Module: Introduction

Page: Introduction

CC0.1

Introduction
Please give a general description and introduction to your organization.

NiSource, Inc. is an energy holding company under the Public Utility Holding Company Act of 2005 whose subsidiaries are fully regulated natural gas and electric utility companies serving approximately 3.9 million customers in seven states. NiSource is the successor to an Indiana corporation organized in 1987 under the name of NIPSCO Industries, Inc., which changed its name to NiSource on April 14, 1999.

NiSource is one of the nation's largest natural gas distribution companies, as measured by number of customers. NiSource's principal subsidiaries include NiSource Gas Distribution Group, Inc., a natural gas distribution holding company, and Northern Indiana Public Service Company (NIPSCO), a gas and electric company. NiSource derives substantially all of its revenues and earnings from the operating results of these rate-regulated businesses.

On July 1, 2015, NiSource completed the Separation of Columbia Pipeline Group (CPG) from NiSource. CPG's operations consisted of all of NiSource's Columbia Pipeline Group Operations segment prior to the Separation. Following the Separation, NiSource retained no ownership interest in CPG.

Gas Distribution Operations
NiSource's natural gas distribution operations serve approximately 3.4 million customers in seven states and operate approximately 59,000 miles of pipeline. Through its wholly-owned subsidiary NiSource Gas Distribution Group, Inc., NiSource owns six distribution subsidiaries that provide natural gas to approximately 2.6 million residential, commercial and industrial customers in Ohio, Pennsylvania, Virginia, Kentucky, Maryland and Massachusetts. Additionally, NiSource also distributes natural gas to approximately 820,000 customers in northern Indiana through its wholly-owned subsidiary NIPSCO.

Electric Operations
NiSource generates, transmits and distributes electricity through its subsidiary NIPSCO to approximately 466,000 customers in 20 counties in the northern part of Indiana and engages in wholesale and transmission transactions. NIPSCO owns and operates three coal-fired electric generating stations. The three operating facilities have a net capability of 2,540 Megawatts (MW). NIPSCO also owns and operates Sugar Creek, a combined-cycle gas turbine (CCGT) plant with net capability of 535 MW, three gas-fired generating units located at NIPSCO's coal-fired electric generating stations with a net capability of 196 MW and two hydroelectric generating plants with a net capability of 10 MW. These facilities provide for a total system operating net capability of 3,281 MW. NIPSCO's transmission system, with voltages from 69,000 to 345,000 volts, consists of 2,805 circuit miles. NIPSCO is interconnected with five neighboring electric utilities. During the year ended December 31, 2016, NIPSCO generated 66.4% and purchased 33.6% of its

electric requirements.

NIPSCO participates in the MISO transmission service and wholesale energy market. The MISO is a nonprofit organization created in compliance with FERC regulations to improve the flow of electricity in the regional marketplace and to enhance electric reliability. Additionally, the MISO is responsible for managing energy markets, transmission constraints and the day-ahead, real-time, FTR and ancillary markets. NIPSCO transferred functional control of its electric transmission assets to the MISO and transmission service for NIPSCO occurs under the MISO Open Access Transmission Tariff.

CC0.2

Reporting Year

Please state the start and end date of the year for which you are reporting data.
The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.
We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.
Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed
Fri 01 Jan 2016 - Sat 31 Dec 2016

CC0.3

Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country
United States of America

CC0.4

Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

USD($)

CC0.6

Modules

As part of the request for information on behalf of investors, companies in the electric utility sector, companies in the automobile and auto component manufacturing sector, companies in the oil and gas sector, companies in the information and communications technology sector (ICT) and companies in the food, beverage and tobacco sector (FBT) should complete supplementary questions in addition to the core questionnaire.
If you are in these sector groupings, the corresponding sector modules will not appear among the options of question CC0.6 but will automatically appear in the ORS navigation bar when you save this page. If you want to query your classification, please email respond@cdp.net.
If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below in CC0.6.

Oil & Gas

Further Information

Module: Management

Page: CC1. Governance

CC1.1

Where is the highest level of direct responsibility for climate change within your organization?

Board or individual/sub-set of the Board or other committee appointed by the Board

CC1.1a

Please identify the position of the individual or name of the committee with this responsibility

Environmental, Safety and Sustainability (ESS) Committee of the NiSource Board of Directors

For over a decade, NiSource's commitment to greenhouse gas (GHG) emission reporting and reduction has been guided by the Environmental, Safety and Sustainability (ESS) Committee of the NiSource Board of Directors and implemented across the NiSource companies. The ESS Committee oversees programs, performance and risks relative to environmental, safety and sustainability matters, including climate-related issues. The ESS Committee meets a minimum of four times annually. The Environmental Safety and Sustainability charter for the Committee can be found on the NiSource website at https://www.nisource.com/investors/governance

CC1.2

Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

CC1.2a

Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
All employees	Monetary reward	Emissions reduction project Other: Modernization	NiSource's utilities continue to move forward on core infrastructure and environmental investment programs supported by complementary regulatory and customer initiatives across all seven states. NiSource invested approximately $1.5 billion across its gas and electric utilities in 2016. NiSource has now executed against approximately $3.5 billion of an estimated $30 billion in total projected long-term regulated utility infrastructure

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
		Investments	investments. NiSource expects to invest approximately $1.6-$1.7 billion in capital during 2017 to continue to modernize and improve its system across all seven states. NiSource's goal is to develop strategies that benefit all stakeholders as it addresses changing customer conservation patterns, develops more contemporary pricing structures, and embarks on long-term investment programs. These strategies will help improve reliability and safety, enhance customer services and reduce emissions while generating sustainable returns. NiSource's modernization plan includes replacement of aged infrastructure that will result in reduced greenhouse gas emissions and increased reliability (strengthened energy-delivery system). The modernization plan has both budgetary and operational goals (targets). The success of NiSource as a company is based, in part, on our ability to execute our modernization and growth-focused business plan. NiSource employees will benefit from results in line with company-set earnings targets, which rely upon successful execution of the plan. Monetary awards are not specifically tied to greenhouse gas emission reductions, but company modernization programs result in direct Scope 1 emission reductions.

Further Information

Page: CC2. Strategy

CC2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

CC2.1a

Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Annually	Board or individual/sub-set of the Board or committee appointed by the Board	NiSource considers all geographical areas within company service territories and the broader United States. Company service territories are located in the following U.S. states: Indiana, Ohio, Kentucky, Pennsylvania, Virginia, Maryland, and Massachusetts.	> 6 years	NiSource assesses the risks and opportunities with regard to climate change through company-wide risk management processes, led by NiSource's Risk Management Committee, made up of members throughout the Corporation and operating companies. The types of risks and opportunities considered by the Risk Management Committee include material business risks of the Corporation, including regulatory risk and the potential financial impacts to NiSource's business operations. The Board Audit Committee reviews and assesses the adequacy of the Company's Risk Management Committee Charter annually, amending it as appropriate. In addition, the Board Finance Committee, the Board Compensation Committee, the Board Nominating and Governance Committee and the Board Environmental, Safety and Sustainability ("ESS") Committee are each charged with overseeing the risks associated with their respective areas of responsibility.

CC2.1b

Please describe how your risk and opportunity identification processes are applied at both company and asset level

A disruption or failure of natural gas distribution systems, or within electric generation, transmission or distribution systems, in the event of a major hurricane, tornado, terrorist attack or other catastrophic event could cause delays in completing sales, providing services, or performing other critical functions. There is also a concern that climate change may exacerbate the risks to physical infrastructure. Such risks include heat stresses to power lines, storms that damage infrastructure, lake and sea level changes that damage the manner in which services are currently provided, droughts or other stresses on water used to supply services, and other extreme weather conditions. Climate change and the costs that may be associated with its impacts have the potential to affect NiSource's business in many ways, including increasing the cost NiSource incurs in providing its products and services, impacting the demand for and consumption of its products and services (due to change in both costs and weather patterns), and affecting the economic health of the regions in which NiSource operates.

The Board takes an active role in monitoring and assessing the Company's risks--strategic, compliance, operational and financial risks. The Board administers its oversight function through utilization of its various committees, as well as through a Risk Management Committee, consisting of members of our senior management, which is responsible for the risk management process. Senior management provides reports on our risks to the Board, the Audit Committee and the Board committees that oversee the applicable risks. Additionally, the Audit Committee discusses with management

and the independent auditor the effect of regulatory and accounting initiatives on the Company’s financial statements and is responsible for review and evaluation of the Company’s major risk exposures and the steps management has taken to monitor and control such exposures.

CC2.1c

How do you prioritize the risks and opportunities identified?

NiSource's largest sources of Scope 1 greenhouse gas emissions are from electric generation assets in Indiana. An Integrated Resource Plan (IRP), presented to the Indiana Utility Regulatory Commission (IURC) every two years, charts the company's strategy for the next 20 years for meeting the future energy needs of customers with cost-effective, reliable and sustainable supplies of electricity. The IRP process includes input from NIPSCO, third-party experts, customers and other external stakeholders. NIPSCO studies its current generating facilities, purchased power agreements, demand-side management programs, and its transmission and distribution system to see if assets will be available for customer electricity needs. Past performance, usage, cost and retirement are taken into account. NIPSCO evaluates the balance between customers' needs and existing resources to determine if extra generation is required. NIPSCO conducts a thorough evaluation of options to meeting customers' future energy needs. NIPSCO's integration analysis assimilates the demand forecast with existing owned generation, energy efficiency and self-build, supply-side alternatives. A slate of ranked options is derived seeking to provide service at the lowest reasonable cost to customers while addressing NIPSCO's objectives for the most efficient, economical, flexible and reliable resource options. To evaluate risk, NIPSCO develops a base case portfolio and performs scenario and sensitivity analyses. The base case portfolio reflects NIPSCO's current view of the future. Scenario and sensitivity analyses are performed to see how the portfolio is affected, influenced or impacted by potential changes in the future, including carbon costs.

CC2.1d

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment

CC2.2

Is climate change integrated into your business strategy?

Yes

CC2.2a

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

NiSource invests in initiatives to reduce our environmental impacts, while at the same time encouraging our customers to reduce their energy consumption through energy efficiency and education programs. Some of our investments include: providing energy-saving incentives for customers; procuring renewable energy resources; reducing methane emissions from company natural gas systems; improving air quality in our areas of operations; managing water and resources; and serving as responsible stewards of natural and environmental resources. We employ many dedicated environmental specialists with a focus on improving the environment. Our systems and programs are integrated to enable this team to track, monitor, and report progress to our stakeholders, enhancing and assuring compliance.

NiSource is closely managing challenges associated with an aging infrastructure, including incorporating greenhouse gas and other environmental regulations into our planning exercises. The expanding domestic supply of natural gas, combined with its low cost and positive environmental impact will continue to influence NiSource decision making. With a large portion of NiSource's existing operations connected to the natural gas industry, an investment plan that includes approximately $30 billion in infrastructure modernization programs that help reduce emissions, multiple energy efficiency programs for our customers, and an industry-leading regulated platform, NiSource continues to plan for a carbon-constrained future due to regulatory changes.

CC2.2b

Please explain why climate change is not integrated into your business strategy

CC2.2c

Does your company use an internal price on carbon?

Yes

CC2.2d

Please provide details and examples of how your company uses an internal price on carbon

NIPSCO is estimating that a CO2 cost will be incurred no earlier than 2023, beginning at approximately $6.75/ton (source: NIPSCO's 2016 Integrated Resource Plan). NIPSCO updates its Integrated Resource Plan (IRP) every two years, and completed its most recent IRP in 2016. Updated carbon cost estimates and timeframes are included in the 2016 IRP. NIPSCO's 2016 IRP projects a cost of carbon beginning in 2023 and ending in 2035 (the conclusion of the time frame considered in the model).The estimated CO2 costs increase over time, with an initial cost of approximately $6.75/ton and reaching $35.70/ton in 2035.

These carbon costs are incorporated into Integrated Resource Planning (IRP) models and allow the company to assess the impact of carbon costs on future electric generation portfolios. Future legislative and regulatory programs could significantly restrict GHG emissions or impose a cost or tax on GHG emissions. Recently, regulations have been developed to implement federal, state and regional GHG programs and to create renewable energy standards. In addition, the EPA has promulgated a New Source Performance Standard for new or modified power plants, and for existing power plants. On October 23, 2015, the EPA issued a final rule to regulate CO2 emissions from existing fossil-fuel units under section 111(d) of the Clean Air Act (Clean Power Plan). On February 9, 2016, the U.S. Supreme Court stayed implementation of the Clean Power Plan until litigation is decided on its merits. If a federal or state comprehensive climate change bill were to be enacted into law, the impact on NiSource's financial performance would depend on a number of factors, including the overall level of required GHG reductions, the renewable energy targets, the degree to which offsets may be used for compliance, the amount of recovery allowed from customers, and the extent to which NiSource would be entitled to receive CO2 allowances at no cost. Comprehensive federal or state GHG regulation could result in additional expense or compliance costs that may not be fully recoverable from customers and could materially impact NiSource's financial results.

Existing climate related environmental laws and regulations may be revised and become applicable to NiSource companies. Revised or additional laws and regulations could result in significant additional operating expenses, restrictions on facilities and increased compliance costs. Because NiSource operations involve the use of natural gas and coal fossil fuels, emissions of greenhouse gases are inherent in the business and cannot be entirely eliminated and the ultimate cost impact of any new or amended climate legislation or regulations would depend upon the specific requirements enacted.

CC2.3

Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

Direct engagement with policy makers
Trade associations
Funding research organizations

CC2.3a

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Other: Climate change-related legislation that has the potential to impact NiSource operations	Support	NiSource has a Governmental Affairs office in Washington D.C. NiSource is also a member of numerous industry-related trade associations. NiSource promotes adoption of reasonable policies addressing climate change.	NiSource will support appropriately crafted federal legislation on climate change that (1) Recognizes that greenhouse gas reduction targets must be applicable to all sources of greenhouse gas and be realistically achievable and consistent with projected availability of commercial technology; (2) Protects against undue increases in energy costs to any particular regions or groups of consumers; and (3) 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.
Energy efficiency	Support	NiSource supports reasonable and cost-effective energy efficiency policies that help our customers save energy.	NiSource will support appropriately crafted federal legislation on climate change that (1) Recognizes that greenhouse gas reduction targets must be applicable to all sources of greenhouse gas and be realistically achievable and consistent with projected availability of commercial technology; (2) Protects against undue increases in energy costs to any particular regions or groups of consumers; and (3) 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.
Other: Carbon Dioxide Emissions Regulations	Undecided	NiSource engages with various state policymakers regarding CO2 emission regulations for existing power plants.	NiSource will support appropriately crafted federal legislation on climate change that (1) Recognizes that greenhouse gas reduction targets must be applicable to all sources of greenhouse gas and be realistically achievable and consistent with projected availability of commercial technology; (2) Protects against undue increases in energy costs to any particular regions or groups of consumers; and (3) 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.
Other: Methane Emission Regulations	Undecided	NiSource engages with various state policymakers regarding CH4 emission regulations for natural gas systems.	NiSource will support appropriately crafted federal legislation on climate change that (1) Recognizes that greenhouse gas reduction targets must be applicable to all sources of greenhouse gas and be realistically achievable and consistent with projected availability of commercial technology; (2) Protects against undue increases in energy costs to any particular regions or groups of consumers; and (3) 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.

CC2.3b

Are you on the Board of any trade associations or provide funding beyond membership?

Yes

CC2.3c

Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?
NiSource is a member of the Edison Electric Institute (EEI) and the American Gas Association (AGA)	Consistent	EEI: "Global climate change presents one of the biggest energy and environmental policy challenges this country has ever faced. EEI member companies are committed to addressing the challenge of climate change and have undertaken a wide range of initiatives over the last 30 years to reduce, avoid or sequester GHG emissions. Policies to address climate change should seek to minimize impacts on consumers and avoid harm to U.S. industry and the economy. As of the end of 2016, electric power sector CO2 emissions had declined nearly 25 percent from 2005 levels, driven in part by low natural gas prices, increased deployment of renewable generation and customer demands." AGA: "AGA's natural gas utility members deliver clean, abundant, affordable natural gas produced in Northern America. Because natural gas is highly efficient and emits considerably less carbon dioxide, sulfur, nitrogen or particulates when combusted than other fossil fuels, natural gas results in a smaller environmental impact than other energy sources. Supplies of natural gas are becoming even more environmentally friendly. Biogas is made from non-food sources of organic waste, such as landfill and manure. When cleaned to pipeline quality, biogas becomes Renewable Natural Gas that can be delivered to residential and commercial customers. Natural gas also provides a critical back up for intermittent sources of renewable energy, such as wind and solar. Natural gas utilities continually assess emerging technologies and methodologies to determine if existing procedures can be improved. AGA works with members and leading experts to evaluate how new federal environmental regulatory proposals could impact natural gas local distribution systems and customers. We advocate for government rules and policies that protect the environment while allowing our natural gas utility members to continue to deliver clean, affordable natural gas to customers, safely and reliably." Please see each organization's website for further information regarding their climate change positions: https://www.eei.org/ https://www.aga.org/	NiSource advocates for positions that support, and align with, the NiSource Climate Change Policy.

CC2.3d

Do you publicly disclose a list of all the research organizations that you fund?

Yes

CC2.3e

Please provide details of the other engagement activities that you undertake

CC2.3f

What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

The Environmental Safety and Sustainability Committee oversees programs, performance and risks relative to environmental, safety and sustainability matters, including our Climate Change Policy. In 2009, the ESS Committee adopted the NiSource Climate Change Policy. Our direct and indirect activities that influence policy are guided by NiSource's Board-level Climate Policy. Advocacy is overseen by NiSource's government affairs and Environmental Safety and Sustainability professionals who ensure that the Climate Policy is followed.

CC2.3g

Please explain why you do not engage with policy makers

Further Information

Page: CC3. Targets and Initiatives

CC3.1

Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?

Absolute target

CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment
Abs1	Scope 1	95%	50%	2005	20190231	2025	Yes, but this target has not been approved as science-based by the Science Based Targets initiative	As part of the company's ongoing commitment to reduce GHG emissions, NiSource announced in 2017 forward-looking GHG emission targets. NiSource is targeting a 50% reduction of GHG emissions from electric generation by 2025 from a 2005 baseline, and a 50% reduction in methane emissions from its gas distribution mains and services over the same period. These emission sources account for approximately 95% of NiSource's total direct GHG emissions. NiSource has established greenhouse gas emission targets that demonstrate the company's commitment to reducing greenhouse gas emissions. NiSource recently announced the following emission reduction targets: • 50% reduction in methane emissions from mains and services by 2025 from 2005 levels. • 50% reduction in greenhouse gas emissions (CO2, CH4, N2O) from electric generation by 2025 from 2005 levels. NiSource is on track to meet these targets, as indicated through the company's progress through 2016: • 28% reduction in methane emissions from mains and services through 2016 from 2005 levels. • 41% reduction in greenhouse gas emissions from electric generation through 2016 from 2005 levels. The 2005 emissions baseline of 20,190,231 metric tonnes CO2e represents

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment
								NiSource's Scope 1 emissions from electric generation and gas distribution mains and services.

CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment

CC3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment

CC3.1d

Please provide details of your renewable energy consumption and/or production target

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment

CC3.1e

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Abs1	55%	69%	NiSource is on track to meet these targets, as indicated through the company's progress through 2016: • 28% reduction in methane emissions from mains and services through 2016 from 2005 levels. • 41% reduction in greenhouse gas emissions from electric generation through 2016 from 2005 levels.

CC3.1f

Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

CC3.2

Do you classify any of your existing goods and/or services as low carbon products or do they enable a third party to avoid GHG emissions?

Yes

CC3.2a

Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
Product	By signing up for NIPSCO's Green Power Program, customers can choose to have a portion or all of their monthly electric usage to be attributable to power generated by renewable energy sources, such as wind power. When customers sign up, NIPSCO buys renewable energy certificates (RECs) on their behalf. It currently costs less than $2 more per month for the average home (based on a monthly electric use of 1,000 kWh) to receive 100% of its electricity from renewable sources. This added cost is passed along to participating customers without any additional markup from NIPSCO. NIPSCO electric customers may designate 25, 50 or 100 percent of their monthly electric usage to be attributable to power generated by renewable energy sources. Commercial and industrial customers have the added flexibility to designate 5 or 10 percent of their monthly usage. Customers who enroll in the Green Power Program will pay a monthly premium in addition to NIPSCO's standard, regulated electric rate. The added costs are passed through directly to customers, with no mark up or financial return for NIPSCO. Non-	Low carbon product and avoided emissions				

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment
	participating customers are not responsible for additional charges associated with making this program available.					

CC3.3

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

Yes

CC3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*		
Implemented*	3	232541
Not to be implemented		

CC3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Com
Other	At NIPSCO, we are offering opportunities for customers to generate their own electricity from renewable resources to offset their bills. To support more sustainable renewable electricity generation, NIPSCO's Net Metering program allows customers to generate up to 1 MW of their own renewable energy from solar, wind or hydroelectric sources. The power generated would be reimbursed through a credit on their monthly electric bill. In addition, NIPSCO has developed a Feed-in Tariff program which allows customers to connect up to 200 kW megawatts of solar and 1 MW of biomass generation to our NIPSCO power grid and sell the generated power back to the company. Between the two programs, over 358,000 megawatt hours have been generated by renewable sources since 2011 -- over 107,000 megawatt hours in 2016 alone. These programs are available to encourage customers to invest in renewable energy solutions. While many utilities purchase renewable energy from their customers, most do so with the variable rates and short-term contracts which can create financing difficulties. Very few utilities offer long-term, fixed-rate purchase contracts. NIPSCO believes that its proposed long-term, fixed rate contracts will better encourage renewable energy investments.	89534	Scope 1	Voluntary					
Other	All of the NiSource companies offer energy efficiency	88578	Scope	Voluntary					

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Com
	programs and services. These are used by customers to reduce their energy usage and increase the efficiency of their homes or businesses. In 2016 NIPSCO provided electric efficiency programs which include residential lighting, home energy audits, low income weatherization, commercial and industrial incentives, energy efficiency audits for schools, residential new construction and efficiency rebates and customized energy usage reports for residential customers. These efficiency programs resulted in gross savings of 76,086 MWh in 2016. NIPSCO also provided gas efficiency programs including appliance and new construction rebates, low income weatherization, elementary education, and home audit programs, among others. These efficiency programs resulted in gross savings of 2,440,483 therms in 2016. NiSource operates a number of natural gas distribution energy efficiency programs through its six distribution companies (Columbia Gas of Virginia, Columbia Gas of Ohio, Columbia Gas of Massachusetts, Columbia Gas of Pennsylvania, Columbia Gas of Maryland, and Columbia Gas of Kentucky). During 2016, our natural gas efficiency programs in Kentucky, Maryland, Massachusetts, Ohio, Pennsylvania, and Virginia saved customers over 1,397,399 mcf (thousand cubic feet) of natural gas.		1						
Other	NiSource is also engaged in a robust, multi-year effort to replace existing natural gas distribution pipes with modern, state-of-the-art materials, such as advanced plastics and protected steel. These investments improve the safety and reliability of the company's gas distribution system and reduce methane emissions associated with small leaks. While NiSource has already achieved significant methane emission reductions, the company is committed to reducing these emissions even further through an ongoing priority pipe replacement program.Additionally, as a founding member in	54429	Scope 1	Voluntary		20000000000		>30 years	

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Com
	EPA's Natural Gas STAR Methane Challenge voluntary program, we are reinforcing our commitment to infrastructure modernization through investments that improve safety and reliability while reducing emissions. NiSource has committed to replace 1.5% of bare steel and cast iron inventory annually over the next 5 years. This includes replacing 6.5% of bare steel and cast iron pipeline inventory at Columbia Gas of Maryland and Columbia Gas of Virginia annually over the next 5 years. All NiSource utilities are represented in the commitments -- Indiana, Massachusetts, Ohio, and Pennsylvania are also committed individually to best management practices associated with the Methane Challenge Program with specific targets identified for each company. These targets are publically available at: https://www3.epa.gov/gasstar/methanechallenge/partners.html (See the "Methane Challenge Partner Commitments" file that is linked to the site.) Through the five-year program commitment, NiSource will continue to replace cast iron and bare steel pipelines remaining in our natural gas system. As part of planned investments, NiSource expects to further reduce methane emissions by more than 300 million cubic feet. In 2005, NiSource established a voluntary GHG emission reduction goal of reducing our carbon intensity by 7% from 2001 levels by 2012. NiSource met that goal, and continues to make progress. NiSource has made a long term commitment to modernizing/growing our infrastructure. Infrastructure investments of $30 billion over the next 20+ years will result in more efficient energy delivery and lower GHG emission intensities. We recently established a new reduction goal reflecting how our infrastructure investments plans reduce greenhouse gas emissions, as described above.								

CC3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	State regulatory commissions frequently issue orders mandating that utilities offer programs to help customers save money. NiSource's demand-side management programs are regulated by these state commissions and have regular reporting requirements.
Dedicated budget for energy efficiency	NiSource companies staff DSM departments and budget for the necessary resources to ensure thorough execution and reporting of DSM programs.
Dedicated budget for other emissions reduction activities	NIPSCO has staff dedicated to conducting evaluations of the electric generating system which result in recommendations and projects to improve the unit heat rates and result in lower GHG emissions.

CC3.3d

If you do not have any emissions reduction initiatives, please explain why not

Further Information

As part of its regular electric supply planning process, NIPSCO recently announced that it is considering long-term supply options, which will lead to the retirement of the company's two coal-fired units at the Bailly Generating Station and two additional coal-fired units at the R.M. Schahfer Generating Station over the next seven years. These retirements will result in significant reductions in GHG emissions from the company's electric generation portfolio, among other environmental benefits. For complete details regarding NIPSCO's resource planning strategy outside of its GHG reductions, please visit www.nipsco.com/IRP. As part of the company's ongoing commitment to reduce GHG emissions, NiSource announced in 2017 forward-looking GHG emission targets. NiSource is targeting a 50% reduction of GHG emissions from electric generation by 2025 from a 2005 baseline, and a 50% reduction in methane emissions from its gas distribution mains and services over the same period. These emission sources account for approximately 95% of NiSource's total direct GHG emissions. NiSource has established greenhouse gas emission targets that demonstrate the company's commitment to reducing greenhouse gas emissions. NiSource recently announced the following emission reduction targets: •50% reduction in methane emissions from mains and services by 2025 from 2005 levels. •50% reduction in greenhouse gas emissions (CO_2, CH_4, N_2O) from electric generation by 2025 from 2005 levels. NiSource is on track to meet these targets, as indicated through the company's progress through 2016: •28% reduction in methane emissions from mains and services through 2016 from 2005 levels. •41% reduction in greenhouse gas emissions from electric generation through 2016 from 2005 levels. The 2005 emissions baseline of 19.414,179 metric tonnes CO_2e represents NiSource's Scope 1 emissions from electric generation and gas distribution mains and services. For more information regarding NiSource's greenhouse gas emissions strategy, along

with the company's comprehensive greenhouse gas inventory, please see NiSource's 2016 Greenhouse Gas Report at https://www.nisource.com/company/our-commitments/sustainability-archives.

Page: CC4. Communication

CC4.1

Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)

Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communications	Complete	All	https://www.cdp.net/sites/2017/14/13314/Climate Change 2017/Shared Documents/Attachments/CC4.1/2016-nisource-greenhouse-report.pdf	2016 NiSource Greenhouse Gas Report is available on our website at https://www.nisource.com/company/our-commitments/sustainability-archives
In other regulatory filings	Complete	Page 13 and 92	https://www.cdp.net/sites/2017/14/13314/Climate Change 2017/Shared Documents/Attachments/CC4.1/2016 10-K Filing.pdf	Our 10-K report reads, "A disruption or failure of natural gas distribution systems, or within electric generation, transmission or distribution systems, in the event of a major hurricane, tornado, terrorist attack or other catastrophic event could cause delays in completing sales, providing services, or performing other critical functions. NiSource has experienced disruptions in the past from hurricanes and tornadoes and other events of this nature. The occurrence of such events could adversely affect NiSource's financial position and results of operations. In accordance with customary industry practice, NiSource maintains insurance against some, but not all, of these risks and losses. There is also a concern that climate change may exacerbate the risks to physical infrastructure. Such risks include heat stresses to power lines, storms that damage infrastructure, lake and sea level changes that damage the manner in which services are currently provided, droughts or other stresses on water used to supply services, and other extreme weather conditions. Climate change and the costs that may be associated with its impacts have the potential to affect NiSource's business in many ways,

Publication	Status	Page/Section reference	Attach the document	Comment
				including increasing the cost NiSource incurs in providing its products and services, impacting the demand for and consumption of its products and services (due to change in both costs and weather patterns), and affecting the economic health of the regions in which NiSource operates. Future legislative and regulatory programs, including implementation of the EPA CPP, could significantly limit allowed GHG emissions or impose a cost or tax on GHG emissions. Additionally, rules that increase methane leak detection, require emission reductions or impose additional requirements for natural gas facilities could restrict GHG emissions and impose additional costs. The CPP and other federally enacted or proposed GHG reduction measures are subject to numerous legal challenges that could change the way the programs are implemented, and NiSource will carefully monitor all GHG reduction proposals and regulations."
In voluntary communications	Complete	Slides 3-5	https://www.cdp.net/sites/2017/14/13314/Climate Change 2017/Shared Documents/Attachments/CC4.1/2016-nisource-sustainability-supplement.pdf	The Supplemental Sustainability Data includes more detail, including historical measurements, on additional sustainability metrics commonly tracked and requested by individual stakeholders. These metrics include GHG data on slides 3, 4, and 5.

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation
Risks driven by changes in physical climate parameters
Risks driven by changes in other climate-related developments

CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Carbon taxes	Future legislative and regulatory programs could significantly restrict emissions of GHGs or could impose a cost or tax on GHG emissions. Recently, proposals have been developed to implement federal, state and regional GHG programs and to create renewable energy standards.Imposing statutory or regulatory restrictions on GHG emissions could increase the cost of producing energy or delivering natural gas, which could negatively impact customer demand and increase customer costs. Compliance costs associated with these requirements could also	Reduced demand for goods/services	Unknown	Direct	Unknown	Unknown			

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	affect cash flow.								
Air pollution limits	If a federal or state comprehensive climate change bill were to be enacted into law, the impact on NiSource's financial performance would depend on a number of factors, including the overall level of required GHG reductions, the targets, the degree to which offsets may be used for compliance, the amount of recovery allowed from customers, and the extent to which NiSource would be entitled to receive CO2 allowances at no cost. Comprehensive federal or state GHG regulation could result in additional expense or compliance costs that may not be fully recoverable from customers and could materially impact NiSource's financial results.	Increased capital cost	Unknown	Direct	Unknown	Unknown			
Uncertainty surrounding new regulation	Existing environmental laws and regulations may be revised and new environmental laws and regulations may be adopted or become applicable to NiSource companies. Revised or additional laws and regulations could result in significant additional operating expenses,	Increased operational cost	Unknown	Direct	Unknown	Unknown			

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	restrictions on facilities and increased compliance costs. Because NiSource operations involve the use of natural gas and coal fossil fuels, emissions of greenhouse gases are inherent in the business and cannot be entirely eliminated. The cost impact of any new or amended climate related legislation or regulations would depend upon the specific requirements enacted. Future legislative and regulatory programs, including implementation of the U.S. Environmental Protection Agency's (EPA) Clean Power Plan (CPP), could significantly limit allowed GHG emissions or impose a cost or tax on GHG emissions. Additionally, rules that increase methane leak detection, require emission reductions or impose additional requirements for natural gas facilities could restrict GHG emissions and impose additional costs. The CPP and other federally enacted or proposed GHG reduction measures are subject to numerous legal challenges that could								

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	change the way the programs are implemented, and NiSource will carefully monitor all GHG reduction proposals and regulations.After potential implementation of the CPP, or if a federal or state comprehensive climate change bill were to be enacted into law, the impact on NiSource's financial performance would depend on a number of factors, including the overall level of required GHG reductions, the renewable energy targets, the degree to which offsets may be used for compliance, the amount of recovery allowed from customers, and the extent to which NiSource would be entitled to receive CO2 allowances at no cost. Comprehensive federal or state GHG regulation could result in additional expense or compliance costs that may not be fully recoverable from customers and could materially impact NiSource's financial results.								

CC5.1b

Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Other physical climate drivers	A disruption or failure of natural gas distribution systems, or within electric generation, transmission or distribution systems, in the event of a major hurricane, tornado, terrorist attack or other catastrophic event could cause delays in completing sales, providing services, or performing other critical functions. NiSource has experienced disruptions in the past from hurricanes and tornadoes and other events of this nature. The occurrence of such events could adversely affect NiSource's financial position and results of operations. In accordance with customary industry practice, NiSource maintains insurance against some, but not all, of these risks and losses. There is also a concern that climate change may exacerbate the risks to physical infrastructure. Such risks include heat stresses to power lines, storms that damage infrastructure, lake and sea level changes that damage the manner in which services are currently provided, droughts or other stresses on water used to supply services, and other extreme weather conditions. Climate change and the costs that may be	Other: Disrupt operations and reduce the ability to service customers	Unknown	Direct	Unknown	Unknown			

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	associated with its impacts have the potential to affect NiSource's business in many ways, including increasing the cost NiSource incurs in providing its products and services, impacting the demand for and consumption of its products and services (due to change in both costs and weather patterns), and affecting the economic health of the regions in which NiSource operates.								

CC5.1c

Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Uncertainty in market signals	The economic effects of climate change issues are largely unknown.	Increased capital cost	Unknown	Direct	Unknown	Unknown			
Reputation	The reputation of all energy companies could be affected by "other climate-related developments." However, NiSource currently identifies and pursues innovative projects that aid in reducing the GHG emissions of our operations through customer initiatives and pipeline modernization	Other: Unknown	Unknown	Direct	Unknown	Unknown			

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	programs.								

CC5.1d

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC5.1e

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC5.1f

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Further Information

Existing climate related environmental laws and regulations may be revised and become applicable to NiSource companies. Revised or additional laws and regulations could result in significant additional operating expenses, restrictions on facilities and increased compliance costs. Because NiSource operations involve the use of natural gas and coal fossil fuels, emissions of greenhouse gases are inherent in the business and cannot be entirely eliminated. The cost impact of any new or amended climate related legislation or regulations would depend upon the specific requirements enacted.

Page: CC6. Climate Change Opportunities

CC6.1

Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation

CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Voluntary agreements	Increased domestic supply of natural gas, combined with low cost and positive environmental attributes will continue to provide opportunities.	Investment opportunities	Unknown	Direct	Unknown	Unknown			
General environmental regulations, including planning	Investments such as pipeline modernization programs, reduce greenhouse gas emissions. NiSource's plans also include investments	Investment opportunities	>6 years	Direct	Virtually certain	High			

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	in future electric generation resources with lower GHG emission intensities, reducing the company's exposure to GHG regulatory risk. Finally, the expanding domestic supply of natural gas, combined with its low cost and positive environmental attributes, will continue to positively impact NiSource. With approximately two thirds of NiSource's existing operations solidly connected to the natural gas industry, an investment plan that includes approximately $30 billion in system modernization and growth projects, infrastructure and customer programs, and an industry-leading regulated platform, NiSource is well positioned for the future.								

Please describe your inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management

CC6.1c

Please describe your inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management

CC6.1d

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC6.1e

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

NiSource invests in initiatives to reduce our environmental impacts, while at the same time encouraging our customers to reduce their energy consumption through energy efficiency and education programs. Some of our investments include: providing energy-saving incentives for customers; procuring renewable energy resources; reducing methane emissions from company natural gas systems; improving air quality in our areas of operations; managing water and resources; and serving as responsible stewards of natural and environmental resources. We employ many dedicated environmental specialists with a focus on improving the environment. Our systems and programs are integrated to enable this team to track, monitor, and report progress to our stakeholders, enhancing and assuring compliance.

NiSource is closely managing challenges associated with an aging infrastructure, including incorporating greenhouse gas and other environmental regulations into our planning exercises. The expanding domestic supply of natural gas, combined with its low cost and positive environmental impact will continue to influence NiSource decision making. With a large portion of NiSource's existing operations connected to the natural gas industry, an investment plan that includes approximately $30 billion in infrastructure modernization programs that help reduce emissions, multiple energy efficiency programs for our customers, and an industry-leading regulated platform, NiSource continues to plan for a carbon-constrained future due to regulatory changes.

CC6.1f

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

NiSource invests in initiatives to reduce our environmental impacts, while at the same time encouraging our customers to reduce their energy consumption through energy efficiency and education programs. Some of our investments include: providing energy-saving incentives for customers; procuring renewable energy resources; reducing methane emissions from company natural gas systems; improving air quality in our areas of operations; managing water and resources; and serving as responsible stewards of natural and environmental resources. We employ many dedicated environmental specialists with a focus on improving the environment. Our systems and programs are integrated to enable this team to track, monitor, and report progress to our stakeholders, enhancing and assuring compliance.

NiSource is closely managing challenges associated with an aging infrastructure, including incorporating greenhouse gas and other environmental regulations into our planning exercises. The expanding domestic supply of natural gas, combined with its low cost and positive environmental impact will continue to influence NiSource decision making. With a large portion of NiSource's existing operations connected to the natural gas industry, an investment plan that includes approximately $30 billion in infrastructure modernization programs that help reduce emissions, multiple energy efficiency programs for our customers, and an industry-leading regulated platform, NiSource continues to plan for a carbon-constrained future due to regulatory changes.

Further Information

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: CC7. Emissions Methodology

CC7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Sat 01 Jan 2005 - Sat 31 Dec 2005	20190231
Scope 2 (location-based)	Sat 01 Jan 2005 - Sat 31 Dec 2005	65297
Scope 2 (market-based)		

CC7.2

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use
US EPA Mandatory Greenhouse Gas Reporting Rule
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

CC7.2a

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

NA

CC7.3

Please give the source for the global warming potentials you have used

Gas	Reference
CO2	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	IPCC Fourth Assessment Report (AR4 - 100 year)

CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
Aviation gasoline	69.25	Other: kg CO2 / MMBtu	USEPA GHG Reporting Rule, Subpart C, Table C-1
Aviation gasoline	0.003	Other: kg CH4 / MMBtu	USEPA GHG Reporting Rule, Subpart C, Table C-2
Aviation gasoline	0.0006	Other: kg N2O / MMBtu	USEPA GHG Reporting Rule, Subpart C, Table C-2
Other: Coal	0	Other: Tonnes CO2	CO2 measured by CEMS at all coal fired units
Other: Coal	0.011	Other: kg CH4 / MMBtu	USEPA GHG Reporting Rule, Subpart C, Table C-2

Fuel/Material/Energy	Emission Factor	Unit	Reference
Other: Coal	0.0016	Other: kg N2O / MMBtu	USEPA GHG Reporting Rule, Subpart C, Table C-2
Diesel/Gas oil	22.15	Other: lb CO2 per gallon	EPA420-F-05-001 Feb 2005
Diesel/Gas oil	0.0051	Other: grams CH4 / mile	DOE 1605b Technical Guidelines Table 1.D.2 (Jan 2007) Heavy Trucks
Diesel/Gas oil	0.048	Other: grams NO2 / mile	DOE 1605b Technical Guidelines Table 1.D.2 (Jan 2007) Heavy Trucks
Other: Gasoline	19.36	lb CO2 per gallon	EPA420-F-05-001 Feb 2005
Other: Gasoline	0.0169	Other: grams CH4 / mile	DOE 1605b Technical Guidelines Table 1.D.2 (Jan 2007) based on vehicle type
Other: Gasoline	0.0146	Other: grams N2O / mile	DOE 1605b Technical Guidelines Table 1.D.2 (Jan 2007) based on vehicle type
Other: Jet Fuel	72.22	Other: kg CO2 / MMBtu	USEPA GHG Reporting Rule, Subpart C, Table C-1
Other: Jet Fuel	0.003	Other: kg CH4 / MMBtu	USEPA GHG Reporting Rule, Subpart C, Table C-2
Other: Jet Fuel	0.0006	Other: kg N2O / MMBtu	USEPA GHG Reporting Rule, Subpart C, Table C-2
Natural gas	53.06	Other: kg CO2 / MMBtu	USEPA GHG Reporting Rule, Subpart C, Table C-1
Natural gas	0.001	Other: kg CH4 / MMBtu	USEPA GHG Reporting Rule, Subpart C, Table C-2
Natural gas	0.0001	Other: kg N2O / MMBtu	USEPA GHG Reporting Rule, Subpart C, Table C-2
Other: Electricity - Purchased	587.2782	kg CO2 per MWh	DOE eGrid 2014
Other: Electricity - Purchased	0.0559	Other: kg CH4 / MWh	DOE eGrid 2014
Other: Electricity - Purchased	0.008	Other: kg N2O / MWh	DOE eGrid 2014

Further Information

Page: CC8. Emissions Data - (1 Jan 2016 - 31 Dec 2016)

CC8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

12266516

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have no operations where we are able to access electricity supplier emissions factors or residual emissions factors and are unable to report a Scope 2, market-based figure	NiSource Indirect (Scope 2) Emissions are derived from electric consumption at company facilities. NiSource calculates indirect greenhouse gas emissions from electric consumption by obtaining total yearly usage in kilowatt-hours and applying an emission factor that is specific to the region, state, electrical utility or even specific generator where the electricity was produced. For 2016 NiSource GHG Inventories, the electric usage emission factors for each state are obtained from the EPA's e-GRID database.

CC8.3a

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
56027		This is our electric consumption at company facilities across

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
		NiSource.

CC8.4

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded

CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 2% but less than or equal to 5%	Data Gaps Metering/ Measurement Constraints Other: Published Emission Factors	The largest contributors to Scope 1 emissions are coal-fired electric generation units and natural gas-fired compressors, heaters and boilers. The coal-fired units have accurate fuel consumption data and measure CO2 emissions from the exhaust stacks; while the natural gas-fired equipment usage is automatically logged and kept in a central database. Therefore, the uncertainty in the fuel usage and GHG emissions from these combustion units is very low. The largest uncertainties in the Scope 1 emissions come from the fugitive and vented emissions from natural gas distribution operations. Methane emission methodologies from these sectors are largely based on data from a 1996 GRI/EPA study.
Scope 2 (location-based)	More than 2% but less than or equal to 5%	Data Gaps Extrapolation Metering/ Measurement Constraints Other: Published Emission Factors	NiSource continues to review emission factor sources to ensure that the Scope 2 GHG emissions are calculated using the latest versions of eGrid, CBECs and DOE data. The electric and heating usages of NiSource facilities are calculated using regional emission factors and these emissions have the largest uncertainty of the Scope 2 emissions. The emissions from the NiSource vehicle fleets are calculated using mileage obtained from each vehicle. NiSource subsidiary companies utilize data systems to collect monthly vehicle mileage for all of 2015.
Scope 2 (market-based)			

CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

Third party verification or assurance process in place

CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Annual process	First year it has taken place	Limited assurance	https://www.cdp.net/sites/2017/14/13314/Climate Change 2017/Shared Documents/Attachments/CC8.6a/CDP Greenhouse Gas Verification Statement Letter_NiSource_v1.1.docx	All	ISO14064-3	100

CC8.6b

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emission Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission

CC8.7

Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

Third party verification or assurance process in place

CC8.7a

Please provide further details of the verification/assurance undertaken for your location-based and/or market-based Scope 2 emissions, and attach the relevant statements

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Location-based	Annual process	First year it has taken place	Limited assurance	https://www.cdp.net/sites/2017/14/13314/Climate Change 2017/Shared Documents/Attachments/CC8.7a/CDP Greenhouse Gas Verification Statement Letter_NiSource_v1.1.docx	All	ISO14064-3	100

CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
Other: Particulate Matter Emissions	NiSource is reporting its 2016 environmental KPIs as part of its response to the 2017 Dow Jones Sustainability Index (DJSI) Questionnaire
Other: Mercury	NiSource is reporting its 2016 environmental KPIs as part of its response to the 2017 Dow Jones Sustainability Index (DJSI) Questionnaire
Other: Sulfur Dioxide	NiSource is reporting its 2016 environmental KPIs as part of its response to the 2017 Dow Jones Sustainability Index (DJSI) Questionnaire
Other: Nitrogen Oxides	NiSource is reporting its 2016 environmental KPIs as part of its response to the 2017 Dow Jones Sustainability Index (DJSI) Questionnaire
Other: Sulfur Hexafluoride	NiSource is reporting its 2016 environmental KPIs as part of its response to the 2017 Dow Jones Sustainability Index (DJSI) Questionnaire
Other: Water consumption	NiSource is reporting its 2016 environmental KPIs as part of its response to the 2017 Dow Jones Sustainability Index (DJSI) Questionnaire
Other: Fly Ash/Gypsum Recycling	NiSource is reporting its 2016 environmental KPIs as part of its response to the 2017 Dow Jones Sustainability Index (DJSI) Questionnaire
Other: Solid Waste disposal	NiSource is reporting its 2016 environmental KPIs as part of its response to the 2017 Dow Jones Sustainability Index (DJSI) Questionnaire

Additional data points verified	Comment
Other: Hazardous Waste disposal	NiSource is reporting its 2016 environmental KPIs as part of its response to the 2017 Dow Jones Sustainability Index (DJSI) Questionnaire

CC8.9

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

Yes

CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

Further Information

NiSource was an active member of the UtiliTree Carbon Company, a non-profit organization sponsoring a portfolio of forestry projects that manage greenhouse gases, particularly carbon dioxide, until the organization discontinued operations in 2015.

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC9.1

Do you have Scope 1 emissions sources in more than one country?

No

CC9.1a

Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e

CC9.2

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By business division
By GHG type
By activity

CC9.2a

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)
Electric Generation	10800877
Electric Transmission and Distribution	72401
Natural Gas Distribution	1393239

CC9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude

CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)
CO2	10846247
CH4	1311643
N2O	43996
SF6	64632

CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)
Electric Generation	10789412
Electric Transmission and Distribution	64632
Natural Gas Distribution - Combustion	61294

Activity	Scope 1 emissions (metric tonnes CO2e)
Natural Gas Distribution - Fugitive/Vented	1254671
Natural Gas Distribution Storage - Combustion	3796
Natural Gas Distribution Storage - Fugitive/Vented	33031
Natural Gas Distribution Storage - LNG/LPG	5960
Building Natural Gas	11985
Mobile Sources	41736

Further Information

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC10.1

Do you have Scope 2 emissions sources in more than one country?

No

CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)

CC10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By business division
By activity

CC10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Electric Generation	10250	
Electric Transmission and Distribution	12921	
Natural Gas Distribution	32857	

CC10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)

CC10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Building Electricity Consumption	56027	

Further Information

Page: CC11. Energy

CC11.1

What percentage of your total operational spend in the reporting year was on energy?

CC11.2

Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Heat	66134.25
Steam	
Cooling	74463.78

CC11.3

Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year

CC11.3a

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
			NiSource has 230 facility locations that consume energy across 7 states. At this time, NiSource does not have a centralized mechanism to fully track and document energy consumption at all locations. However, NiSource estimates building electricity and natural gas consumption using the standardized methodology described below: The United States Energy Information Administration (EIA) regularly publishes both electricity and natural gas consumption intensity data by building type and building location. The data originate from the EIA's "Commercial Buildings Energy Consumption Survey" (CBECS). NiSource uses the energy consumption intensity data from CBECS (e.g., kWh/sq ft, MBtu/sq ft) to estimate the energy consumption of NiSource buildings. Energy consumption is estimated by multiplying the appropriate intensity factor by the square footage of each company building (for each building type and location). The resulting values are estimates of both

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
			electricity consumption and natural gas consumption for NiSource's facilities. These energy consumption estimates are used to estimate emissions associated with NiSource's building energy consumption. These emission estimates are included in NiSource's Scope 1 and Scope 2 greenhouse gas emissions inventory, which has been verified by an independent third party.

CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
					The electricity consumed by NiSource buildings comes from the electric grid. While there are many electric generating resources connected to the grid, including renewable energy resources, NiSource is unable to estimate the amount of renewable energy consumed by company buildings given limited grid data availability. For this reason, NiSource's electricity consumption values are listed in the "Electricity (non-renewable)" section to be conservative, even though renewable energy resources feed into the overall electric grid and NiSource buildings are, therefore, partially powered by renewable energy.

Further Information

Page: CC12. Emissions Performance

CC12.1

How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Decreased

CC12.1a

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	1.05	Decrease	Fugitive and vented methane emissions have decreased as a result of our ongoing natural gas pipeline replacement program. 2015 CO2e emissions: 1,268,034 2016 CO2e emissions: 1,254,671
Divestment			
Acquisitions			
Mergers			
Change in output	1.18	Decrease	Reduction in electric generation output compared to 2015. 2015 CO2e emissions: 10,917,907 2016 CO2e emissions: 10,789,412 2015 net MWh output: 11,874,182 2016 net MWh output: 11,781,150
Change in methodology			
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other	40	Increase	We saw increases in the following areas in 2016: Underground Storage - Fugitive & Vented Underground Storage - Combustion Mobile Indirect Electric LNG/LPG Electric Transmission & Distribution (SF6) 2015 CO2e emissions: 146,373 2016 CO2e emissions: 205,182

CC12.1b

Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.002742914599742	metric tonnes CO2e	4492500000	Location-based	2.86	Increase	NiSource revenues were down by 3% in 2016 compared to 2015, however emissions were also down by 1% compared to 2015.

CC12.3

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
1538.97	metric tonnes CO2e	full time equivalent (FTE) employee	8007	Location-based	5.76	Decrease	We increased our total FTEs by 411 in 2016.
0.92	metric tonnes CO2e	megawatt hour (MWh)	11781150	Location-based	0.40	Decrease	We produced less electricity, which resulted in reduced emissions.

Further Information

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

CC13.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership

CC13.1b

What is your strategy for complying with the schemes in which you participate or anticipate participating?

CC13.2

Has your organization originated any project-based carbon credits or purchased any within the reporting period?

No

CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits canceled	Purpose, e.g. compliance

Further Information

Page: CC14. Scope 3 Emissions

CC14.1

Please account for your organization’s Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, calculated	3652183	A NiSource subsidiary (NIPSCO) purchases electricity for delivery to its customers. This electricity is supplied by MISO, which is the local operator of the electrical transmission grid. MISO does not report greenhouse gas emissions from its electricity suppliers and has not calculated an average greenhouse gas emission factor for the electricity it supplies to NIPSCO. The mix of electrical generation types in the United States has been changing as coal fired units are taken out of service, natural gas plants are constructed and more wind power and solar power is available for purchase. Given this annual variation in generation, NiSource has chosen to use emission factors from the US EPA's eGrid database, which is usually updated annually. Carbon dioxide, methane and nitrous oxide emissions per megawatt-hour of electricity produced are reported in eGrid by individual generating units, by company and also by NERC region. NIPSCO is located closest to the MRO, RFC and SERC regions given in the eGrid database. There is currently no way to track which region the electricity supplied by MISO comes from, so the NiSource Purchased Power emission factor was chosen to be the average of the emission factors from these three NERC regions. Each year, the eGrid database is checked to ensure that the latest eGrid emission factors are used to calculate the Scope 3 emissions in the NiSource Greenhouse Gas	100.00%	NiSource Scope 3 emissions come from purchased electric power. NIPSCO Power Purchase Agreements (PPAs) - Barton and Buffalo Ridge Wind: NIPSCO is currently engaged in a 20-year PPA with Iberdola, in which NIPSCO will purchase generation from Barton. Barton, located in Worth County, Iowa went into commercial operation on April 10, 2009. The total net output from Barton is 50 MW. NIPSCO is also engaged in a 15-year PPA with Iberdola, in which NIPSCO will purchase generation from Buffalo Ridge. Buffalo Ridge, located in Brookings County South Dakota, went into commercial operation on April 15, 2009. The total net output of Buffalo Ridge is 50.4 MW. In 2016, NIPSCO purchased 282 GWh of wind energy from the two wind farms. In addition to the renewable wind energy purchased by NIPSCO, the company is continuing three popular customer programs that encourage the use of renewable resources. These include the Feed-In Tariff, Net Metering and Green Power programs. The Green Power program allows electric customers to pay a premium, approximately $2 per month for the average home, and designate 25, 50 or 100 percent of their monthly electric usage to be attributed to renewable energy sources. Nearly 930 homes and businesses are enrolled in the program. The Feed-In Tariff and Net Metering programs promote renewable electric generation by

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
			Inventory.		allowing customers to generate their own electricity via renewable resources. Between the two programs, over 358,000 megawatt hours have been generated by renewable sources since 2011 -- over 107,000 megawatt hours in 2016 alone.
Capital goods					
Fuel-and-energy-related activities (not included in Scope 1 or 2)					
Upstream transportation and distribution					
Waste generated in operations					
Business travel					
Employee commuting					
Upstream leased assets					
Downstream transportation and distribution					
Processing of sold products					
Use of sold products					
End of life					

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
treatment of sold products					
Downstream leased assets					
Franchises					
Investments					
Other (upstream)					
Other (downstream)					

CC14.2

Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

Third party verification or assurance process in place

CC14.2a

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)
Annual process	First year it has taken place	Limited assurance	https://www.cdp.net/sites/2017/14/13314/Climate Change 2017/Shared Documents/Attachments/CC14.2a/CDP Greenhouse Gas Verification Statement Letter_NiSource_v1.1.pdf	All	ISO14064-3	100

CC14.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Purchased goods & services	Other: Change in purchased power.	4.89	Increase	We purchased more energy from MISO in 2016.

CC14.4

Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

Yes, our customers

CC14.4a

Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

At NIPSCO, we are offering opportunities for customers to generate their own electricity from renewable resources to offset their bills. To support more sustainable renewable electricity generation, NIPSCO's Net Metering program allows customers to generate up to 1 MW of their own renewable energy from solar, wind or hydroelectric sources. The power generated would be reimbursed through a credit on their monthly electric bill. In addition, NIPSCO has developed a Feed-in Tariff program which allows customers to connect up to 200 kW megawatts of solar and 1 MW of biomass generation to our NIPSCO power grid and sell the generated power back to the company. Between the two programs, over 358,000 megawatt hours have been generated by renewable sources since 2011 -- over 107,000 megawatt hours in 2016 alone.

These programs are available to encourage customers to invest in renewable energy solutions. While many utilities purchase renewable energy from their customers, most do so with the variable rates and short-term contracts which can create financing difficulties. Very few utilities offer long-term, fixed-rate purchase contracts. NIPSCO believes that its proposed long-term, fixed rate contracts will better encourage renewable energy investments.

Currently all of the NiSource companies offer energy efficiency programs and services. These are used by customers to reduce their energy usage and increase the efficiency of their homes or businesses.

Here is one example of the residential programs available through one of NiSource's gas companies (Columbia Gas of Ohio).
https://www.columbiagasohio.com/ways-to-save

In 2016 NIPSCO provided electric efficiency programs which include residential lighting, home energy audits, low income weatherization, commercial and industrial incentives, energy efficiency audits for schools, residential new construction and efficiency rebates and customized energy usage reports for residential customers. These efficiency programs resulted in gross savings of 76,086 MWh in 2016.

NIPSCO also provided gas efficiency programs including appliance and new construction rebates, low income weatherization, elementary education, and home audit programs, among others. These efficiency programs resulted in gross savings of 2,440,483 therms in 2016.

Here is the link to the commercial/industrial programs available through NIPSCO.

https://www.nipsco.com/save-energy/business

NiSource operates a number of natural gas distribution energy efficiency programs through its six distribution companies (Columbia Gas of Virginia, Columbia Gas of Ohio, Columbia Gas of Massachusetts, Columbia Gas of Pennsylvania, Columbia Gas of Maryland, and Columbia Gas of Kentucky). These programs served 503,316 customers and resulted in total savings of $5,371,100 for customers in 2016. During 2016, our natural gas efficiency programs in Kentucky, Maryland, Massachusetts, Ohio, Pennsylvania, and Virginia saved customers over 1,397,399 mcf (thousand cubic feet) of natural gas.

CC14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement

CC14.4c

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

Further Information

Module: Sign Off

Page: CC15. Sign Off

CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Kelly Carmichael	Vice President, Environmental	Other: Vice President

Further Information

Module: Oil & Gas

Page: OG0. Reference information

OG0.1

Please identify the significant petroleum industry components of your business within your reporting boundary (select all that apply)

Storage, transportation & distribution

Further Information

Page: OG1. Production, reserves and sales by hydrocarbon type - (1 Jan 2016 - 31 Dec 2016)

OG1.1

Is your organization involved with oil & gas production or reserves?

No

OG1.2

Please provide values for annual gross and net production by hydrocarbon type (in units of BOE) for the reporting year in the following table. The values required are aggregate values for the reporting organization

Product	Gross production (BOE)	Net production (BOE)	Production consolidation boundary	Comment

OG1.3

Please provide values for reserves by hydrocarbon type (in units of BOE) for the reporting year. Please indicate if the figures are for reserves that are proved, probable or both proved and probable. The values required are aggregate values for the reporting organization

Product	Country/region	Reserves (BOE)	Date of assessment	Proved/Probable/Proved+Probable

OG1.4

Please explain which listing requirements or other methodologies you have used to provide reserves data in OG1.3. If your organization cannot provide data due to legal restrictions on reporting reserves figures in certain countries, please explain this

OG1.5

Please provide values for annual sales of hydrocarbon types (in units of BOE) for the reporting year in the following table. The values required are aggregate values for the reporting organization

Product	Sales (BOE)	Comment

OG1.6

Please provide the average breakeven cost of current production used in estimation of proven reserves

Hydrocarbon/project	Breakeven cost/BOE	Comment

OG1.7

In your economic assessment of hydrocarbon reserves, resources or assets, do you conduct scenario analysis and/or portfolio stress testing consistent with a low-carbon energy transition?

No

OG1.7a

Please describe your scenario analysis and/or portfolio stress testing, the inputs used and the implications for your capital expenditure plans and investment decisions

OG1.7b

Please explain why you have not conducted any scenario analysis and/or portfolio stress testing consistent with a low-carbon energy transition

NiSource is not involved with oil and gas production or reserves.

Further Information

Page: OG2. Emissions by segment in the O&G value chain - (1 Jan 2016 - 31 Dec 2016)

OG2.1

Please indicate the consolidation basis (financial control, operational control, equity share) used to report the Scope 1 and Scope 2 emissions by segment in the O&G value chain. Further information can be provided in the text box in OG2.2

Segment	Consolidation basis for reporting Scope 1 emissions	Consolidation basis for reporting Scope 2 emissions
Storage, transportation & distribution	Operational Control	Operational Control

OG2.2

Please provide clarification for cases in which different consolidation bases have been used and the level/focus of disclosure. For example, a reporting organization whose business is solely in storage, transportation and distribution (STD) may use the text box to explain why only the STD row has been completed

NiSource subsidiary companies operate primarily in the natural gas distribution sector, and NiSource does not have operational control of assets in the exploration and production, refining, or retail and marketing sector.

OG2.3

Please provide masses of gross Scope 1 carbon dioxide and methane emissions in units of metric tonnes CO2 and CH4, respectively, for the organization's owned/controlled operations broken down by value chain segment

Segment	Gross Scope 1 carbon dioxide emissions (metric tonnes CO2)	Gross Scope 1 methane emissions (metric tonnes CH4)
Storage, transportation & distribution	106794	51449

OG2.4

Please provide masses of gross Scope 2 GHG emissions in units of metric tonnes CO2e for the organization's owned/controlled operations broken down by value chain segment

Segment	Gross Scope 2 emissions (metric tonnes CO2e)	Comment
Storage, transportation & distribution	32857	2016 Scope 2 emissions are only from Indirect-Building Energy-Electric, whereas 2015 Scope 2 emissions also included Mobile emissions and Indirect-Building Energy-Gas.

Further Information

Page: OG3. Scope 1 emissions by emissions category - (1 Jan 2016 - 31 Dec 2016)

OG3.1

Please confirm the consolidation basis (financial control, operational control, equity share) used to report Scope 1 emissions by emissions category

Segment	Consolidation basis for reporting Scope 1 emissions by emissions category
Storage, transportation & distribution	Operational Control

OG3.2

Please provide clarification for cases in which different consolidation bases have been used to report by emissions categories (combustion, flaring, process emissions, vented emissions, fugitive emissions) in the various segments

Gas Distribution Combustion (includes underground storage combustion) - 65,090 tonnes (CO2e)
Gas Distribution Fugitive and Vented (includes LNG/LPG) - 1,293,662 tonnes (CO2e)

OG3.3

Please provide masses of gross Scope 1 carbon dioxide and methane emissions released into the atmosphere in units of metric tonnes CO2 and CH4, respectively, for the whole organization broken down by emissions category

Emissions category	Gross Scope 1 carbon dioxide emissions (metric tonnes CO2)	Gross Scope 1 methane emissions (metric tonnes CH4)
Combustion	65087	0
Flaring		
Process emissions		
Vented emissions		
Fugitive emissions	1638	51443

OG3.4

Please describe your organization's efforts to reduce flaring, including any flaring reduction targets set and/or its involvement in voluntary flaring reduction programs, if flaring is relevant to your operations

Flaring of emissions are included in our combustion emissions and are minimal.

Further Information

Page: OG4. Transfers & sequestration of CO2 emissions - (1 Jan 2016 - 31 Dec 2016)

OG4.1

Is your organization involved in the transfer or sequestration of CO2?

No

OG4.2

Please indicate the consolidation basis (financial control, operational control, equity share) used to report transfers and sequestration of CO2 emissions

Activity	Consolidation basis

OG4.3

Please provide clarification for cases in which different consolidation bases have been used (e.g. for a given activity, capture, injection or storage pathway)

OG4.4

Using the units of metric tonnes of CO2, please provide gross masses of CO2 transferred in and out of the reporting organization (as defined by the consolidation basis). Please note that questions of ownership of the CO2 are addressed in OG4.6

Transfer direction	CO2 transferred – Reporting year

OG4.5

Please provide clarification on whether any oil reservoirs and/or sequestration system (geological or oceanic) have been included within the organizational boundary of the reporting organization. Provide details, including degrees to which reservoirs are shared with other entities

OG4.6

Please explain who (e.g. the reporting organization) owns the transferred emissions and what potential liabilities are attached. In the case of sequestered emissions, please clarify whether the reporting organization or one or more third parties owns the sequestered emissions and who has potential liability for them

OG4.7

Please provide masses in metric tonnes of gross CO2 captured for purposes of carbon capture and sequestration (CCS) during the reporting year according to capture pathway. For each pathway, please provide a breakdown of the percentage of the gross captured CO2 that was transferred into the reporting organization and the percentage that was transferred out of the organization (to be stored)

Capture pathway in CCS	Captured CO2 (metric tonnes CO2)	Percentage transferred in	Percentage transferred out

OG4.8

Please provide masses in metric tonnes of gross CO2 injected and stored for purposes of CCS during the reporting year according to injection and storage pathway

Injection and storage pathway	Injected CO2 (metric tonnes CO2)	Percentage of injected CO2 intended for long-term (>100 year) storage	Year in which injection began	Cumulative CO2 injected and stored (metric tonnes CO2)

OG4.9

Please provide details of risk management performed by the reporting organization and/or third party in relation to its CCS activities. This should cover pre-operational evaluation of the storage (e.g. site characterization), operational monitoring, closure monitoring, remediation for CO2 leakage, and results of third party verification

Further Information

Page: OG5. Emissions intensity - (1 Jan 2016 - 31 Dec 2016)

OG5.1

Please provide estimated emissions intensities (Scope 1 + Scope 2) associated with current production and operations

Year ending	Segment	Hydrocarbon/product	Emissions intensity (metric tonnes CO2e per thousand BOE)	% change from previous year	Direction of change from previous year	Reason for change
2016	Storage, transportation & distribution	Associated natural gas Liquefied Natural Gas (LNG) Liquefied Petroleum Gas (LPG)	155216	4.13	Decrease	2015 intensity was 161,907. The emissions intensity decreased in 2016 as a result of pipeline replacements/upgrades.

OG5.2

Please clarify how each of the emissions intensities has been derived and supply information on the methodology used where this differs from information already given in answer to the methodology questions in the main information request

We calculated our annual throughput of our local distribution companies, converting MMDth to BOE, using a conversion of 1 BOE = 5.799 MMbtu.

Further Information

Page: OG6. Development strategy - (1 Jan 2016 - 31 Dec 2016)

OG6.1

For each relevant strategic development area, please provide financial information for the reporting year

Strategic development area	Describe how this relates to your business strategy	Sales generated	EBITDA	Net assets	CAPEX	OPEX	Comment
Energy efficiency	One of the key elements of our business strategy is to promote top-tier customer satisfaction. Currently all of the NiSource companies offer energy efficiency programs and services. These are used by customers to reduce their energy usage and increase the efficiency of their homes or businesses						NIPSCO provides gas efficiency programs including appliance and new construction rebates, low income weatherization, elementary education, and home audit programs, among others. These efficiency programs resulted in gross savings of 2,440,483 therms in 2016. NiSource operates a number of natural gas distribution energy efficiency programs through its six distribution companies (Columbia Gas of Virginia, Columbia Gas of Ohio, Columbia Gas of Massachusetts, Columbia Gas of Pennsylvania, Columbia Gas of Maryland, and Columbia Gas of Kentucky). This included low-Income, residential, and commercial and industrial efficiency programs. These programs served 503,316 customers and resulted in

Strategic development area	Describe how this relates to your business strategy	Sales generated	EBITDA	Net assets	CAPEX	OPEX	Comment
							total savings of $5,371,100 for customers in 2016. During 2016, our natural gas efficiency programs in Kentucky, Maryland, Massachusetts, Ohio, Pennsylvania, and Virginia saved customers over 1,397,399 mcf (thousand cubic feet) of natural gas.
Methane management	As a founding member in EPA's Natural Gas STAR Methane Challenge voluntary program, we are reinforcing our commitment to infrastructure modernization through investments that improve safety and reliability while reducing emissions.				1600000000		NiSource has committed to replace 1.5% of bare steel and cast iron inventory annually over the next 5 years. This includes replacing 6.5% of bare steel and cast iron pipeline inventory at Columbia Gas of Maryland and Columbia Gas of Virginia annually over the next 5 years. All NiSource utilities are represented in the commitments -- Indiana, Massachusetts, Ohio, and Pennsylvania are also committed individually to best management practices associated with the Methane Challenge Program with specific targets identified for each company.

OG6.2

Please describe your future capital expenditure plans for different strategic development areas

Strategic development area	CAPEX	Total return expected from CAPEX investments	Comment
Methane management	1700000000		Anticipated capital spend for infrastructure upgrades (pipeline replacement) in 2017 is $1.7 billion. Overall our plan is to spend $20 billion in natural gas system pipeline investments over a 20-year period.

OG6.3

Please describe your current expenses in research and development (R&D) and future R&D expenditure plans for different strategic development areas

Strategic development area	R&D expenses – Reporting year	R&D expenses – Future plans	Comment

Further Information

Page: OG7. Methane from the natural gas value chain

OG7.1

Please indicate the consolidation basis (financial control, operational control, equity share) used to prepare data to answer the questions in OG7

Segment	Consolidation basis
Storage, transportation & distribution	Operational Control

OG7.2

Please provide clarification for cases in which different consolidation bases have been used

NA

OG7.3

Does your organization conduct leak detection and repair (LDAR), or use other methods to find and fix fugitive methane emissions?

Yes

OG7.3a

Please describe the protocol through which methane leak detection and repair, or other leak detection methods, are conducted, including predominant frequency of inspections, estimates of assets covered, and methodologies employed

NiSource follows all state and federal laws and regulations regarding leak identification, monitoring, and repair.

OG7.3b

Please explain why not and whether you plan on conducting leak detection and repair, or other methods to find and fix fugitive methane emissions

OG7.4

Please indicate the proportion of your organization's methane emissions inventory estimated using the following methodologies (+/- 5%)

Methodology	Proportion of total methane emissions estimated with methodology	What area of your operations does this answer relate to?
Direct detection and measurement	10% to <25%	All
Engineering calculations	10% to <25%	All
Source-specific emission factors (IPCC Tier 3)	25% to <50%	All
IPCC Tier 1 and/or Tier 2 emission factors	10% to <25%	All

OG7.5

Please use the following table to report your methane emissions rate

Year ending	Segment	Estimate total methane emitted expressed as % of natural gas production or throughput at given segment	Estimate total methane emitted expressed as % of total hydrocarbon production or throughput at given segment
2016	Storage, transportation & distribution	0.31%	0.31%

OG7.6

Does your organization participate in voluntary methane emissions reduction programs?

Yes

OG7.6a

Please describe your organization’s participation in voluntary methane emissions reduction programs

In 2016, NiSource joined the EPA's Natural Gas STAR Methane Challenge as a founding member. Through this voluntary program, we are reinforcing our commitment to infrastructure modernization through investments that improve safety and reliability while reducing emissions. NiSource has committed to replace 1.5% of bare steel and cast iron inventory annually over the next 5 years. This includes replacing 6.5% of bare steel and cast iron pipeline inventory at Columbia Gas of Maryland and Virginia annually over the next 5 years. All NiSource utilities are represented in the commitments -- Indiana, Massachusetts, Ohio, and Pennsylvania are also committed individually to best management practices associated with the Methane Challenge Program with specific targets identified for each company.

Historically, NiSource has been involved in a number of voluntary GHG-related programs. Our earliest efforts to identify, track and reduce GHG emissions began with our partnership in the EPA’s Natural Gas STAR Program in 1993. With more than 20 years of participation and support, NiSource continues to make significant contributions to the Natural Gas STAR Program goals that encourage development of emission-reducing technologies and reporting of voluntary methane emission reductions. In 2005, NiSource contributed to another EPA-sponsored voluntary effort by participating in the EPA Climate Leaders Program. NiSource was the first Climate Leaders partner with both natural gas transmission and distribution-affiliate operations to inventory GHG emissions. Although phased out in 2010, the program provided companies with resources to develop and implement long-term GHG management strategies.

The Natural Gas STAR Program is a flexible, voluntary partnership that encourages oil and natural gas companies to adopt cost effective technologies and practices that improve operational efficiency and reduce methane emissions. All of the NiSource distribution companies were named Partner of the Year for the Distribution segment in 2004.

OG7.7

Did you have a methane-specific emissions reduction target that was active (ongoing or reached completion) in the reporting year and/or were methane emissions incorporated into targets reported in CC3?

Yes, a methane-specific emissions reduction target and methane emissions were incorporated into targets reported in CC3

OG7.7a

If you have a methane-specific emissions reduction target that is not detailed as a separate target in CC3, please provide those details here, addressing all of the metrics requested in table CC3.1a or CC3.1b (for an absolute or intensity target, respectively)

Our target is to reduce methane emissions by approximately 50% compared to our 2005 baseline. 2005 methane emissions were 2,176,943 mscf, and projected 2025 methane emissions are 987,061 mscf.

OG7.7b

If methane emissions were incorporated into targets reported in CC3 (but not detailed as a separate target), please indicate which target ID(s) incorporate methane emissions, and specify the portion of those targets that is comprised of methane

Target ID Abs1 - 5% of the overall target is comprised of methane (on a CO2e basis).

GHG Electric Generation reduction target: 11,771,907 tons CO2
Methane reduction target: 629,571.33 tons CO2e

OG7.7c

Please explain: (i) why you do not have a methane-specific emissions reduction target or do not incorporate methane into your targets reported in CC3; and (ii) forecast how your methane emissions will change over the next five years

Further Information

Module: Electric utilities

Page: EU0. Reference Dates

EU0.1

Please enter the dates for the periods for which you will be providing data. The years given as column headings in subsequent tables correspond to the "year ending" dates selected below. It is requested that you report emissions for: (i) the current reporting year; (ii) one other year of historical data (i.e. before the current reporting year); and, (iii) one year of forecasted data (beyond 2021 if possible).

Year ending	Date range
2016	Fri 01 Jan 2016 - Sat 31 Dec 2016
2015	Thu 01 Jan 2015 - Thu 31 Dec 2015
2025	Wed 01 Jan 2025 - Wed 31 Dec 2025

Further Information

Page: EU1. Global Totals by Year

EU1.1

In each column, please give a total figure for all the countries for which you will be providing data for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emission intensity (metric tonnes CO2e/MWh)
2016	3405	12063	10789412	0.8944
2015	3405	12143	10917907	0.8991
2025	2889	11615	7558755	0.6508

Further Information

The figures above include 100 MW of leased wind power.

Page: EU2. Individual Country Profiles - United States of America

EU2.1

Please select the energy sources/fuels that you use to generate electricity in this country

Coal - hard
Oil & gas (excluding CCGT)
CCGT
Hydro
Other renewables

EU2.1a

Coal - hard

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	2574	7897	9279859	1.1751
2015	2574	8465	9598893	1.1339
2025	1372	3312	3770326	1.1384

EU2.1b

Lignite

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)

EU2.1c

Oil & gas (excluding CCGT)

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	186	10	8121	0.8287
2015	186	30	25888	0.8572
2025	186	85	71182	0.8414

EU2.1d

CCGT

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	535	3835	1491097	0.3888
2015	535	3340	1289253	0.3860

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2025	1231	7943	3285484	0.4136

EU2.1e

Nuclear

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)

EU2.1f

Waste

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)

EU2.1g

Hydro

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
2016	10	40
2015	10	39
2025	10	39

EU2.1h

Other renewables

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)
2016	100	282
2015	100	269
2025	100	276

EU2.1i

Other

Please complete the following table for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)

EU2.1j

Solid biomass

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	0	0	0	0
2015	0	0	0	0
2025	0	0	0	0

EU2.1k

Total thermal including solid biomass

Please complete for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	3295	11742	10779077	0.918

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2015	3295	11835	10914034	0.9221
2025	2789	11340	7126992	0.6285

EU2.1l

Total figures for this country

Please enter total figures for this country for the "year ending" periods that you selected in answer to EU0.1

Year ending	Nameplate capacity (MW)	Production (GWh)	Absolute emissions (metric tonnes CO2e)	Emissions intensity (metric tonnes CO2e/MWh)
2016	3405	12063	10789412	0.8944
2015	3405	12143	10917907	0.8991
2025	2889	11615	7558755	0.6508

Further Information

Page: EU3. Renewable Electricity Sourcing Regulations

EU3.1

In certain countries, e.g. Italy, the UK, the USA, electricity suppliers are required by regulation to incorporate a certain amount of renewable electricity in their energy mix. Is your organization subject to such regulatory requirements?

No

EU3.1a

Please provide the scheme name, the regulatory obligation in terms of the percentage of renewable electricity sourced (both current and future obligations) and give your position in relation to meeting the required percentages

Scheme name	Current % obligation	Future % obligation	Date of future obligation	Position in relation to meeting obligations

Further Information

Page: EU4. Renewable Electricity Development

EU4.1

Please give the contribution of renewable electricity to your organization's EBITDA (Earnings Before Interest, Tax, Depreciation and Amortization) in the current reporting year in either monetary terms or as a percentage

Please give:	Monetary figure	%	Comment
Renewable electricity's contribution to EBITDA			NIPSCO Power Purchase Agreements (PPAs) - Barton and Buffalo Ridge Wind: NIPSCO is currently engaged in a 20-year PPA with Iberdola, in which NIPSCO will purchase generation from Barton. Barton, located in Worth County, Iowa went into commercial operation on April 10, 2009. The total net output from Barton is 50 MW. NIPSCO is also engaged in a 15-year PPA with Iberdola, in which NIPSCO will purchase generation from Buffalo Ridge. Buffalo Ridge, located in Brookings County South Dakota, went into commercial operation on April 15, 2009. The total net output of Buffalo Ridge is 50.4 MW. In 2016, NIPSCO purchased 282 GWh of wind energy from the two wind farms. In addition to the renewable wind energy purchased by NIPSCO, the company is continuing three popular customer programs that encourage the use of renewable resources. These include the Feed-In Tariff, Net Metering and Green Power programs. The Green Power program allows electric customers to pay a premium, approximately $2 per month for the average home, and designate 25, 50 or 100 percent of their monthly electric usage to be attributed to renewable energy sources. Nearly 930 homes and businesses are enrolled in the program. The Feed-In Tariff and Net Metering programs promote renewable electric generation by allowing customers to generate their own electricity via renewable resources. Between the two programs, over 358,000 megawatt hours have been generated by renewable sources since 2011 -- over 107,000 megawatt hours in 2016 alone.

EU4.2

Please give the projected contribution of renewable electricity to your organization's EBITDA at a given point in the future in either monetary terms or as a percentage

Please give:	Monetary figure	%	Year ending	Comment
Renewable electricity's contribution to EBITDA				

EU4.3

Please give the capital expenditure (capex) planned for the development of renewable electricity capacity in monetary terms and as a percentage of total capex planned for power generation in the current capex plan

Please give:	Monetary figure	%	End year of capex plan	Comment
Capex planned for renewable electricity development				

Further Information

CDP