

# OR Annual report 2022

## Appendices



GHG emission goals 2016-2030 and the achievement towards the goals



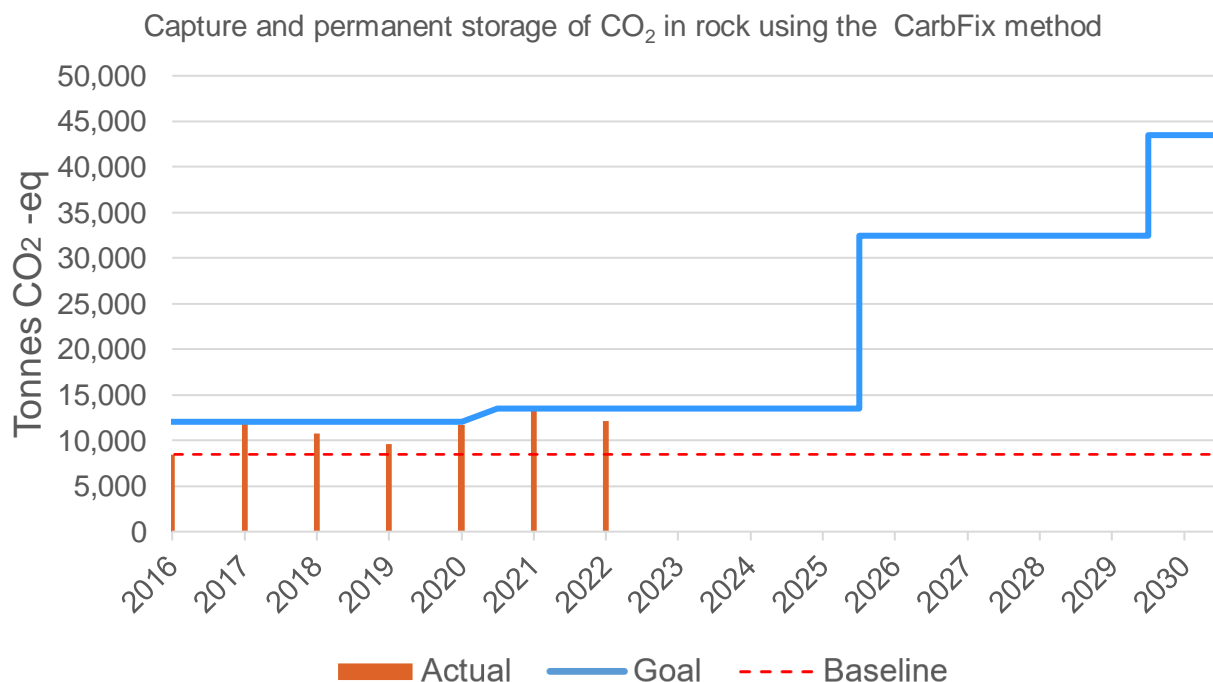
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Cover photo: Belinda Eir Engilbertsdóttir

## Capture and permanent storage of CO<sub>2</sub> in rock using the Carbfix method at Hellisheidi power plant (ON Power)

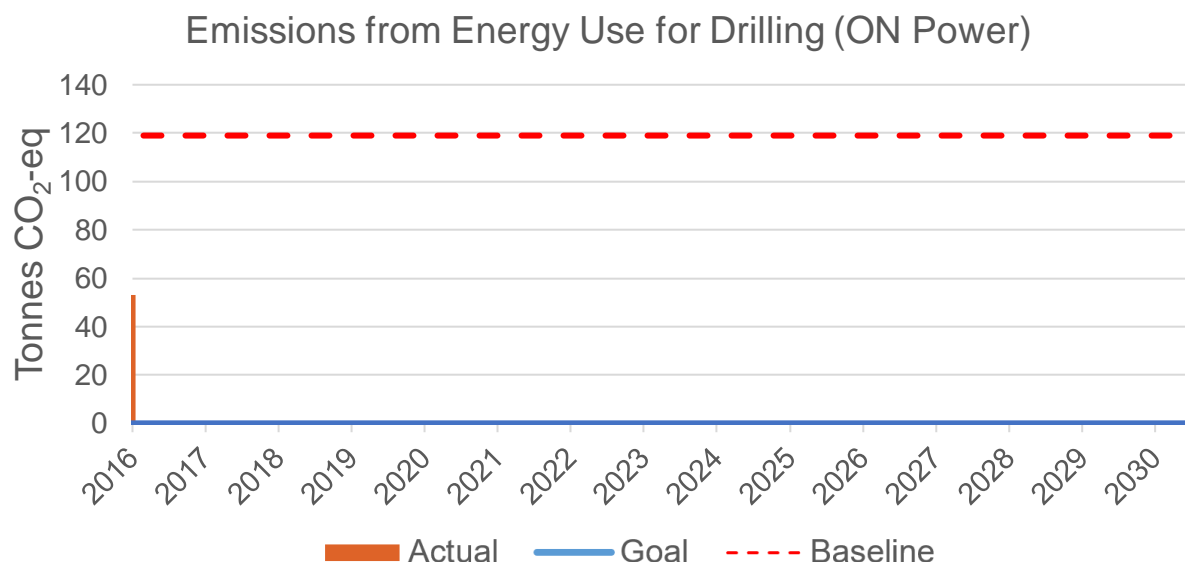
The graph below displays the goals 2016 – 2030 as well as the actual estimated amount of CO<sub>2</sub> sequestered into rocks to achieve these goals. In 2022 the permanent storage was close to the goal. Out of the total emissions coming from Hellisheidi, 26% of these emissions were reinjected in 2022, the ratio was 29% in 2021. The aim is to increase re-injection with the Carbfix method at the Hellisheidi Geothermal Power Plant in 2025 and at the Nesjavellir Geothermal Power Plant in 2030 as a part of making the operations carbon neutral.



## Emissions due to Drilling (ON Power)

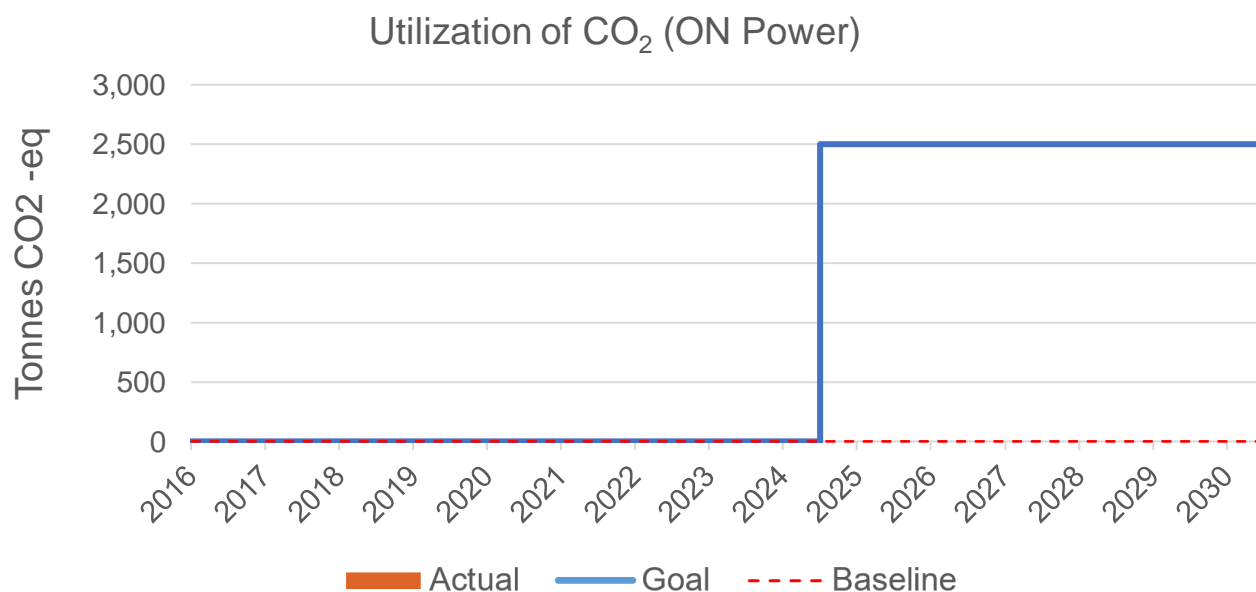
The graph below displays the goals and estimated actual emissions coming from ON Power's drilling operations in Hellisheiði and Nesjavellir between 2016 – 2030 and achievement towards this goal. In 2016, the goal was set so that all high-temperature and reinjection well drilling would be powered by electricity from ON Power. As a result, all electricity emissions from the electricity used during the drilling process fall under Scope 1.

Since 2017, the goal has been met.



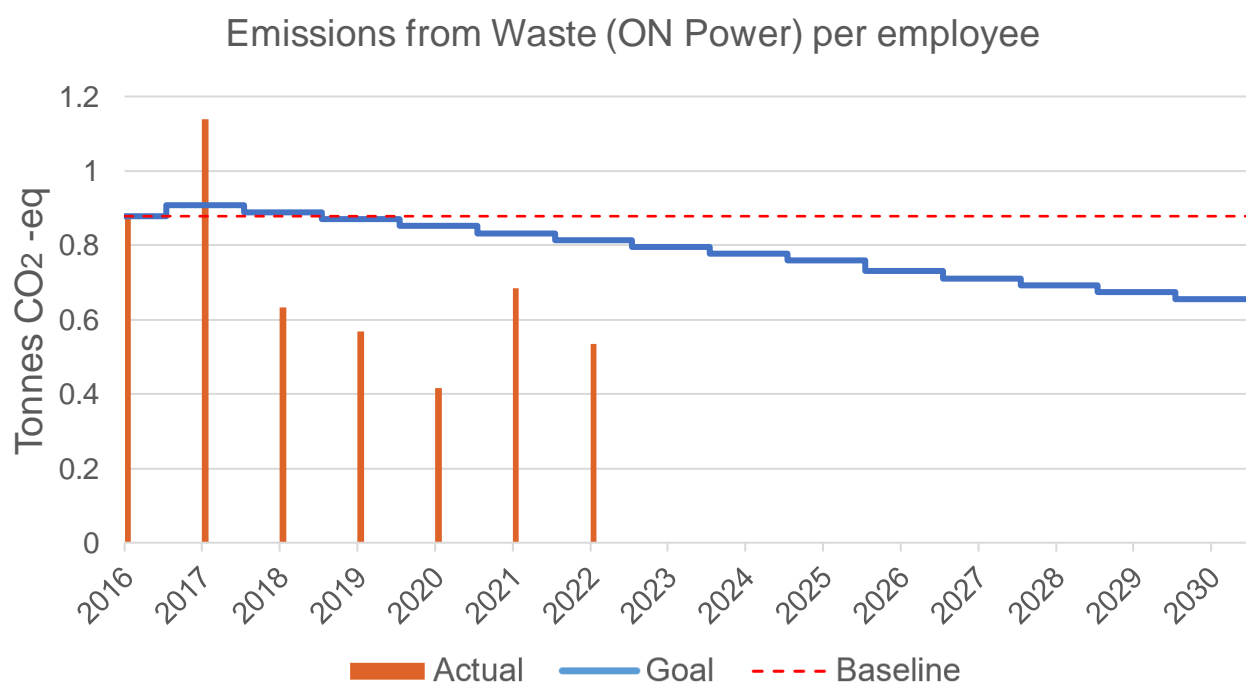
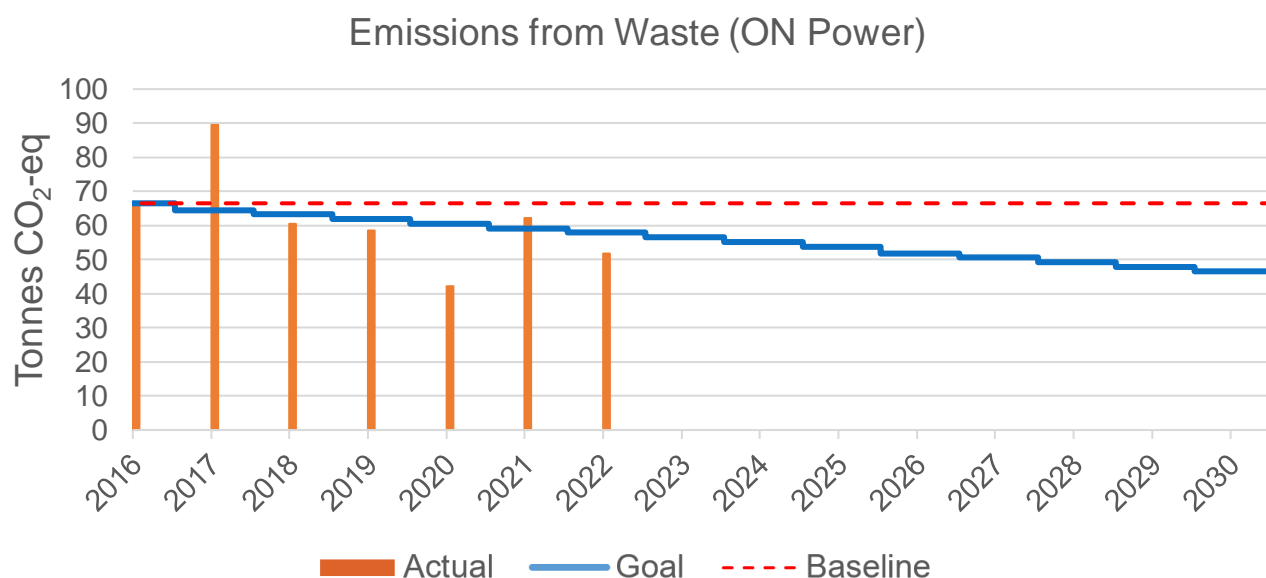
## Utilization of CO<sub>2</sub> from the Hellisheidi Power Plant in the Geothermal Park (ON Power)

The graph shows the goals of ON Power to utilize CO<sub>2</sub> within the Geothermal Park between 2018 - 2030 and ON Power's progress towards this goal. Utilization of CO<sub>2</sub> is still in preparation and development.



## Emissions from Waste (ON Power)

The graphs below display the goals and estimates of actual emissions from waste coming from ON Power's operations 2016 – 2030 and the achievement towards the goals. The goal was not met in 2022. Emissions from waste are calculated according to the category of waste (e.g. general waste, paper, plastic, etc.), the quantity of this category, and an estimate of how this waste is treated (e.g. landfilled vs. recycled). The emission factors for these different treatment options and waste categories are derived from the U.K. Energy Agency\*.

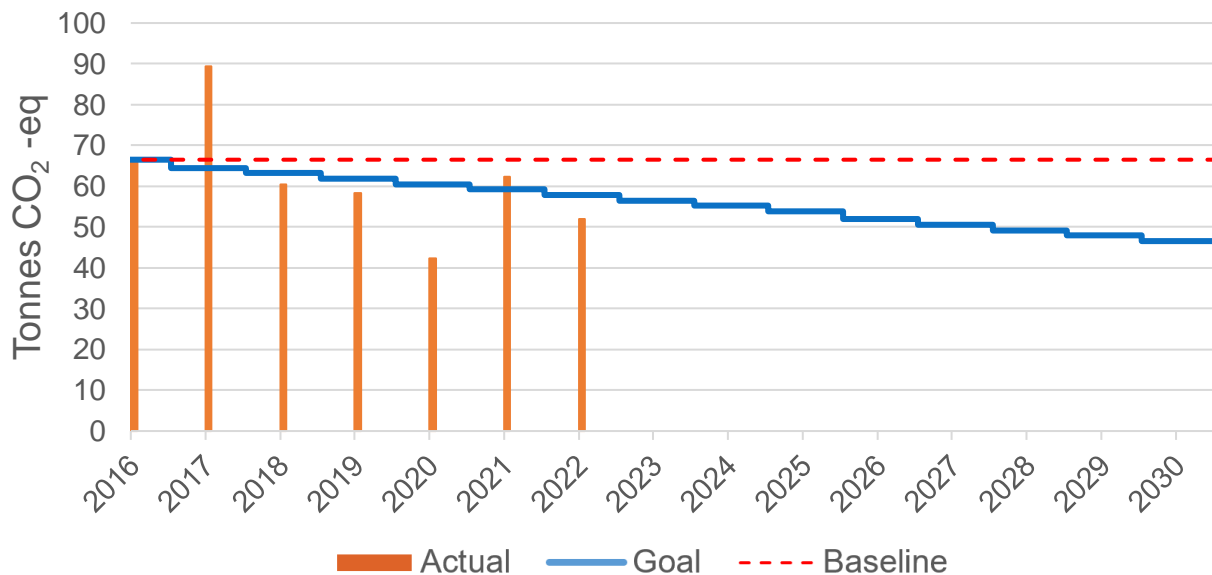


\*U.K. Department for Business, Energy & Industrial Strategy. "2022 Government GHG Conversion Factors for Company Reporting". August 2022

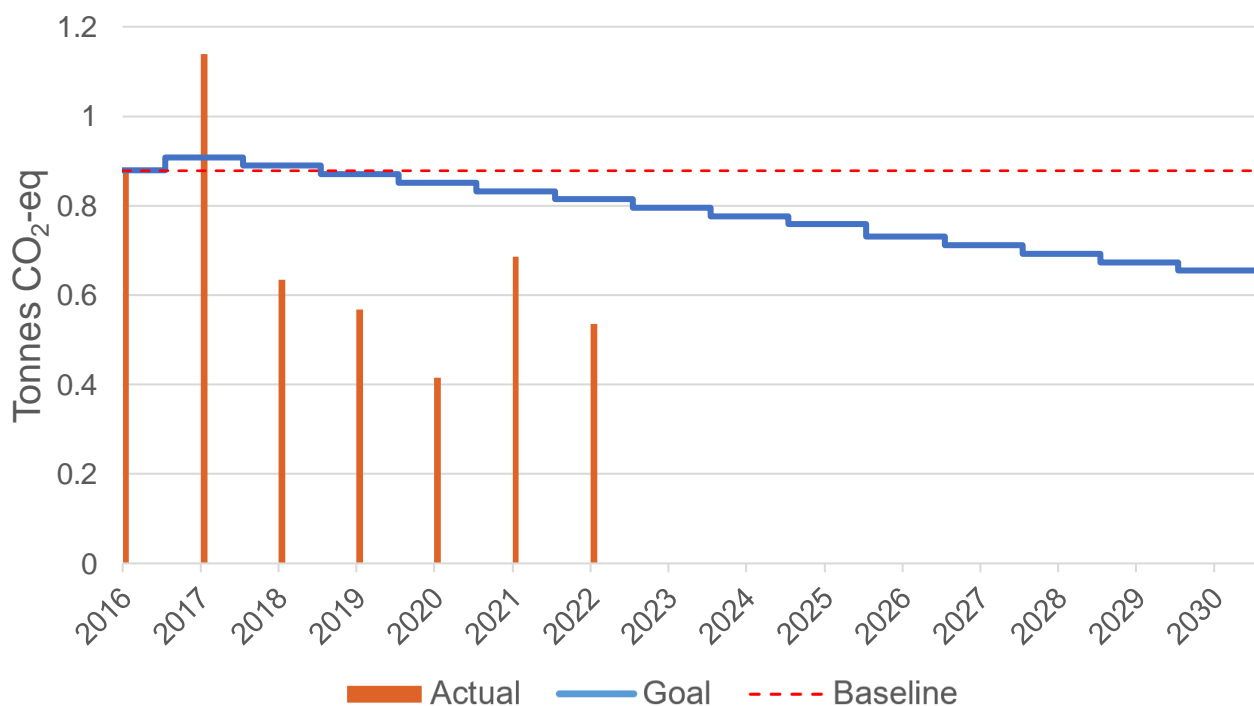
## Emissions from Waste (Veitur Utilities)

The graphs below display the goals and estimated actual emissions from waste coming from Veitur Utilities' operations 2016 – 2030 and the level of achievement towards these goals. In 2022, the goals were not met. Emissions from waste are calculated according to the category of waste (e.g. general waste, paper, plastic, etc.), the quantity of this category, and an estimate of how this waste is treated (e.g. landfilled vs. recycled). The emission factors for these different treatment options and waste categories are derived from the U.K. Energy Agency\*.

Emissions from waste (Veitur)



Emissions from waste per employee (Veitur)

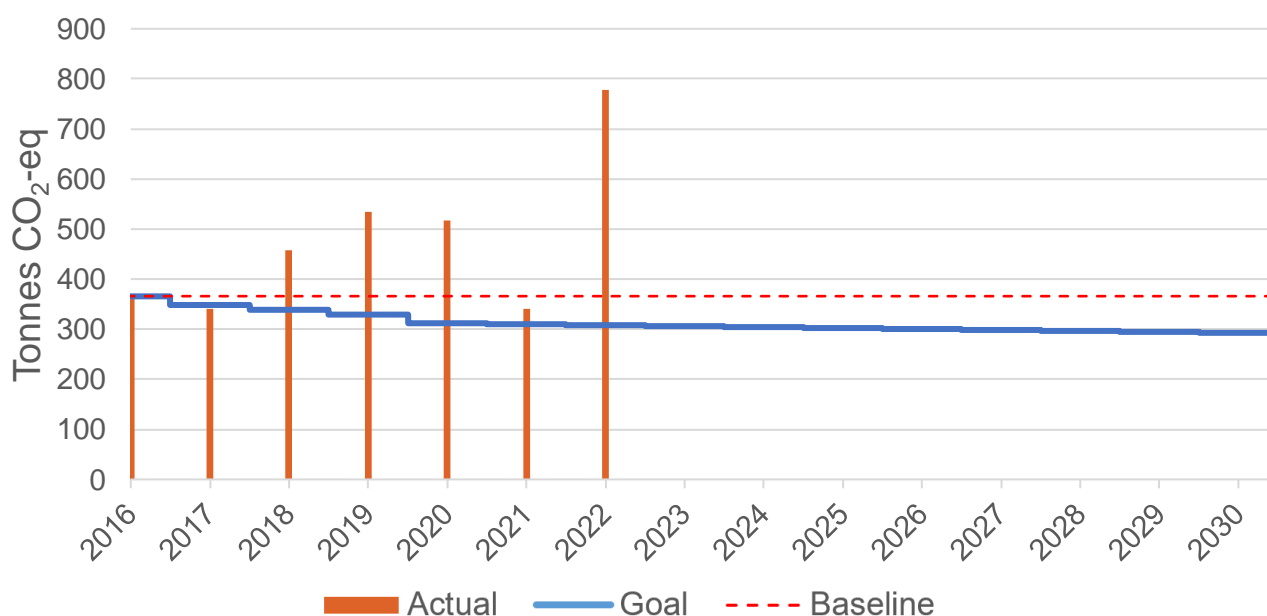


\*U.K. Department for Business, Energy & Industrial Strategy. "2022 Government GHG Conversion Factors for Company Reporting". August 2022

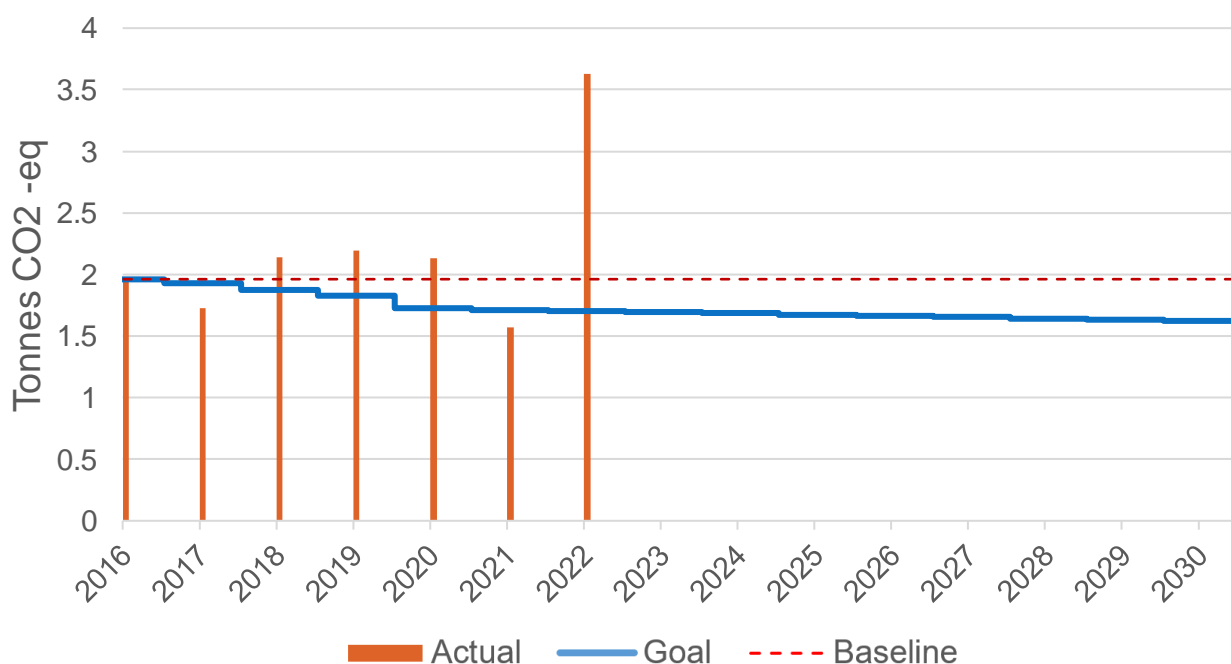
## Emissions from Construction and Maintenance (Veitur Utilities)

The graphs below display the goals of Veitur Utilities to measure and reduce greenhouse gas (GHG) emissions due to new construction and maintenance projects from 2016-2030 and the achievement towards these goals. In 2022 the emission goals were achieved. The measurements are based on estimates on emissions coming from Veitur Utilities' installation of pipelines, maintenance, cutting and new constructions.

Emissions from construction and maintenance



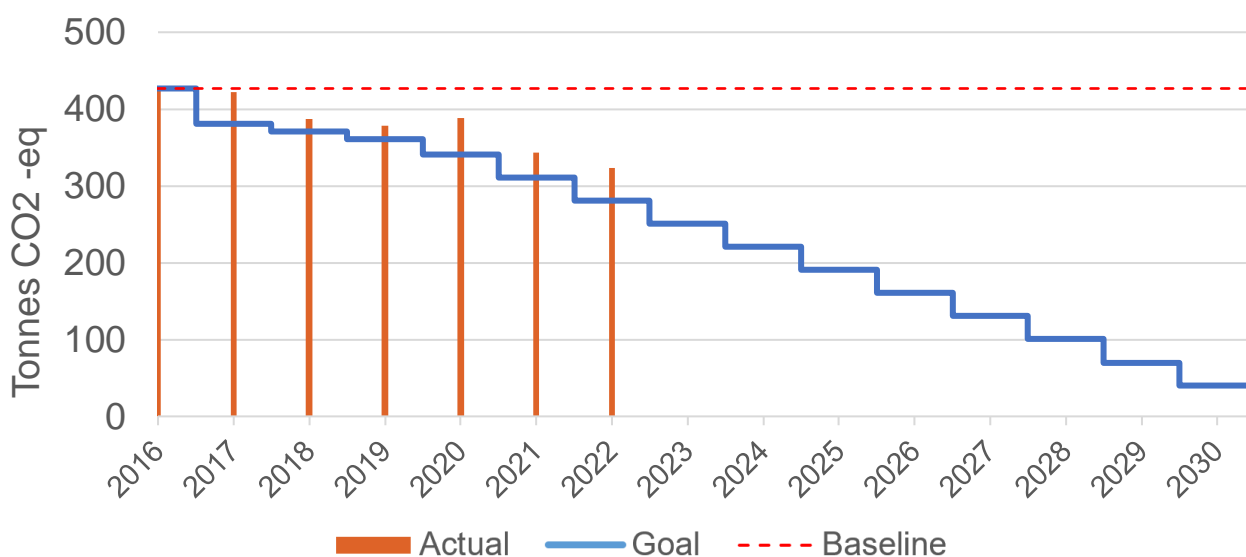
Emissions from construction and maintenance per employee



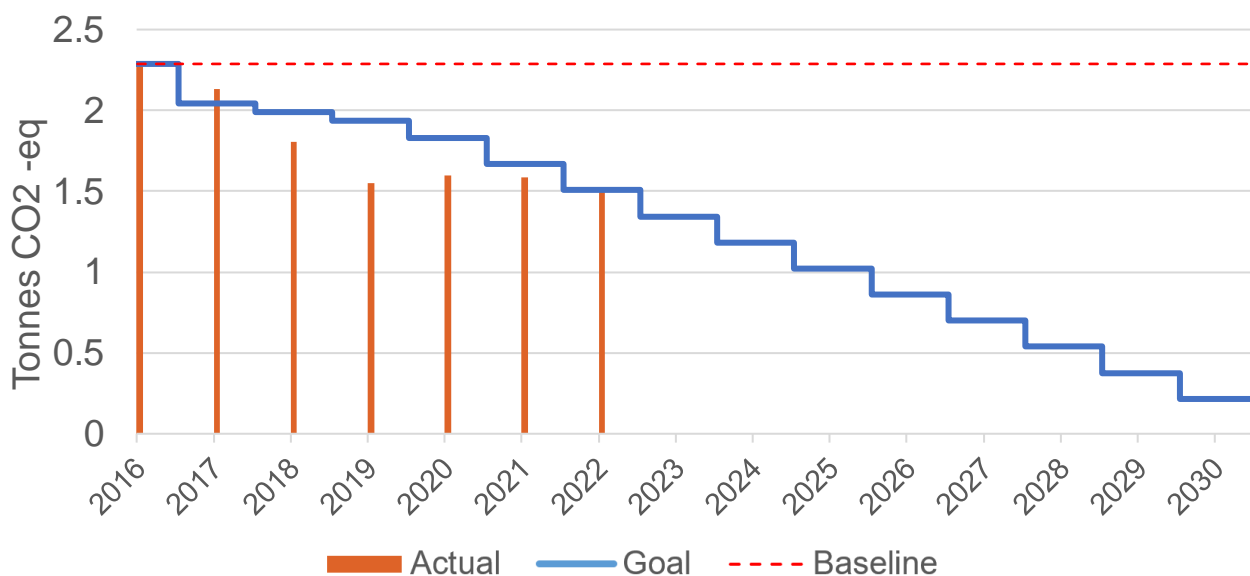
## Emissions from Fuel Use due to the use of Vehicles, Equipment and Generators (Veitur Utilities)

The graphs below display the goals and estimated actual emissions coming from Veitur Utilities' use of vehicles, equipment, and generators from 2016 – 2030 and the achievement towards these goals. In 2022, but the emissions were below the basic value. In 2022 on a per-employee-basis the goal was reached. There are few options in terms of cleaner generators and equipment, but Veitur Utilities will continue to work to shift the vehicle fleet to low or zero emission alternative vehicles.

Emissions from Fuel Use (Veitur)



Emissions from Fuel Use per employee (Veitur)

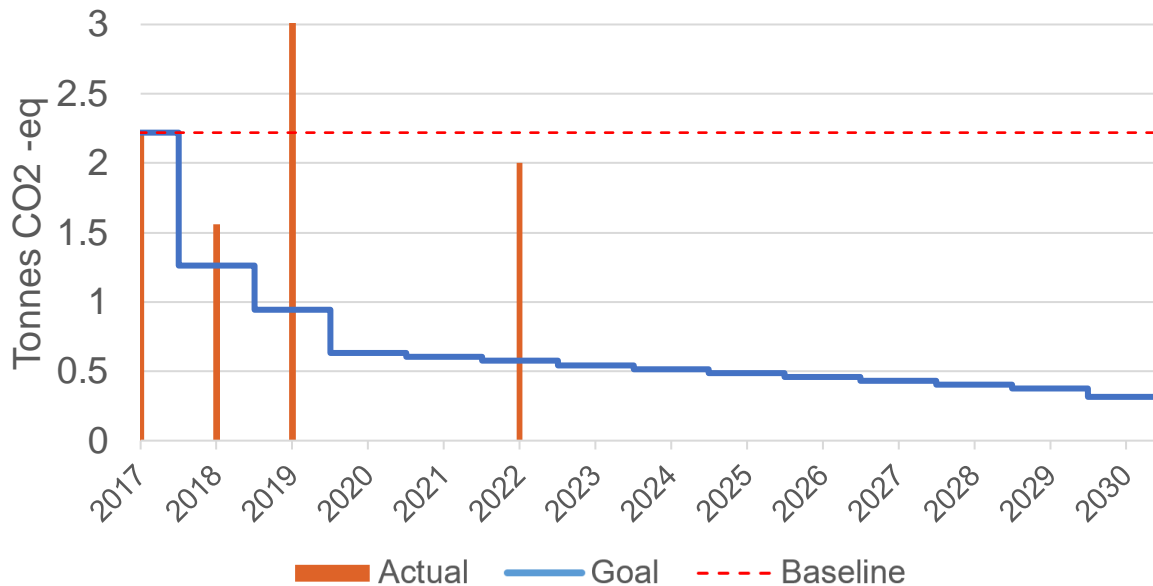




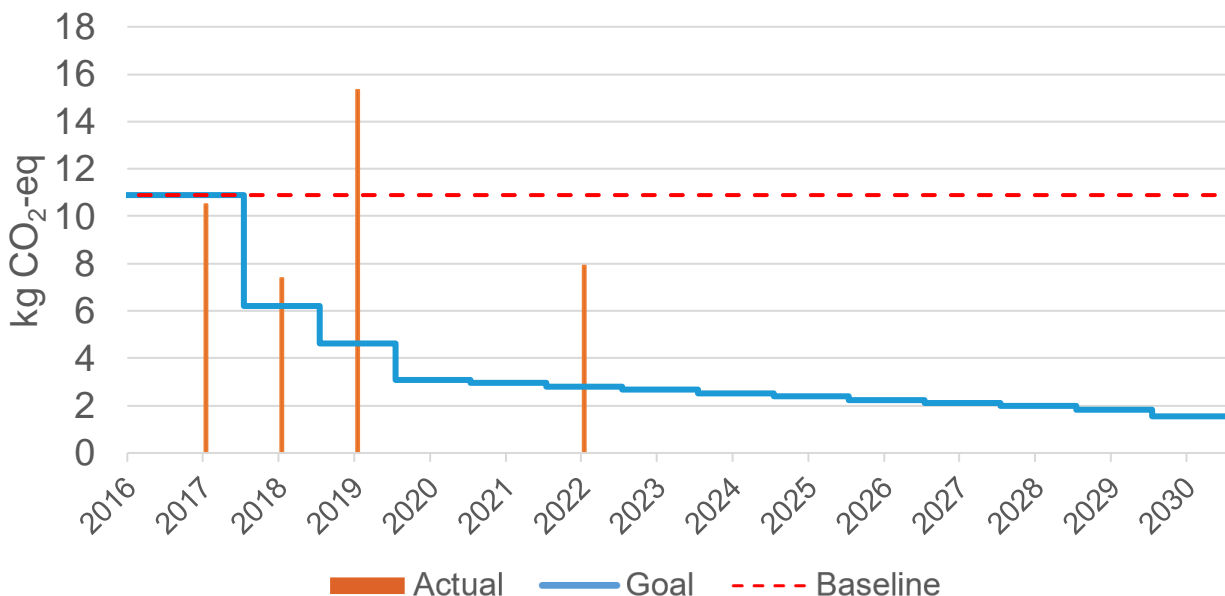
## Emissions from Food Waste of the Reykjavik Energy

The following graphs display the goals and estimated actual emissions of Reykjavik Energy's food waste coming from the Group's canteens from 2017 – 2030 and the achievement towards these goals. In 2017, the measurement of food waste began and therefore 2017 is used as the reference year. RE's canteen did not weigh food leftovers after the Covid pandemic began in March 2020, so no results are shown on food waste in 2020 and 2021.

Emissions from food waste



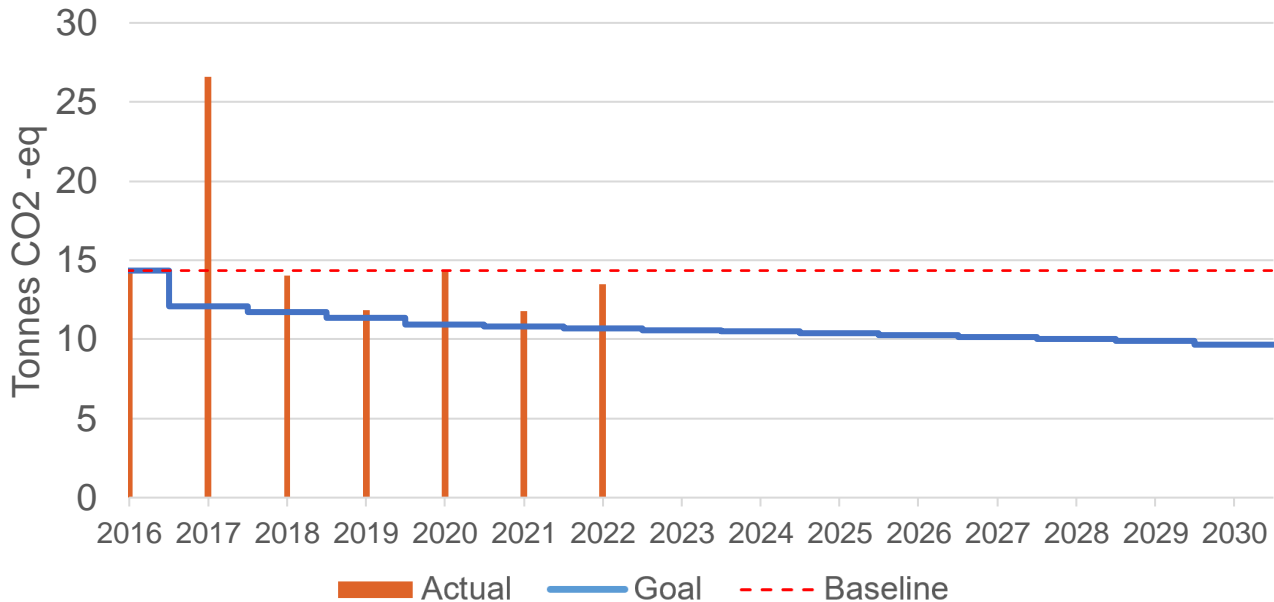
Emissions from food waste per employee



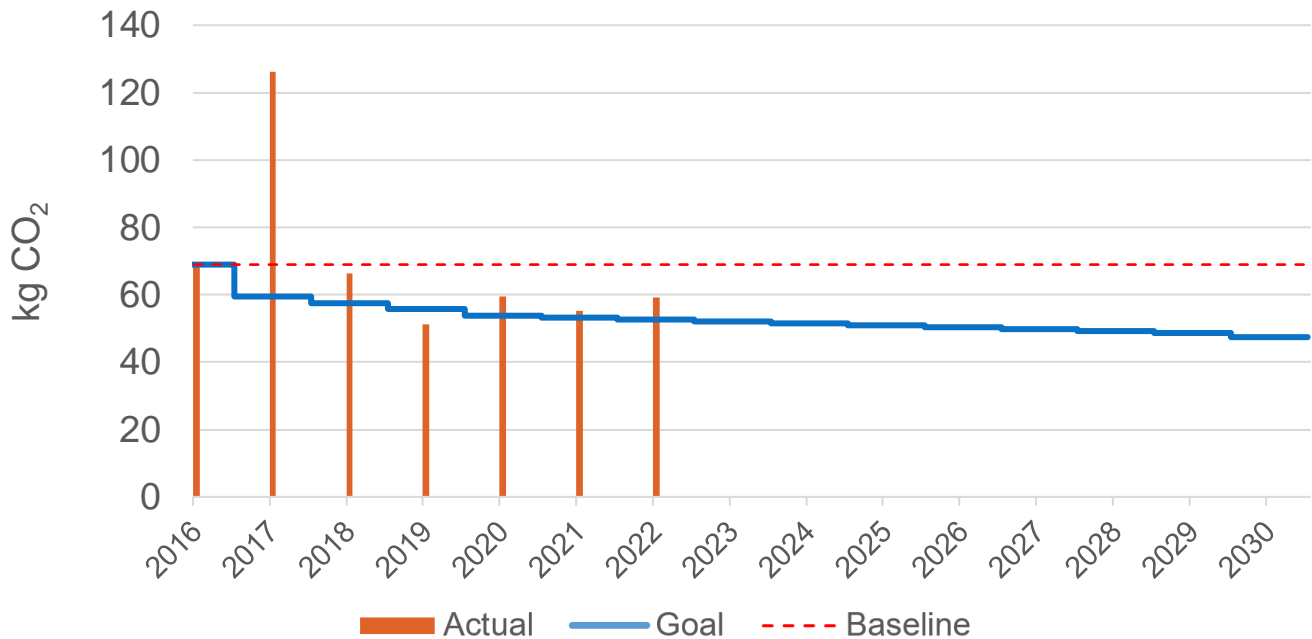
## Emissions from Office Waste (Reykjavik Energy)

The graphs below display the goals and estimated actual emissions from waste from Reykjavik Energy's office facilities 2016-2030 and the achievement towards these goals. In 2022 these goals were not achieved. Emissions from waste are calculated according to the category of waste (e.g. general waste, paper, plastic, etc.), the quantity of this category, and an estimate of how this waste is treated (e.g. landfilled vs. recycled). The emission factors for these different treatment options and waste categories are derived from the U.K. Energy Agency\*.

Emissions from office waste



Emissions from office waste per employee

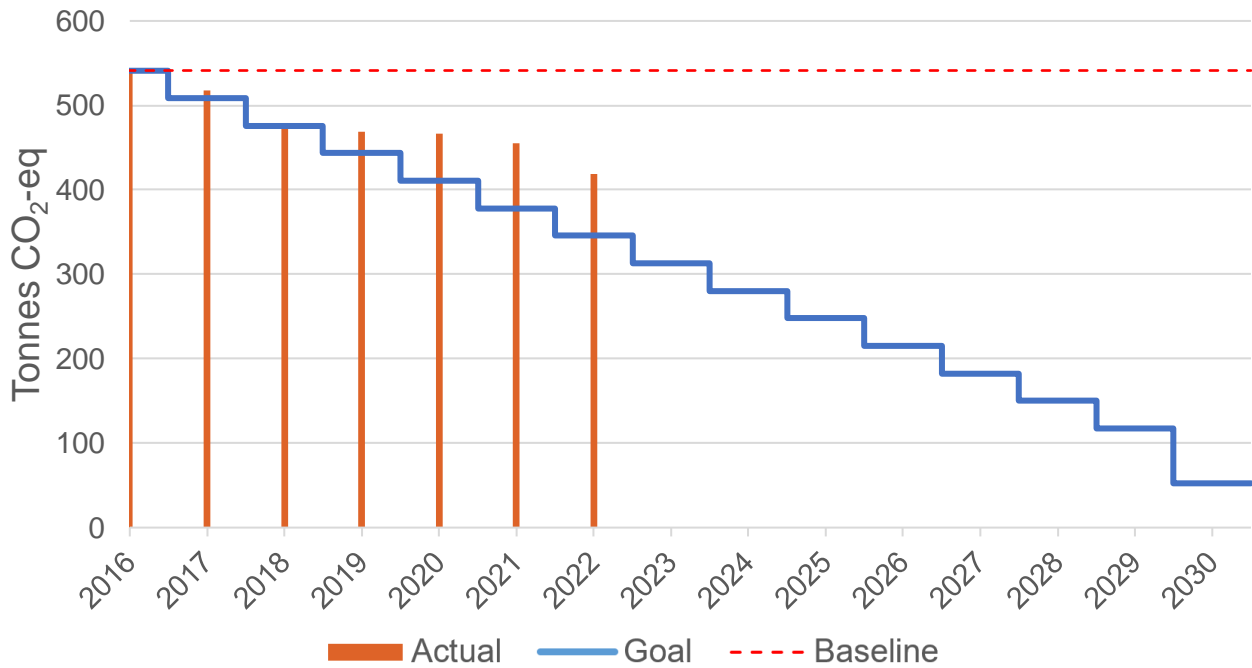


\*U.K. Department for Business, Energy & Industrial Strategy. "2022 Government GHG Conversion Factors for Company Reporting". August 2022

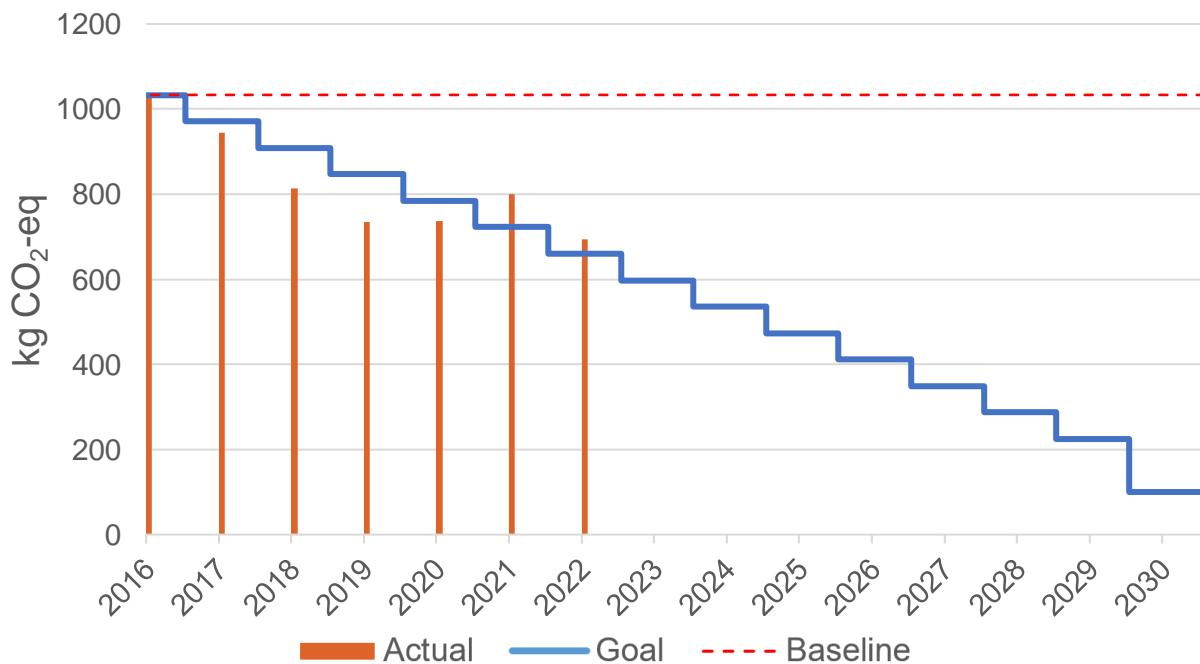
# Emissions from Reykjavik Energy's Car Fleet

The graphs below display the goals and estimated actual emissions coming from Reykjavik Energy's car fleet 2016 – 2030 and the achievement towards these goals. In 2022, these goals were met. In 2022, it was decided to carbon offset emissions from the car fleet through development projects under the auspices of the United Nations. Please see the Environmental Data Sheet of the Reykjavik Energy 2016-2022.

Emissions from fuel use



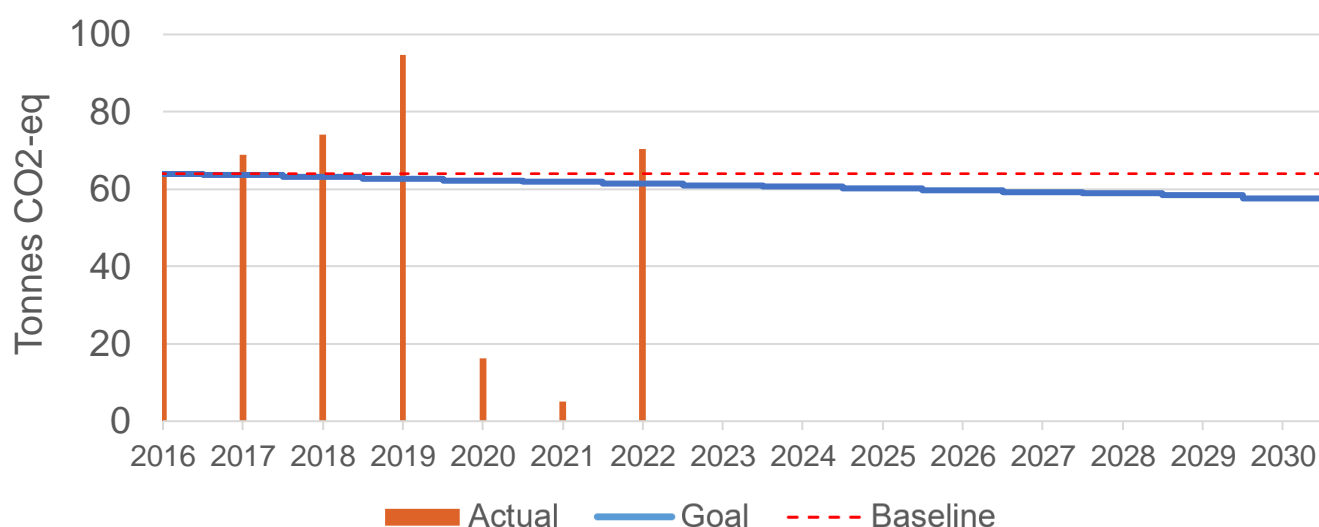
Emissions from fuel use per employee



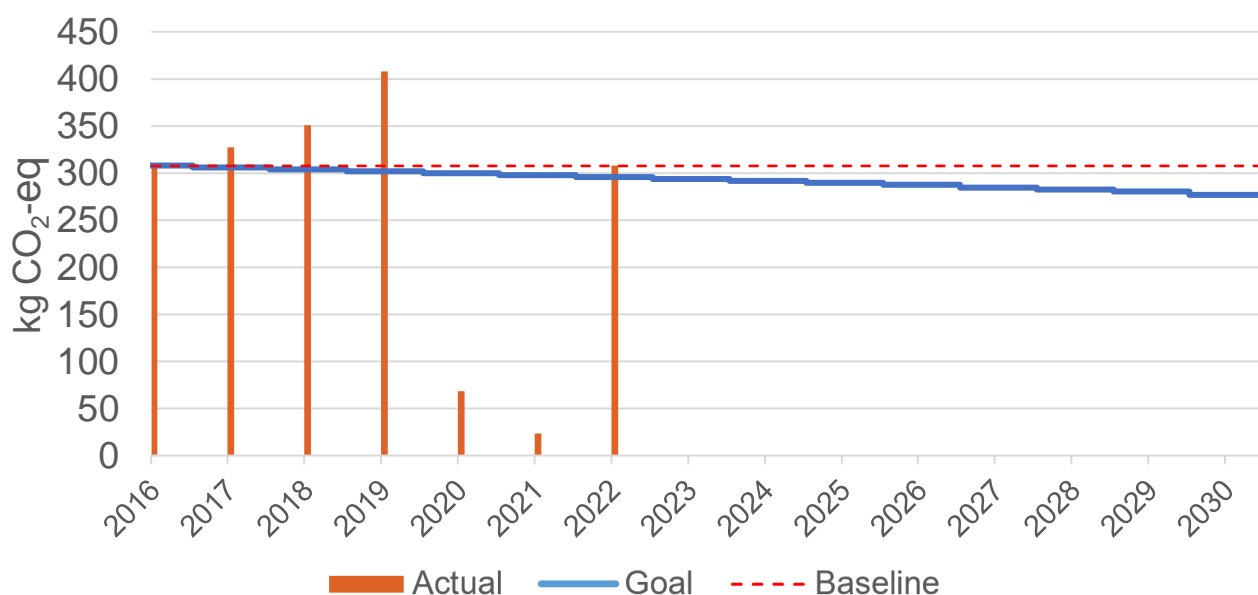
## Emissions due to Reykjavik Energy's Employee Business Travel

The graphs below show the goals of Reykjavik Energy in terms of GHG emissions due to business travel by Reykjavik Energy employees from 2016-2030 and current goal progress. In 2020 and 2021, emissions decreased compared to 2019 because of the Covid pandemic on RE's employee travel bans. In 2022, there was a rise in employee business travel following reduced effects of covid. This is a difficult emission category as the fuel source is outside the scope of the RE and there are not many clean options for replacing traditional flights. However, there are opportunities to reduce emissions by making more frequent use of teleconferencing, reviewing the need for air travel, for example for conferences that can be attended online.

Emissions from business travel



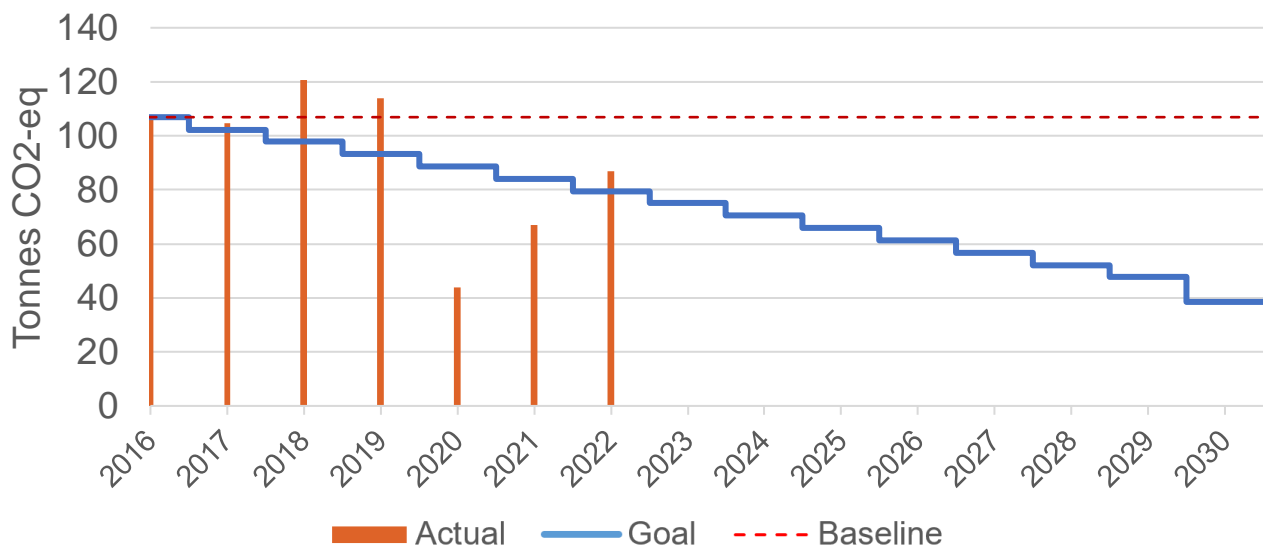
Emissions from business travel (flights) per employee



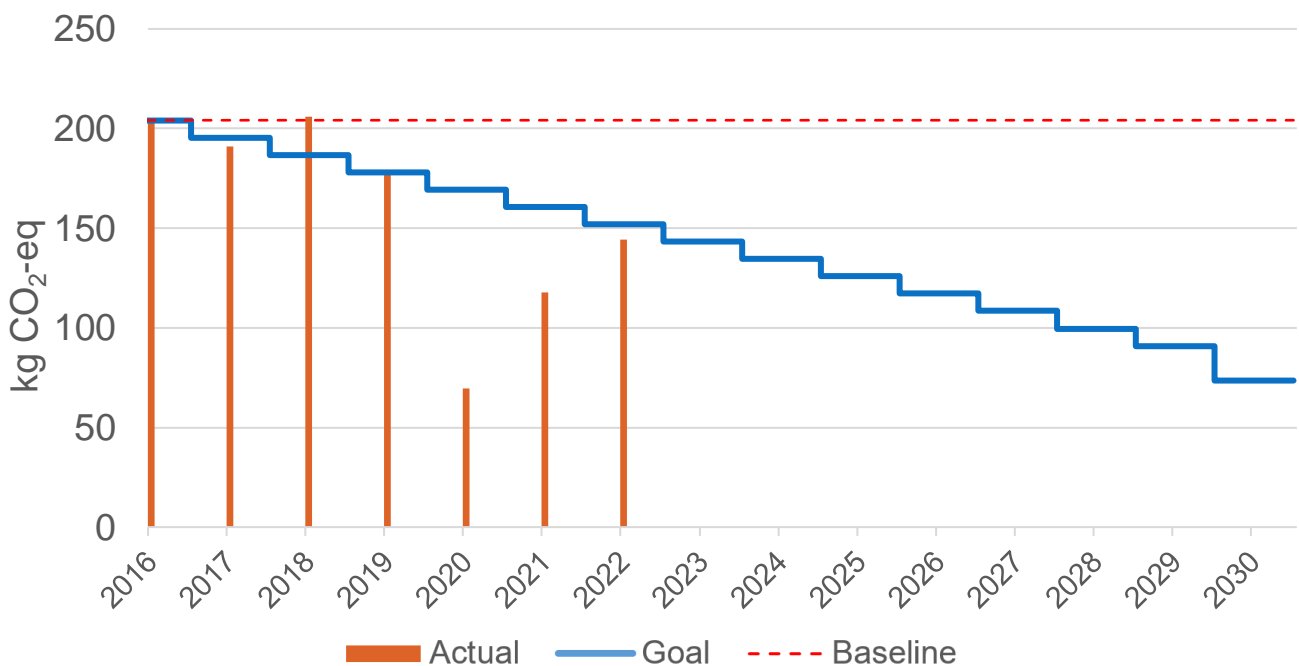
## Emissions from Reykjavik Energy 's Employee Commuting

The graphs below display the emissions and goals of the Reykjavik Energy from employee commuting 2016 – 2030 and the achievement towards these goals. In 2020 and 2021, emissions fell significantly, as a large proportion of RE's employees were working at home after the Covid pandemic started in March 2020. In order to assess the emissions coming from commuting, the residence of employees was estimated according to zip code, in accordance with the GHG Protocol.

Emissions from employee commuting



Emissions from employee commuting per employee



## Mitigations through Land Restoration and UN' development projects

The graph below displays the goals and estimated actual binding of CO<sub>2</sub> in nature caused by land restoration and reclamation of wetlands on the premises of the Reykjavik Energy from 2016 – 2030 and the achievement towards these goals. In 2022 the goal was met. It was decided to carbon offset emissions from the car fleet, aviation etc. for the year 2022 through development projects under the auspices of the United Nations. Please see the Environmental Data of the Reykjavik Energy 2016-2022.

