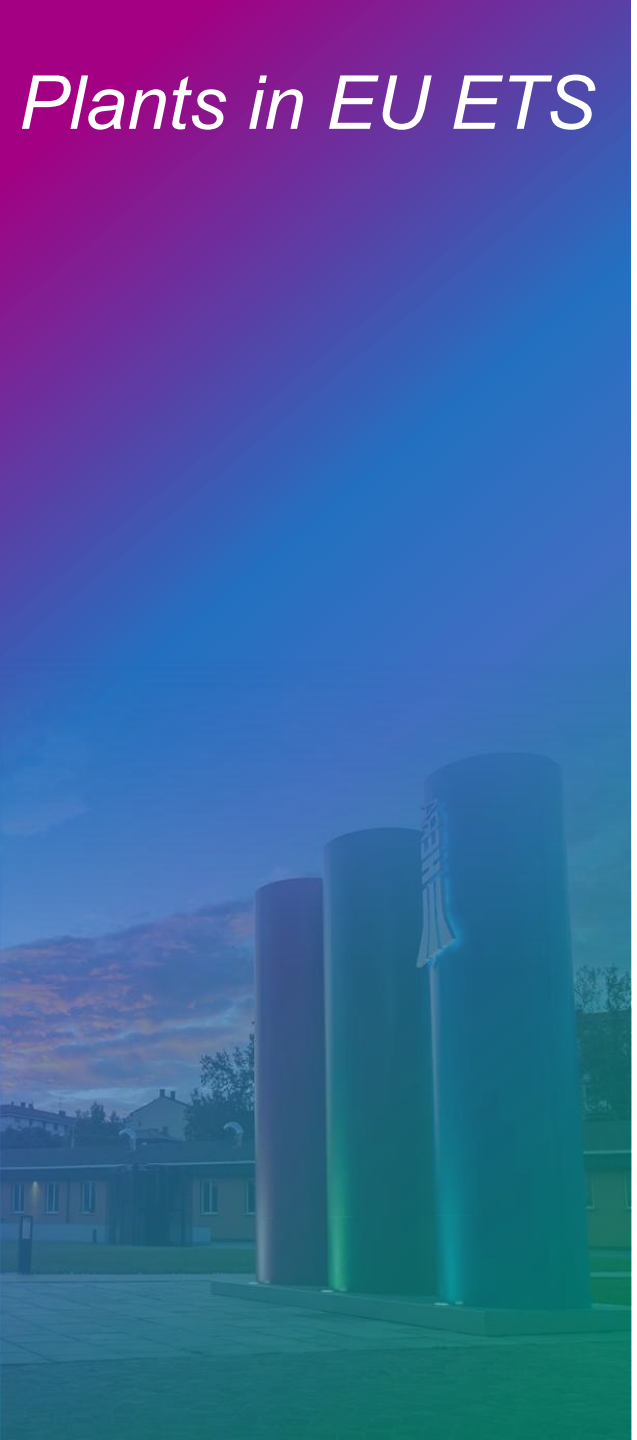
Internal Carbon Pricing

Solid infrastructures for a long-term sustainable strategy

Photo by Silvia Camporesi: construction phase of the biomethane plant of Sant'Agata Bolognese

Plants in EU ETS



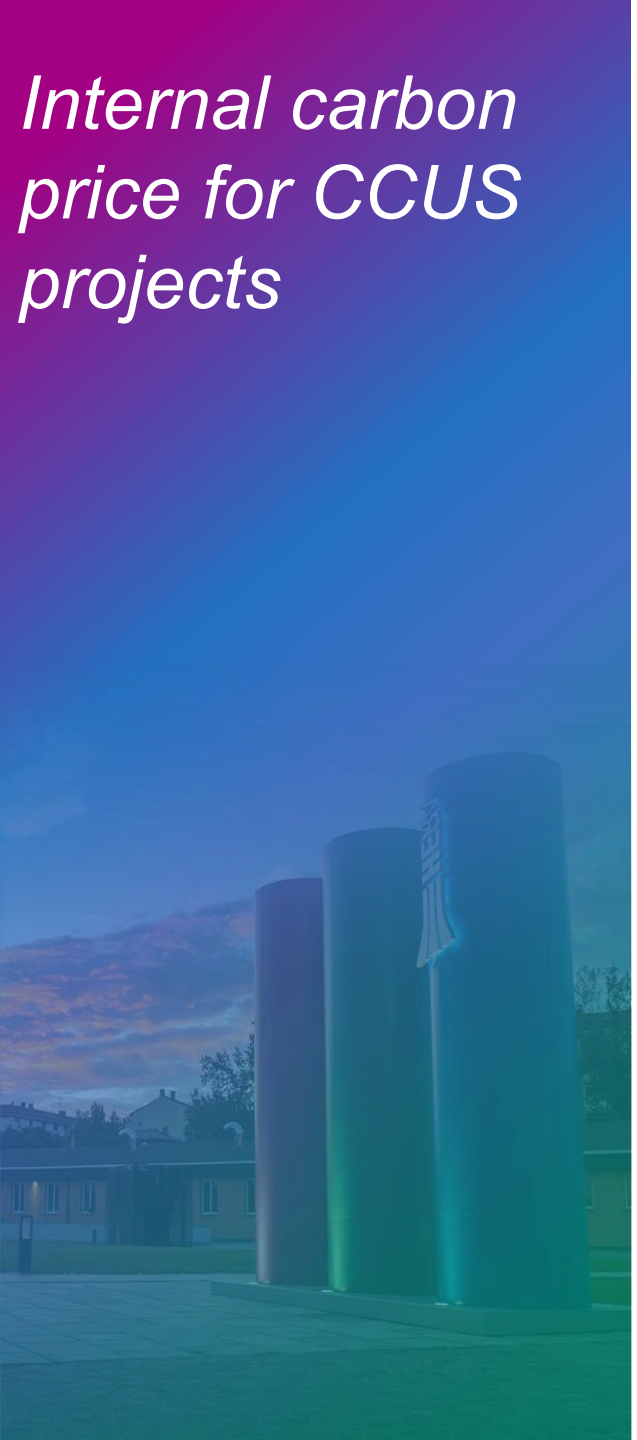
In the Hera Group, there are **nine plants subject to EU ETS** regulations in 2024, all of which are related to energy production activities serving district heating networks.

Emissions recorded in 2024 (96,351 tCO2) are significantly lower than in 2023 (127,521 tCO2), mainly due to the effect of a shutdown of the largest plant.

To take into account the fact that district heating is a public utility service and meets environmental sustainability criteria, the costs associated with emissions imposed by the EU ETS is partly mitigated through the free allocation of emission permits (“European Union Allowances” or “EUAs”) or a maximum amount of permitted emissions up to which no costs are incurred.

In 2024, this amounted to a total of 37,133 tCO2 and the EUAs allocated for free in 2024 amounted to 7,280 tCO2, the latter decreasing compared to 2023 (8,476 tCO2) in line with a decreasing trajectory over time that the regulation has provided for in order to favour the achievement of long-term greenhouse gas reduction targets, as well as in accordance with the trend of plant activity.

Internal carbon price for CCUS projects



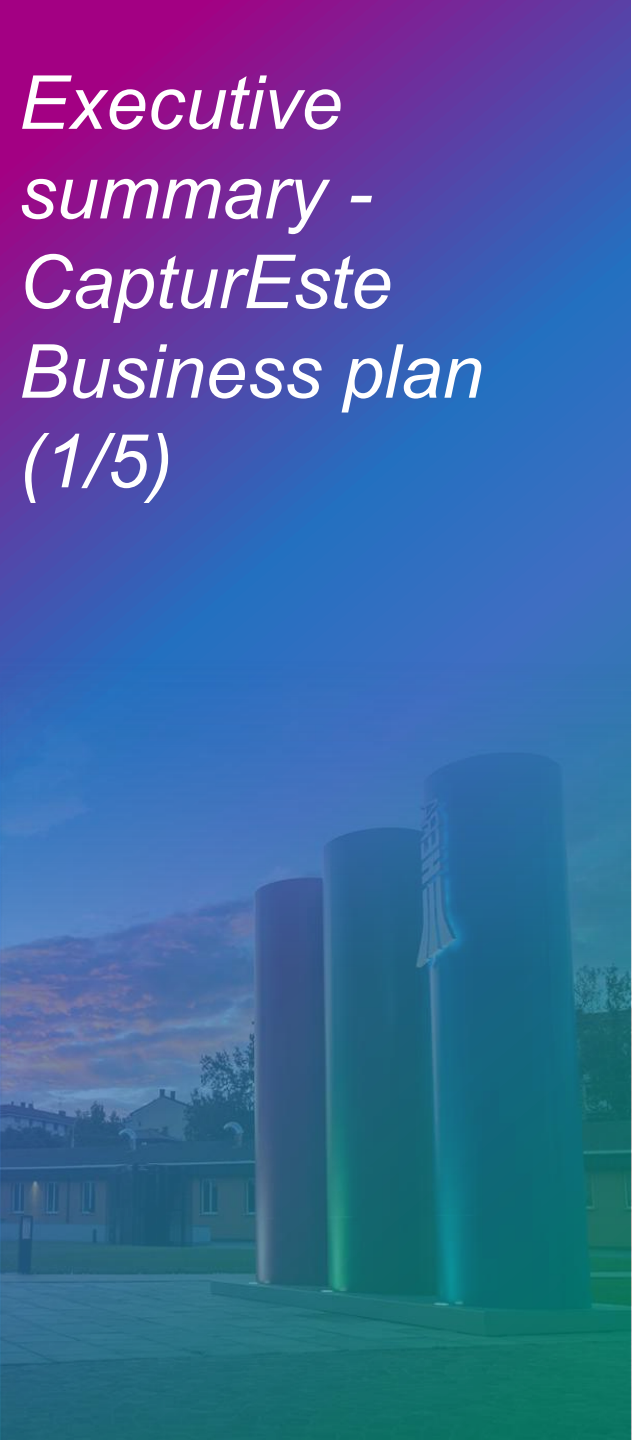
With the **Climate Transition Plan,** approved by the Hera S.p.A.'s Board of Directors in July 2024, the Group has defined a set of long-term actions aimed at reducing its own Scope 1 and 2 and Scope 3 emissions related to its customers.

These initiatives include the **installation of carbon capture and storage** (CCS) **technologies on several waste-to-energy plants** that make up the Group's plant park (Scope 1).

For the definition of business plans for such initiatives, the Group applies a **shadow price relative to the hypothetical cost of carbon to each tonne of CO2** as a tool to reveal hidden risks and opportunities throughout its operations and to support strategic decision-making related to this kind of capital investments.

We report below the executive summary of the CapturEste Project as the first business plan defined, which will be followed by those for other WTEs in order to contribute to the achievement of the Group's Net Zero 2050 target.

Executive summary - CapturEste Business plan (1/5)



Hera Group is a leading player in the Italian multi-utilities sector with 20B€ revenues in 2022, and 4.4B€ investments expected in the 2023-2027 Business Plan. Hera Group has the ambition to become a leader in decarbonization, proven by the approximately 31% share of planned investments dedicated to decarbonization, as well as by its decarbonization targets which sets the goal of:

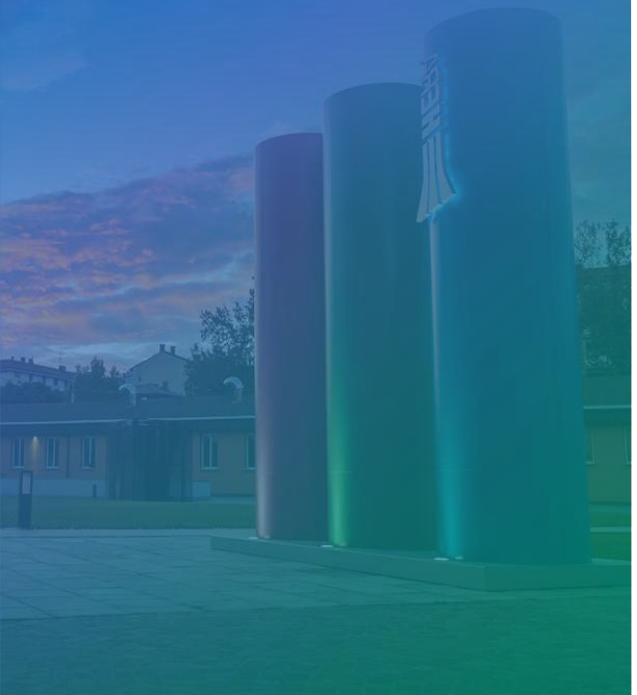
- a 37% CO2 emissions reduction by 2030 compared to 2019 level (Scope 1, 2 and 3 emissions) certified by the Science Based Targets initiative;
- a 90% CO2 emissions reduction by 2050 compared to 2019 level (Scope 1, 2 and 3 emissions) as defined in the Hera Group's Climate transition plan "Towards Net Zero".

As part of Hera's strategy, **the Group is developing Carbon Capture solutions for its Waste-to-Energy (WTE) plants**, which will enable to reduce up to 90% of their CO2 emissions. This is in line with the need to decarbonize its WTE business, due to its expected inclusion in the EU ETS starting from 2028.

Deploying carbon capture will not only enable Hera decarbonization, but it will also entail economic and strategic advantages:

- The increase in resilience, driven by the minimization of the economic risk of the anticipated rise and volatility of ETS allowances prices;
- The acquisition of a competitive advantage, in terms of know-how of a technology which will be crucial for the future operations of WTE (a sort of license to operate).

Executive summary - CapturEste Business plan (2/5)



Moreover, the implementation of this decarbonization lever will also benefit local communities thanks to:

- The minimization of the impact on the residents' waste tax, in case the Italian regulator decided to include decarbonization costs within eligible costs to be borne by residents*;
- The preservation of local jobs and value creation of the WTE sector, which represents a vital component of the Italian and EU economic landscape, offering two essential services to citizens (waste treatment and energy generation).

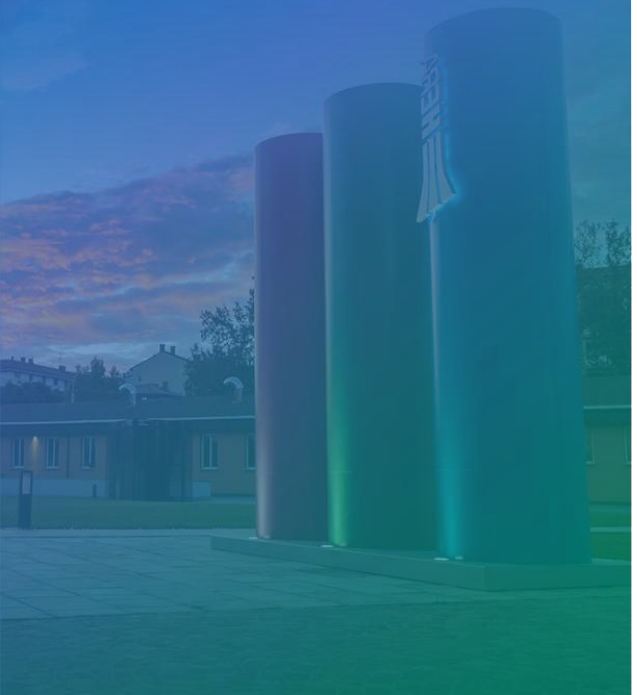
Within its WTE portfolio of assets**, Hera group identified Ferrara site as the priority location to deploy carbon capture,** since it is positioned only 70km away from the largest CO2 storage site in Southern Europe: Ravenna CCS.

Furthermore, Ferrara plant is close to a large geothermal source that will be able to feed the energy intensive carbon capture process with low carbon heat. To execute this project, Hera group has selected CO2 Solutions by Saipem technology, which, given its capability to use low-grade heat, is particularly suited to leverage heat from low temperature sources, such as geothermal wells.

At the end of 2024, **the Captureste project has been awarded the EU Innovation Fund as a medium-scale project with a grant of about 23 million Euros.**

* Carbon capture costs are expected to be lower than costs to comply with EU ETS, resulting in the minimization of the impact on residents that need to pay the tax

Executive summary - CapturEste Business plan (3/5)



The project is in an advanced phase: Herambiente (the emitter) has engaged all relevant counterparties and signed with them collaboration agreements (i.e., pre-contractual agreements, Letters of Intent, Memorandums of Understanding and letters of support, which can be found in Annex II of the application “Terms of Supply”). These stakeholders include:

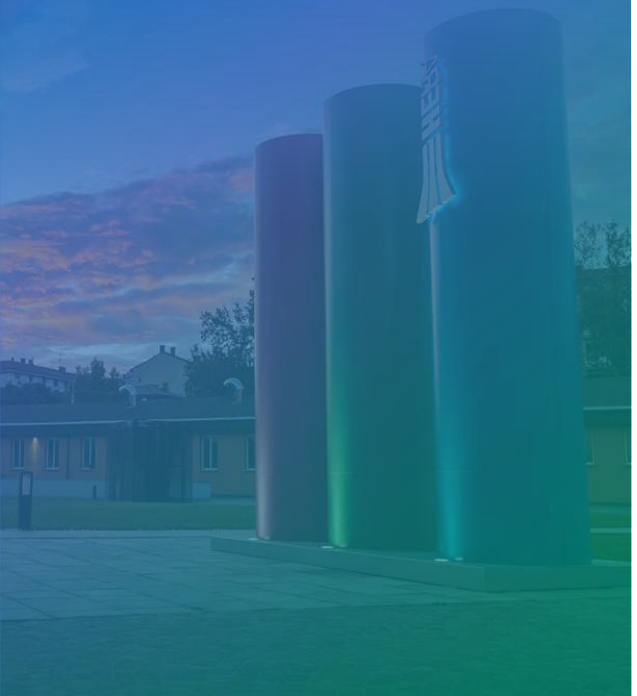
- Funder: Hera Group (parent company of the emitter), which will provide an intercompany loan (equity);
- Suppliers: Technology and Engineering Services Provider (Saipem), prospective CO2 Transport & Storage Providers (Snam and Eni), Heat Supplier (Hera S.p.A. – parent company of the emitter) and Enzyme Provider (Novozymes).

These parties have jointly contributed from the project's inception, ensuring the business plan's integrity and the validity of foundational assumptions. More specifically:

- Capital Expenditure (53 M€) has been estimated by the Technology Provider (Saipem) with a AACE Class 4 accuracy; looking at the CapEx technical cost (31 €/tCO2)*, the value is roughly 20% lower than the technology benchmark considered);
- Consumption data of the carbon capture plant and pricing of key consumables (e.g., chemicals), have been calculated by Saipem based on the results of the feasibility study, preliminary quotations from suppliers and prices included in frame agreements (e.g., Novozymes);
- The T&S cost has been calculated based on the inputs shared by the T&S Providers (Snam and Eni);

* Calculated as the sum of total carbon capture CapEx divided by the sum of total emissions avoided over the project lifetime

Executive summary - CapturEste Business plan (4/5)



- Power will be sourced directly from the Waste-to-Energy plant and its price is in line with the 2023 average awarded price for Renewable Energy Sources auctions in Italy (70 €/MWh*);
- Heat price has been agreed directly with the supplier, Hera S.p.A;
- **The carbon price of EU ETS (187 €/tCO2**), used as a shadow price, is in line with IEA's Announced Pledges Scenario until 2040 and with IEA's Net Zero Emissions by 2050 Scenario from 2041 (the business plan assumes municipal WTE will be included in EU ETS from 2028);**
- The interest rate and terms of the intercompany loan have been agreed with Hera Group;
- The project foresees 25 years of operations.

To meet the capital need mentioned above, the project will be financed by the EU Innovation Fund grant for approximately 24M€***, while the remaining part will be financed by Hera Group (via an intercompany loan).

The economics of the Project could be further improved by a series of upsides, conservatively not quantified. These include: the generation of carbon credits from capturing biogenic CO2, the sales of guarantees of origin on the low-carbon power produced, additional potential cost optimizations and more aggressive EU ETS prices scenarios (e.g., IEA Net Zero Emissions by 2050 Scenario for the whole project duration).

* Avarage over the project lifetime, real terms 2024
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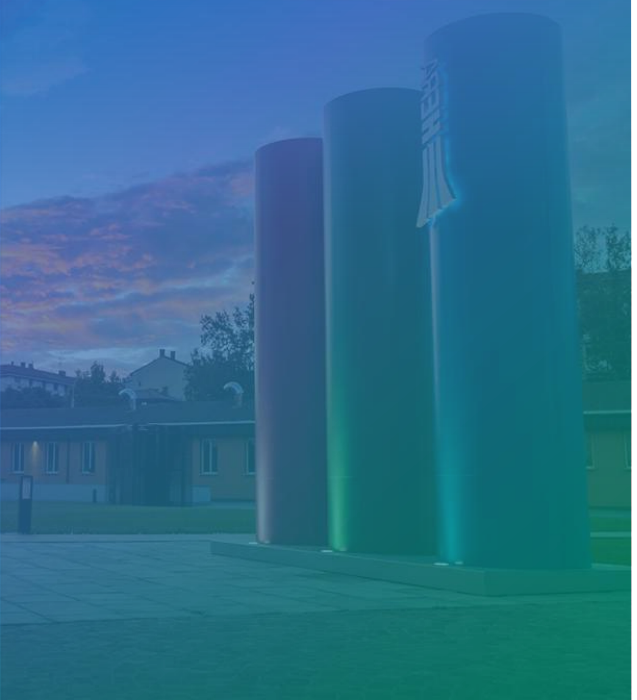
*** Considering grant received before and after beginning of operations

Executive summary - CapturEste Business plan (5/5)



The Team has also identified the potential financial risks that could impact the project (e.g., estimation of CapEx, date of inclusion of WTE in EU ETS) along with corresponding mitigation measures (e.g., value engineering, competitive contracting strategy, sale of carbon credits).

Given Hera Group's decarbonization ambition, as evidenced by the Climate Transition Plan approved by the Board of Directors of Hera S.p.A. and the fundamental role played by carbon capture for the Waste To Energy business, the Board of Directors and CEOs of Hera S.p.A. and of Herambiente S.p.A. and the CFO of Hera S.p.A. have approved CapturEste project and have confirmed their commitment on project funding via a dedicated support letter. The project represents a cornerstone for a sector offering critical services to citizens.

The project is currently in the permitting phase. Environmental Impact Assessment has been applied in April 2025 and is expected to be completed by the end of 2025.