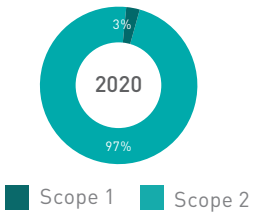
2.2.2 Scope 1 Emissions

TGS is an office-based company that does not operate or own vessels, manufacturing plants or factories. Nevertheless, TGS is committed to working towards understanding the energy consumption and greenhouse gas emissions in its operations and finding ways to reduce its impact. TGS' Scope 1 emissions are not material to our overall emissions (less than 3% of our combined CO2e emissions for Scope 1 and 2). These emissions are related to two vehicles maintained by the company for local deliveries in Houston and Oslo and the natural gas used to heat the office building TGS owned in Bedford prior to it being sold in the summer of 2020. The drop in Scope 1 emissions is due to the impact of COVID-19 moving our operations remote for a significant portion of the year and many of our deliveries being through other means, such as electronic or courier.

Scope 1 Emissions	2020	2019 [1]	2018
CO_2e (mt)	385	629	719
CO_2 (mt)	384	628	659
CH_4 (kg)	514	841	841
N_2O (kg)	203	320	321

TGS Scope 1 and 2 Emissions



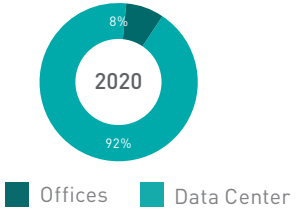
[1] As part of our commitment to becoming net zero by 2030 in our Scope 1 and 2 emissions using science-based targets on emissions reductions, we are undergoing a thorough, third-party review of our emissions data categories and reporting processes with the aim of increasing transparency and identifying gaps in our current reporting. Through this review process, we have identified the exclusion of the natural gas used to heat our Bedford office in our 2019 Scope 1 emissions reporting, which has been corrected above.

2.2.3 Scope 2 Emissions

Energy usage in our offices and data centers make up TGS' Scope 2 emissions. Energy consumption for data processing and high-performance computing are responsible for the bulk of the emissions related to the generation of purchased energy (Scope 2), with our Houston data center comprising of 90% of our 2020 data center emissions.

TGS' offices saw a reduction in emissions in 2020, due in large part to the remote working environment created by the COVID-19 pandemic. The Company, however, continues to also look for ways to ensure its offices are more energy-efficient. Our Norway office operates entirely on renewable energy provided by hydropower, and TGS is looking for ways to improve the energy efficiencies in its other offices through utilizing more energy-efficient equipment or purchasing renewable energy sources to power all or part of the office. In 2020, TGS designed its new offices in the UK with energy efficiency in mind by using LED lighting throughout the space, upgrading the HVAC systems to more efficient models and installing a new ventilation system. In 2021, TGS will continue to explore ways to utilize renewable power sources for our offices or otherwise offset emissions.

TGS Scope 2 Emissions

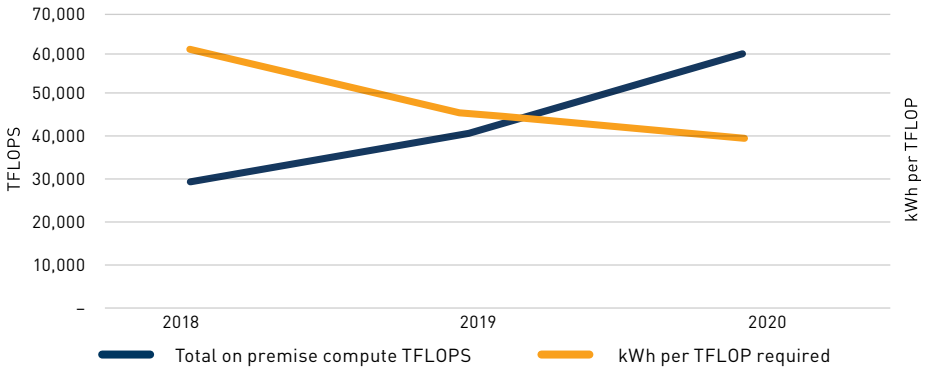


Scope 2 Emissions	2020 (kWh)	2019 (kWh)	2018 (kWh)	2020 (CO_2e mt)	2019 (CO_2e mt)	2018 (CO_2e mt) [2]
Offices	2,907,746	4,284,513	4,380,081	1,026	1,544	1,026
Data Centers	30,284,307	25,694,549	21,676,330	12,557	10,662	9,506
Total	**33,192,071**	**29,979,062**	**26,056,411**	**13,586**	**12,207**	**10,770**

[2] Through the review process described in the above footnote, we have identified inaccuracies in the calculation of CO2e for our Scope 2 emissions which will result in a restatement of our 2018 and 2019 Scope 2 CO2e emissions. These updated calculations are now based upon the Carbon Footprint Country Specific Electricity Grid Greenhouse Gas Emissions Factors (last updated September 2020) for non-US locations and the U.S. Environmental Protection Agency's Center for Corporate Climate Leadership Greenhouse Gas Inventory Guidance Documents and Emissions Factors Hub for US locations (last updated August 2020).

TGS is also finding ways to ensure our data processing and high-performance computers are energy efficient and sustainable. The Company spent a good deal of 2020-2021 centralizing its datacenter footprints, closing smaller less efficient facilities, and focusing on our Houston-based facility and partnership with Google Cloud, while also retiring older and less efficient systems wherever possible. Through our partnership with Google Cloud, TGS performed approximately 25% of our 2020 workload in Google's carbon neutral data centers. Further, while our on-premise computing capabilities increased in 2020 by 50%, our on-premise power consumption only increased by 27% due to the proactive steps TGS implemented to reduce emissions. TGS' latest generation of compute provides a 78% power efficiency improvement over the last generations. In tandem with our data center provider, TGS utilized fluid mechanics and heat maps to minimize hot spots and to assist in proper hot and cold row containment strategies. Further, TGS moved away from the traditional "set it and forget it" datacenter air conditioning practices and switched to a modern adaptive system that reads return air temperatures throughout the facility and applies additional cooling when necessary to meet the needs of an active HPC cluster. The following chart illustrates the growth in on-premise compute capability

measured in teraflops (TFLOPS) from 2018-2020 (left axis). The right axis shows a decrease in the amount of kWh required to run 1 teraflop for a year. As the graph portrays, TGS is becoming more energy efficient in our compute capabilities at our on-premise data centers.



* A FLOPS is a single Floating (FL) point Operation (OP) per Second (S) that is a measure of useful compute performance. A teraflop would then be 10^12th or one trillion floating point operations per second.

2.2.4 Operations Emissions (Scope 3)

In 2019, TGS began tracking Scope 3 emissions generated through our seismic operations as a result of our contractors providing a variety of field services via vessels, land crews and their equipment, and aircrafts for the acquisition of seismic data. Tracking, reporting and developing a strategy to reduce and/or offset these emissions is a critical part of both TGS' and the industry's sustainability strategy. As one of the largest buyers of seismic acquisition capacity, TGS has a unique opportunity to influence the industry in a positive manner, but our strategy requires coordination with our contractors, who own or operate the vessels, onshore equipment or aircraft for TGS' subsurface operations.

In 2020, TGS continued to build on its ongoing efforts towards collecting and deriving Scope 3 carbon emission figures by contractually requiring all marine seismic contractors to report their carbon emissions to TGS, including information on the specific gases that should be reported, and the timeframe for reporting these to TGS. This reporting requirement will be expanded in 2021 to include all onshore seismic contractors in TGS onshore operations. TGS also joined the IAGC's working group to define and create industry standards and guidance on carbon emission recording and reporting.

As illustrated in the following charts and graphics, the type of survey and field operations directly impacts the carbon emissions of a project, which are largely based upon the fuel consumed during the operation. For marine operations, which account for the bulk of TGS' 2020 Scope 3 emissions, seismic projects are categorized as being either 2D, 3D, nodal or multibeam/coring. 2D and multibeam/coring surveys are acquired with relatively smaller vessels towing less in-sea equipment, resulting in a lower carbon footprint than 3D or nodal seismic surveys which require a combination of larger vessels and more in-sea equipment. Other factors that can impact the fuel consumption of a marine survey include weather and sea state, ocean currents, fuel type, survey design, transit time during mobilization periods, and the type and amount of in-sea seismic equipment being towed.

For land acquisition, carbon emissions are dependent on several factors, including the size of the survey, the equipment and vehicles in use, the local environment and geography, and use of helicopters to transport equipment, scout the survey area or engage in portable heli-drilling. A 3D land survey involves laying out a patch of data recording nodes in the ground and using seismic vibrators or other conventional seismic sources to generate a 3D cube of subsurface data. In 2020, TGS also conducted an airborne survey, the Horus-I eFTG survey, in which data is acquired over a predefined grid of flight lines by using a dual propeller aircraft with specialized recording equipment onboard.

2020 Survey Emissions

	CO_2e (mt)	CO_2 (mt)	CH_4 (mt)	N_2O (mt)
Subtotal Marine Seismic	140,563	138,103	4.21	6.78
Subtotal Land Seismic	6,366	6,276	0.20	0.29
Subtotal Airborne Seismic	346	342	0.00	0.01
Grand Total All Seismic	**147,275**	**145,102.85**	**4.41**	**7.08**