

ENABLING CANADA'S LIQUEFIED NATURAL GAS INDUSTRY: GLOBAL EMISSIONS REDUCTION BENEFITS



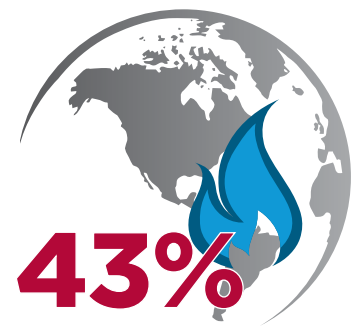
Climate change is an important global issue, requiring action across industries and across borders. Climate change cannot be tackled by individual countries, but must be approached from a global perspective, with nations working together to reduce global net greenhouse gas (GHG) emissions, not individual country emissions.

Access to energy is essential. Globally one billion people live without electricity and three billion people use fuels like wood or biomass to cook, impacting their health and quality of life (Source: World Bank 2018). The International Energy Agency (IEA) reinforces that fossil fuels – specifically oil and natural gas – remain the dominant sources for meeting the world's growing energy demand in the foreseeable future.

According to the IEA *World Energy Outlook 2018*, by 2040 global demand for natural gas will increase 43 per cent over 2017 levels, replacing coal as the world's second-largest energy source. Falling consumption of coal in the European Union and United States will be balanced by rising demand in India and Southeast Asia, resulting in just a five-per-cent-decrease in 2040 demand over 2017 levels. China will become the world's leading importer of liquefied natural gas (LNG) if they can replace coal with natural gas.

Canada has an abundant natural gas resource that is estimated to be 1,220 trillion cubic feet; enough to serve current markets for 300 years while growing to meet emerging demand worldwide. Natural gas from Canadian LNG has lower life cycle emissions than coal, and Canadian LNG facilities will have lower emissions intensity than LNG produced anywhere in the world. Canada has strong environmental performance and has a track record of continuous improvement and technology development.

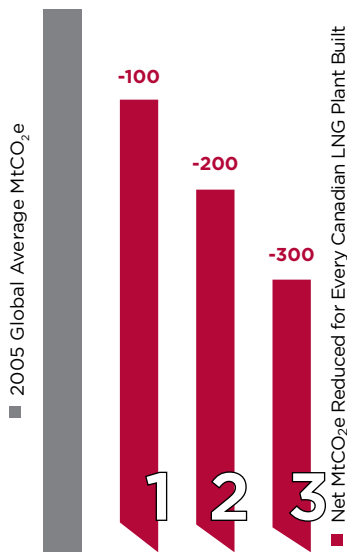
By the mid-2020s, growing global markets for LNG are expected to require additional liquefaction capacity beyond that which is currently in place or under construction. Canada's significant natural gas resources can help meet global demand and reduce global GHG emissions by displacing coal-fired electricity generation in Asia.



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FOR EVERY LNG FACILITY BUILT IN CANADA, GLOBAL EMISSIONS ARE REDUCED BY **100 MtCO₂e** PER YEAR.



CANADA MUST LOOK BEYOND OUR BORDERS TO TAKE A GLOBAL PERSPECTIVE ON EMISSIONS REDUCTION.

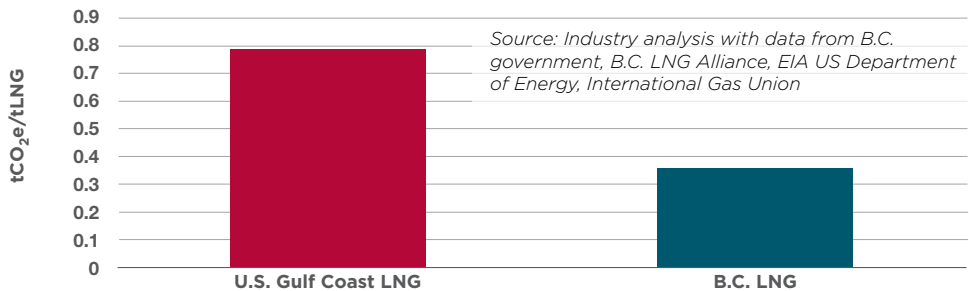
CANADA'S OPPORTUNITY

Canada has an opportunity to capitalize on the coming growth for LNG and reduce global GHG emissions by displacing coal-fired electricity generation in China, India and Southeast Asia.

Estimates show by 2040, about 1,500 megatonnes of carbon dioxide equivalent (MtCO₂e) emissions could be eliminated every year if new power plants in China, India and Southeast Asia are fuelled by natural gas instead of coal. These reductions are contingent on approximately 375 megatonnes of LNG annually displacing coal electricity generation. This estimate was based upon a CAPP internal study using the Pace Global 2015 report for life cycle GHG intensities of both coal and LNG.

Canadian GHG emissions intensity from LNG facilities is expected to be uniquely low, due to strong regulations and an opportunity to electrify the upstream. Eliminating upstream combustion emissions via electrification, made possible by connecting to a lower-emissions electricity system, could reduce the upstream carbon intensity by approximately half. There are opportunities for industry and governments to examine LNG upstream natural gas electrification opportunities in more detail, taking into consideration the need to address both economic risks, infrastructure constraints and possible funding mechanisms.

Canadian LNG: Less Carbon Intense



The total net global GHG reduction from each Canadian LNG plant is expected to be approximately 100 MtCO₂e per year.

CANADA MUST RECEIVE APPROPRIATE CREDIT FOR OUR CONTRIBUTION TO GLOBAL EMISSIONS REDUCTION

Canada can help reduce net global emissions with our lower emissions intensity LNG as the principal supplier to global markets. These emissions reductions must be recognized both domestically and internationally and contribute to our commitment under the Paris Agreement. Canada must acquire offset credits.

Article 6 of the Paris Agreement must enable countries to share offset credits – called Internationally Transferable Mitigation Outcomes (ITMOs) – from another country. This was debated for more than two weeks of negotiation at COP 24 in December 2018 but participants failed to finalize the chapter governing Article 6. Negotiators struggled with a host of issues, including how to account for ITMOs among diverse policy types. Draft decisions were carried over to COP 25 in 2019, with a new deadline of finalizing them at that time. While understanding this is a complex issue, it is essential these rules are in place following COP 25 in 2019.

Canada must look beyond our borders to take a global perspective on emissions reduction. To encourage international partnership and adoption of the rules, Article 6 must guarantee ITMOs be split between participating nations as an option that enables the shift from coal to natural gas use, and results in a net reduction in global emissions.

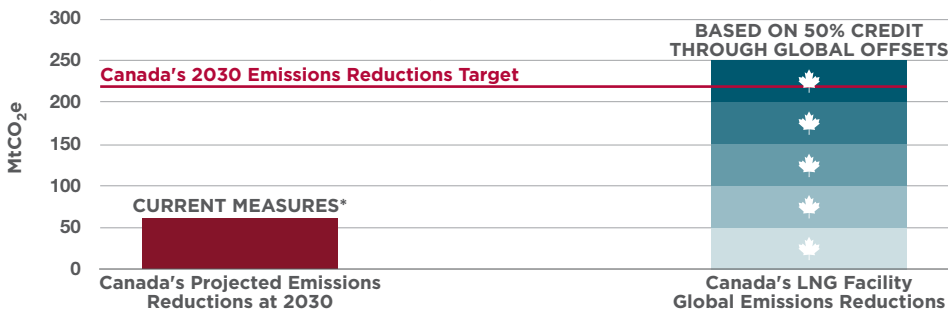
Recognizing ITMOs would be beneficial for Canada in two ways:

- Through global offset credits, Canada could still achieve its commitments under the Paris Agreement, instead of implementing costly measures that inefficiently focus on domestic emissions reduction.
- Canada can grow our natural gas and LNG industries to meet global market demand while helping to reduce global emissions and create economic and other benefits across the country.

Canada must take a leadership role and finalize these negotiations so Canadians receive the benefit we deserve for our contribution to reducing net global emissions.

Canadian LNG Facilities Can Help Canada Achieve National Emissions Targets, and Global Emissions Reductions

**Canada's GHG and Air Pollutant Emissions Projections - 2018, Government of Canada*



THE GOVERNMENT OF CANADA MUST TAKE A LEADERSHIP ROLE

To realize Canada's potential contribution to net global emissions reduction, and to ensure continued growth of Canada's natural gas and LNG industries the Government of Canada must take a long-term, global view regarding climate policy and:

- Under Article 6 of the Paris Agreement, ITMOs must be split between participating nations.
- Enable the shift from coal to natural gas as a meaningful opportunity that qualifies under Article 6 to reduce global emissions.
- Advance development of an LNG industry on Canada's West Coast, with multiple LNG plants that can meet demand in global markets.
- Promote Canadian LNG as the world's lowest emissions intensity LNG supply, which can contribute to net global emissions reduction if used to generate electricity in China, India and Southeast Asia.



IF CANADA RECEIVED 50% CREDIT ON GLOBAL OFFSETS, **FIVE CANADIAN LNG FACILITIES WOULD MEET OR EXCEED OUR COMMITMENT** UNDER THE PARIS AGREEMENT.

Source: CAPP



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INFORMATION:

CANADIAN ASSOCIATION
OF PETROLEUM
PRODUCERS (CAPP)

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THE CANADIAN ASSOCIATION OF PETROLEUM PRODUCERS (CAPP)

CAPP represents companies, large and small, that explore for, develop and produce natural gas and crude oil throughout Canada. CAPP's member companies produce about 80 per cent of Canada's natural gas and crude oil. CAPP's associate members provide a wide range of services that support the upstream crude oil and natural gas industry. Together CAPP's members and associate members are an important part of a national industry with revenues from crude oil and natural gas production of about \$101 billion a year. CAPP's mission, on behalf of the Canadian upstream crude oil and natural gas industry, is to advocate for and enable economic competitiveness and safe, environmentally and socially responsible performance.