

## Leading Health and Safety Indicators

In 2019, the targets set for carrying out safety visits (annual program) as well as for the reporting and investigation of near misses were achieved, which are basic leading indicators for H&S performance across all Group facilities.

In the context of consolidating a common Safety Culture at all Group facilities, basic H&S training continued (which included fire safety, first aid, rescue techniques, basic safety procedures, best practices, etc.). Training extends to external partners' contractors, visitors, tank truck drivers and service station operators in accredited training centers.

It is important to highlight that in 2019, training time of own staff and contractors increased by 10% in relation to the previous year (approximately 60,000 training labor-hours).



## Environment and Climate Change

The HELLENIC PETROLEUM Group, as an energy products producer and at the same time a significant energy consumer, faces significant challenges in the energy sector with regards to climate change. Specifically, by implementing its sustainable development strategy, the Group seeks to achieve short and long-term goals to improve energy efficiency and reduce greenhouse gas emissions in accordance with the relevant United Nation's Sustainable Development Goals for Clean Energy (SDG 7) and for the Climate (SDG 13).

The Group has published targets, including the reduction of its carbon footprint by at least 500,000 tons CO<sub>2</sub> by 2025 through investments in energy efficiency improvements in the Group's production facilities and in Renewable Energy Sources (RES) as well as, the reduction of the CO<sub>2</sub>/tn crude oil throughput index by 5% until 2020, with 2014 being the baseline reference year for comparison at the Group's refineries. More recently, it has set itself the goal of improving its total carbon footprint by 50% until 2030.

The Group is constantly improving its operations and reducing its environmental and carbon footprint, with the following key objectives:

- Continuous improvement of environmental performance for water, air and soil protection.
- Increasing energy efficiency and optimal use of natural resources, based on the principles of sustainable consumption and production.
- Reduction of greenhouse gas (GHG) emissions, to address climate change.

In addition, it strictly implements its environmental policy, to which all of its staff are bound to and is integrated into all of its activities.

The environmental policy is implemented through of a range of tools such as setting goals for each activity, monitoring all environmental parameters and benchmarking with European industry's performance, continuous environmental training of staff and stakeholders and the implementation and certification of environmental management systems in the wide range of the Group's activities.

The Group aims to reduce both greenhouse gas emissions and waste through specific actions, such as maximizing the use of fuel gases, using higher environmental fuel standards and applying advanced technologies in the production process.



# 100,000

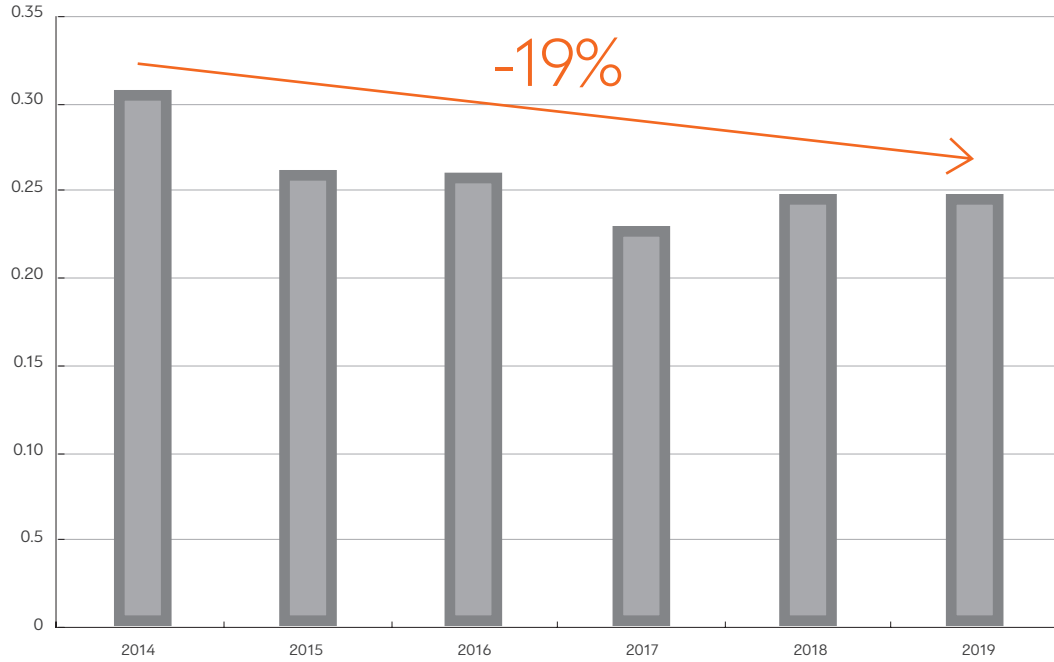
CO<sub>2</sub> emissions avoidance from RES  
corresponds to over 100,000 cars per year  
out of circulation in Greece

Actions to improve the environmental footprint continued in 2019. In order to comply with the new emission levels associated with Best Available Techniques, such actions are gradually being incorporated in the new environmental permit decisions for the operation of the Aspropyrgos refinery (completed in 2019), Elefsina and Thessaloniki refineries (due in 2020) according to European Directive 2010/75 on industrial emissions (IED). These actions include projects such as the installation of low NO<sub>x</sub> burners, particulate filters and volatile organic compound recovery units.

With regard to liquid and solid waste management and in line with circular economy principles and the UN Goal for Responsible Consumption and Production (SDG 12), the primary objective is to reduce waste production at source, maximize recycling and reuse in the production process for as many waste streams as possible; and then manage them in the best possible way with regard to the environment and human health. The target is to significantly reduce waste for final disposal and stabilize it at a maximum of 15% by 2030.

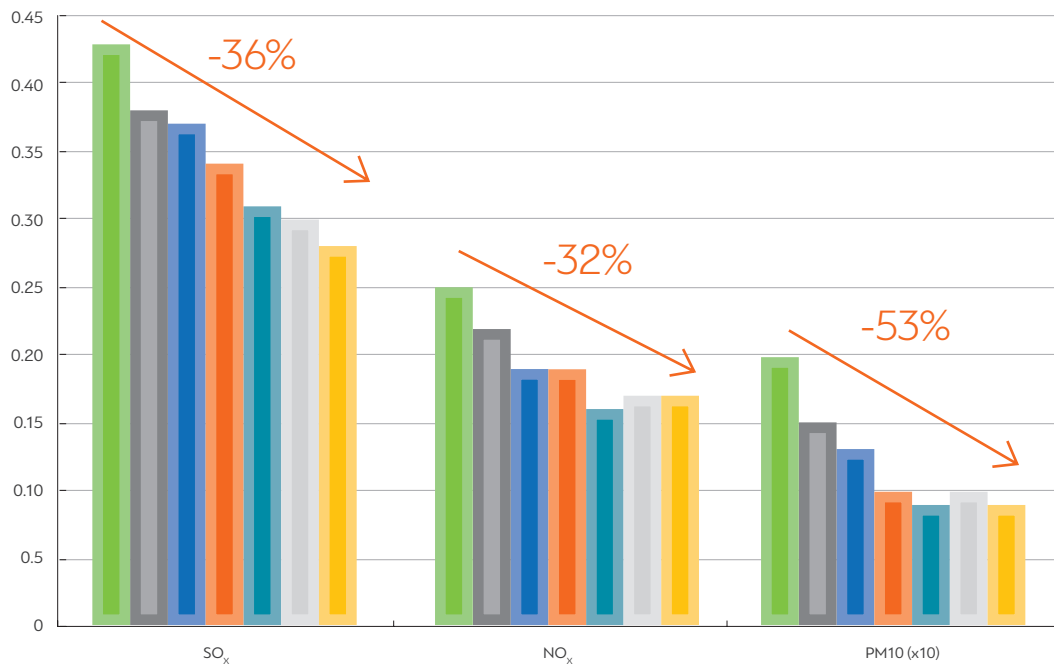
Note that, in 2019, the total CO<sub>2</sub> emissions avoided from RES, reached approximately 160,000 tons of CO<sub>2</sub>, which corresponds to over 100,000 cars out of circulation in Greece. In the same time, the CO<sub>2</sub> emissions /tn crude oil throughput index has been declining by 19% overall since 2014 (baseline year for HELPE refineries) and is exceeding the initial target for 5% reduction which was set for 2020.

CO<sub>2</sub>/tn of Crude feed Emission Index\*

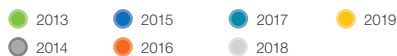


\*data from the first year of comparable levels of HELPE refinery operation

Air Emissions (in tons/throughput)



\*the PM indicator is multiplied by 10 so that it can be better presented





## up to 50% reduction of PM emissions over the six-year period

In addition, in the Group's three refineries, the trend from the last 6 years continued, with the indices for the most important air emissions for the industry sector (sulfur oxides -  $SO_x$ , nitrogen oxides -  $NO_x$  and particles - PM/kg emissions per tn supply) steadily improving, reflecting the results of applied environmental management systems and programs for environmental performance improvement.

The Group's three refineries in Greece participate in the European GHG Emissions Trading System (EU-ETS). For the period 2013-2020 (3<sup>rd</sup> phase of EU ETS), the compliance cost has increased significantly, despite energy saving projects, due to the reduced number of free allowances allocated from year to year, as well as the significant increase in the price of EU allowances units (EUAs) in the last two years (over 200%). The verified  $CO_2$  emissions from the three refineries for 2019 amounted to 3,360,000 tons.

As part of the preparation to participate in the 4<sup>th</sup> phase of EU ETS, in 2019 the refineries submitted all the verified activity data for the previous years (2014-2018) to the competent national authority (Ministry of Environment and Energy). This data will be used to calculate the relevant emissions intensity index for the industry on a European level (benchmarking), on the basis of which, free allowances for the 1<sup>st</sup> sub-period 2021-2025 will be allocated.

Following recent European developments with the launch announcement of a new, more ambitious European Green Deal, as well as the EU-ETS revised measures already in place for the period 2021-2030 (i.e. implementation of a Market Stability Reserve mechanism), an additional increase in the  $CO_2$  emissions price (€/tn) is expected. This will affect future compliance costs both directly and indirectly, through electricity consumption and intensifying European companies' competitive disadvantage compared to non-EU counterparts, which do not face the same environmental compliance costs.

Since 2016, the Group has adopted the Greek Sustainability Code whilst also being actively involved in the Sustainability Dialogue, via initiatives and investments in the context of 17 UNSDGs for 2030. In 2019, the Group participated, for the second year in the evaluation for its overall management of climate change issues by the international organization CDP (previously Carbon Disclosure Project) and was rated B-, above the average for the Oil and Gas sector on a global level.