuel

Year Ending	Nameplate capacity (MW)	Production (GWh)	Emissions (tonnes CO ₂ eq)	Emission intensity (tonnes CO ₂ eq/MWh)
2006	3,609	14,659	16,154,423	1.102
2007	3,609	14,775	16,484,069	1.115
2008	3,609	15,031	16,405,617	1.11
2009	3,609	13,182	14,797,940	1.123
2010	3,609	13,746	15,473,368	1.126
2011	3,609	13,696	15,381,996	1.123
2012	3,609	13,669	15,399,995	1.127
2013	3,609	13,918	15,634,452	1.123
2014	3,609	14,709	16,412,737	1.116

Open Cycle Gas Turbine

Table 12: Emissions for OCGT Technologies

Year Ending	Nameplate capacity (MW)	Production (GWh)	Emissions (tonnes CO ₂ eq)	Emission intensity (tonnes CO ₂ eq/MWh)
2006	313	15	5,565	0.383
2007	313	29	23,572	0.790
2008	313	18	14,679	0.803
2009	313	4	4,351	1.087
2010	313	4	3,591	0.790
2011	313	3	2,600	0.785
2012	313	3	2,747	0.786
2013	313	3	2,662	0.786
2014	313	4	2,903	0.787

Closed Cycle Gas Turbine

Table 13: Emissions for CCGT Technologies

Year Ending	Nameplate capacity (MW)	Production (GWh)	Emissions (tonnes CO ₂ eq)	Emission intensity (tonnes CO ₂ eq/MWh)
2008	569	184	71,625	0.389
2009	569	725	296,683	0.409
2010	569	364	153,905	0.422
2011	569	191	81,930	0.429
2012	569	264	111,689	0.423
2013	569	262	111,491	0.426
2014	569	331	141,184	0.426

Combined Heat & Power

Table 14: Emissions from CHP

Year Ending	Nameplate capacity (MW)	Production (GWh)	Emissions (tonnes CO ₂ eq)	Emission intensity (tonnes CO ₂ eq/MWh)
2006	525	794	275,543	0.347
2007	525	1,188	414,986	0.349
2008	525	590	197,643	0.335

Hydropower

Table 15: Hydropower Capacity

Year Ending	Nameplate capacity (MW)	Production (GWh)
2006	10	63
2007	10	52
2008	10	51
2009	10	56
2010	10	51
2011	10	51
2012	10	51
2013	10	51
2014	10	51