

New Business Opportunities

Solid infrastructures for a long-term sustainable strategy

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

New Business Opportunities

Electricity & Multi-Utilities

Distributed Energy

(Residential / Commercial Customers)

- **Distributed Generation**

- Distributed Generation (PV, Micro CHP, etc.)
- Home storage systems (<100 kW)
- Other

- **Energy Efficiency**

- **Fuel Switching**

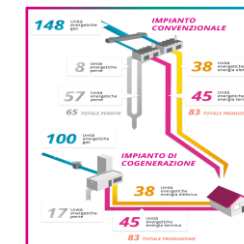
Development of Energy Communities

First Energy Community started in 2022 in a condominium located in Bologna. Hera signed an agreement with Emilia Romagna Region to develop Energy Communities (141 projects). Please see the webpage dedicated to energy communities (only Italian language): <https://heracomm.gruppohera.it/comunita-energetiche> and page 57 of 2023 Sustainability Report <https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



Micro-cogeneration business

Hera offers multi-year energy service contracts to audit, design, build and manage energy plants (co/trigeneration plants, PV, heat pumps, solar panels) on condominiums, companies, public administration sites. See pages 48-49 of 2023 Sustainability Report for further information <https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



Photovoltaic business

Hera has installed 5.1 MW of PV capacity in own offices and facilities and foresee to install 150 MW by 2027. It has also 10% stake in Aloe Spa that manages 7.2 MW. Hera, through its subsidiaries Wolmann and Fratelli Franchini build-and-transfer PV plants for third parties and foresees to install more than 150 MW by 2027. See pages 38, 52-53, 58 of 2023 Sustainability Report for more information <https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



Turboexpanders

Hera manages turboexpanders to take advantage of pressure differentials in the gas distribution network. See page 52 of 2023 Sustainability Report for further information <https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



The development of these projects has a clear climate change strategic framework described on pages 30-37 of 2023 Sustainability Report, prioritizing clients and Hera energy efficiency rather than the expansion of power generation itself

Electricity & Multi-Utilities

Distributed Energy

(Residential / Commercial Customers)

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 - Home storage systems (<100 kWh)
 - Other

- Energy Efficiency
- Fuel Switching

Home storage systems (<100 kWh)

Hera offers multi-year energy service contracts to audit, design, build and manage energy plants (co/trigeneration plants, PV, heat pumps, solar panels) on condominiums. Client can be provided with home storage facilities in order to optimise the economics/returns of their investment in PV. Hera provides the service to deliver a “ready to use” set of Equipment (and not solely limited to storage facilities). See HeraComm website (Italian only):

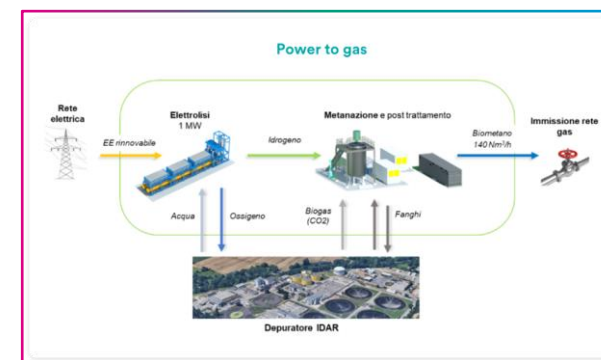
<https://heracomm.gruppohera.it/casa/fotovoltaico#Modelli>



Other

Hera is managing several kind of plants in waste, water, gas and electricity. Hera is focused mainly in increasing the energy efficiency or energy renewable generation from those different plants rather than expanding electricity generation plants itself (Hera strategy in electricity is clearly focused to move downstream). See at pages 52-61 of 2023 Sustainability Report the widespread plants which exploit potentials to generate electricity in different businesses such as Waste to Energy (burning waste to reduce landfill use), landfill biogas from disposed waste, sludge treatment plants from wastewater, turboexpanders (decompression of gas), cogeneration plants (also from geothermal), photovoltaic (placed on our widespread facilities), organic waste treatment plants (biogas from organic waste). This generation is awarded with incentives with extra revenues. See also project for Power to Methane technology for electrical energy storage (page 57) and hydrogen valleys with storage facilities (page 351). Link to the 2023 Sustainability Report:

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



Electricity & Multi-Utilities

Distributed Energy

(Residential / Commercial Customers)

- Distributed Generation
- Energy Efficiency
 - Smart appliances/home systems, prosumer services
 - Information campaigns, audits, tariff measures
 - Energy audits, energy management services
 - Other, please specify
- Fuel Switching

Public Lighting business

Hera Public Lighting business (<https://www.heraluce.it/>) is described at pages 49-51 of 2023 Sustainability Report

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>.

Hera replaces lamps with LED technology increasing energy savings. Hera is the fourth largest Italian player and the first offering a “Circular Economy Solution” in public lighting.



Smart appliances

Hera supplies to retail and business clients devices “easy to install”, to regulate heat at home (Hera Thermo) and monitor electricity consumptions (Hera ContaWatt) through mobile phones aiming at increasing energy efficiency. Please see pages 46-47 of 2023 Sustainability Report

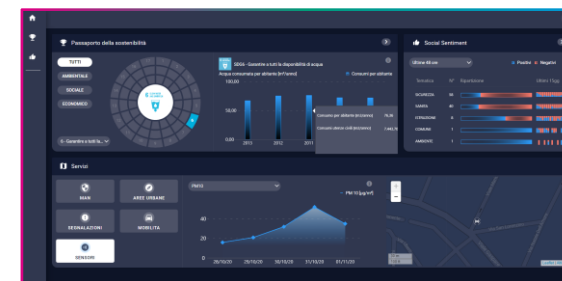
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Public Administration Dashboard

Public Administration clients have available a monitoring system “dashboard” to control the cities” different kind of measures in real-time collected from Hera network of sensors, spread out on the reference territories. See pages 145-146 of 2023 Sustainability Report for further information

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



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Hera international engagement on climate change issues

Hera commitment toward information campaign is testified by our engagement at international level with climate change issues taking part to several initiatives. See pages 35 and 350-351 of 2023 Sustainability Report for further information

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>.

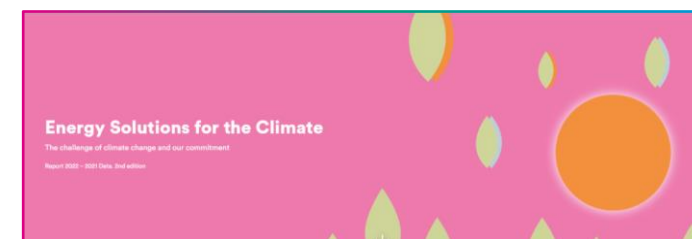


Information campaign

Information campaign also includes a brochure distributed to customers Energy Solutions for the Climate:

https://eng.gruppohera.it/group_eng/sustainability/thematic-reports/energy-solutions-for-the-climate

Main opportunity regards the reputation of Hera which enhances the confidence of clients in the Value Added Services (VAS) provided by Hera in Energy.



Conferences on sustainable issues

Hera organizes conferences on sustainability issues open to all citizens and with the participation of experts. Find here some of the latest events:

<https://www.gruppohera.it/-/l-acqua-che-verra-il-gruppo-hera-si-sta-attrezzando-per-affrontare-il-rischio-eventi-siccitosi-pluriennali?459=0>

<https://www.gruppohera.it/-/l-8-edizione-di-sustainable-procurement-summit-si-terra-nella-sede-del-gruppo-hera>

<https://www.gruppohera.it/-/la-5-conferenza-nazionale-sull-economia-circolare-appuntamento-il-16-maggio-a-roma>

<https://www.gruppohera.it/-/gruppo-hera-main-partner-del-festival-dello-sviluppo-sostenibile>

<https://www.gruppohera.it/-/waste-to-value-le-sfide-della-depurazione-tra-innovazione-e-sostenibilita>



Electricity & Multi-Utilities

Distributed Energy

(Residential / Commercial Customers)

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 - Smart appliances/home systems, prosumer services
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 - Other, please specify
- Fuel Switching

Energy Service Company (Esco)

Hera operates as an Energy Service Company serving providing Energy audits services both for business and retail customers. See pages 38-40, 43-51 and 58-61 of 2023 Sustainability Report

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>.

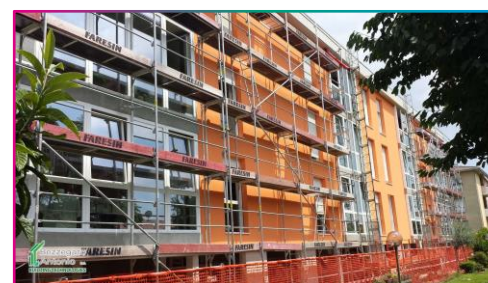
Further Energy Services are provided such as Heat Management to Public Administrations (see page 49), boilers maintenance/audit and insurance for system default for retail and business customers (pages 46-48, 222-223). These activities increase energy efficiency and loyalty of clients adding value to Hera offer. All this increase reputation on the market, enhancing commercial standing and credibility of Group's innovative offers as well.



Thermal energy efficiency

Further market opportunities are related to thermal energy efficiency by improving customers apartments insulation (funded by Next Generation EU funds). Promotion and sales for improving the energy efficiency of products and services and support for energy efficiency in buildings (Ecobonus). Furthermore, Hera is certified ISO 50001. See pages 18, 36-37, 41-42, 43-51, 381-382 of 2023 Sustainability Report for more information

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



New Business Opportunities

Electricity & Multi-Utilities

Demand-side Management

(Industrial / Commercial Customers)

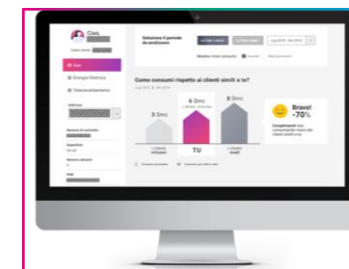
- Energy Efficiency
 - Energy audits, energy management services
 - Lighting, appliances, HVAC systems, CHP, etc.
 - Other
- Load Optimization

Energy audits, energy management services

The consumption analysis report is a free service that Hera makes available both to household and business clients comparing their energy consumption with similar consumers. This service is now available for electricity, gas and district heating and water (see page 46 of 2023 Sustainability Report). Hera offers multi-year energy efficiency service to audit, design, insulate, substitute old energy systems with new energy solutions (co/trigeneration plants, PV, heat pumps, solar panels, boiler maintenance, LED devices) on business clients, public administration and retail clients. See pages 43-51 of 2023 Sustainability Report for further information

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>. See also the Audit2Measure project at the following link:

https://eng.gruppohera.it/group_eng/business-activities/energy/energy-efficiency/project-audit-to-measure



Lighting, appliances, HVAC systems, CHP, etc.

Industrial clients are approached and managed through a multi-utility integrated offer “Hera Business Solution” (<https://www.gruppohera.it/hbs>) which goes on top of the offers also guaranteed to retail as follows: Hera LED option, for retail customers, offers one or two sets of 10 LED bulbs per contract at a 30% discount on their market value. Customers can sign up green offers (see pages 59-61 of 2023 Sustainability Report). Since March 2019, 100% of electricity sold to customers is sourced from renewable bought on the wholesale certified market. Furthermore, a full set of smart app for mobile phones or computers are provided to all customers: MyHera (pages 46, 149-151), Hera ContaWatt (page 223), Hera Thermo (page 47). See pages indicated on 2023 Sustainability Report

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



Other: Green loyalty programmes and Value Added Services

See Green loyalty programmes (<https://genherazioni.gruppohera.it/>) at page 68 of 2023 Sustainability Report

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>

Hera provides also Value Added Services for energy efficiency and carbon neutrality (an offer also given to retail) and plant optimization through revamping

#genHERAZIONI
I VANTAGGI DI CAMBIARE INSIEME



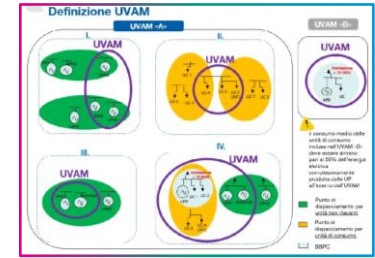
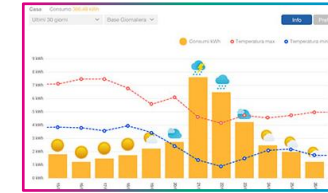
Electricity & Multi-Utilities

Demand-side Management (Industrial / Commercial Customers)

- Energy Efficiency
- Load Optimization
 - Tariff measures, contracting for load reduction
 - Smart grid technology
 - Micro-grids, virtual power plants
 - Large-scale storage

Tariff measures, contracting for load reduction

Tariff measures are in place based on load requested by retail clients. To business customers the load paid is determined on the basis of the peaks reached on a certain time horizon. In order to control load peaks of business clients, Hera provides a web portal where they can check hourly consumptions so to better match those with the activities carried out daily: this permits clients to organise the activities so to reduce their peaks in energy consumptions and paying lower load supplied saving costs. Hera also set in place contracts that incentivise business clients to withdraw less energy from the network in peak hours, sourcing energy from own micro-cogeneration plants (UVAM). See also page 209 of 2023 Sustainability Report for more information <https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



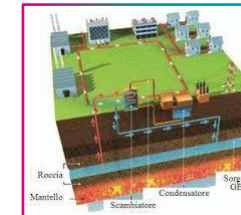
Smart grid technology

Hera manages 3 kind of energy networks (gas, electricity and district heating) fully controlled by a single remote-control unit; all networks are provided 100% with meters for each customer. Electricity network is provided with electronic meters that can already analyse hourly consumptions when equipped with Hera ContaWatt, whereas gas distribution has started the rollout process to substitute old fashion meters with new smart meters (already substituted 92.1%, see pages 235-236 of 2023 Sustainability Report). A new gas meter has been developed in JV with Panasonic (see pages 68, 204, 220-221, 235, 352 of 2023 Sustainability Report). In the district heating network meters and thermostat valves are installed. Meter readings are transmitted through property radio systems applicable to all nets. When energy services are provided to condominiums to insulate and improve energy efficiency, meters are installed in each apartment. <https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



Micro-grids, virtual power plants

Hera has developed a district heating (described in “fuel switching”) network to feed clients with hot water produced by the Group widespread plants. District Heating is alternative to public gas distribution (usually used to heat up apartments in Italy). Micro-grids are developed mainly internally within Group facilities as well. See pages 126-128 of 2023 Sustainability Report <https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



Large scale storage (>100 kWh)

District heating network has set up a >20 MWh energy (heat) stocking facility so to exploit heat produced during low consumption hours



Water

- Water supply
 - Water reuse
 - Other
- Industrial Water
- Environmental Services

Water reuse

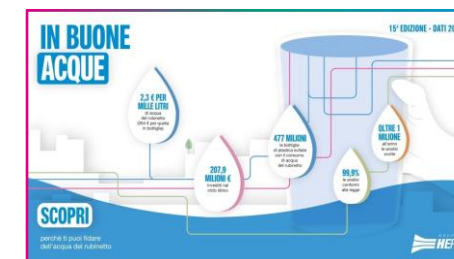
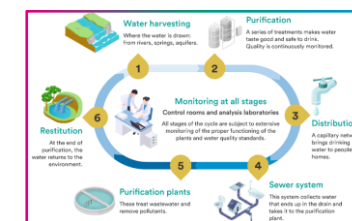
Regenerating resources and closing the loop is central in our Climate Strategy (see pages 77-137 of 2023 Sustainability Report) and a description of strategy, initiatives, investments, financials and KPIs targets are disclosed. Opportunities in water issues are particularly addressed by Hera. The issue is not only the availability of water sources but has implication on the networks (which suffer a higher tension in a dry and rigid soil causing leakages). Leakage reduction, resilience of networks (through interlinks within the network), diversification of water sources, promotion of conscious use of water, and re-use of wastewater are all measures implemented by Hera. Hera re-use water in different plants managed in businesses that imply use of water (about 85% of the water used in Hera production processes is re-used; see at page 179 of 2023 Sustainability Report). To specifically read on the re-use of water in Hera, see also pages 96,106-108 of 2023 Sustainability Report

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>

Other

Reducing the stress level of the pipelines permits to decrease the probability of service interruption and lower the pressure in the water pipes (cost reduction in pumping and lower leakages) avoiding the loose of “Quality and Technical premiums” guaranteed by the tariff system (see page 114 of 2023 Sustainability Report). A brochure “In buone acque” (see pages 113-114 of 2023 Sustainability Report), to increase conscious use of water, a smart app “Acquologo” is made available to clients (see page 149 of 2023 Sustainability Report) which provides real time data on consumptions. Hera addresses the increase of links within the water network so to differentiate the sources of water and to reduce the pressure in pipes (higher pressure causes higher number of leakages). Business plan addresses 1.2 b€ capex in water networks. All these initiatives enhance revenues of water services as investments are remunerated and “premiums” are granted when quality standard exceeds regulated ones (standard enhanced by a more resilient network). See pages of the 2023 Sustainability Report indicated above

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



Water

- Water supply
- Industrial Water
 - Water reuse & recycling
 - Wastewater treatment
 - Other
- Environmental Services

Water reuse & recycling

Hera purifies household client's wastewater and sells it to agricultural operators instead of fresh water (see pages 106-108 of 2023 Sustainability Report). Our capex plan to 2027 addresses development of energy efficient depuration technologies. Higher energy-efficiency of the 230 Group's depuration plants (see pages 115-118 of 2023 Sustainability Report) imply both cost cutting and higher quality of reusable water. This capital allocation may increase returns, enhance revenues and reduce costs. Please see pages 101-103, 115 of 2023 Sustainability Report the depuration plants which byproducts (sludge) can be more efficiently managed so to allow the expansion of the business. Wastewater is also cleaned up by Hera through phytodepuration (see page 119 of 2023 Sustainability Report). Furthermore, industrial wastewater is addressed through a wide platform of assets (see pages 106-108 of 2023 Sustainability Report).

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



Wastewater treatment

Hera Group has depuration plants to treat both industrial (through Group company Hasi) and household wastewater (see pages 93-94 and 101-102 of 2023 Sustainability Report). Hera has also a Waste to Energy plant dedicated to treatment of liquid hazardous waste (one of the few plants in Italy). Efficient depuration plants (energy efficient and reducing landfill use for sludge; see pages 362-364 of 2023 Sustainability Report) imply significant energy savings and enhance the scope of Group's "Full waste services" (includes management of all waste issues and treatment/disposal only; see page 92 of 2023 Sustainability Report) providing a broader scope for value added services. Depuration plants realized as of today has brought to nil Hera's fines paid (see page 118 of 2023 Sustainability Report) that is the lowest amount among peers. Furthermore, depuration plants guarantee a service standard requested even in areas with less than 2,000 citizens and the increase of tariff Technical and Quality premiums (see pages 113-114 of 2023 of Sustainability Report).

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



Other

Several other initiatives to reach "cost efficiencies" are also pursued permitting Hera to create value both financially by reducing emissions, saving resources and enhancing energy efficiency. For example, Hera inputs costly water into the network but invoices to customers less than the water input (due to leakages or incorrect metering of consumptions). Please see "non-invoiced water" on page 105 of 2023 Sustainability Report. To reduce this issue and increase revenues, Hera works on detecting hidden leakages (see at page 179 of 2023 Sustainability Report).

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



Water

- Water supply
- Industrial Water
- Environmental Services
 - Waste & recycling
 - Renewable energies
 - Environmental consulting
 - Other

Waste & recycling

Waste recycling is crucial being plant expansion authorizations difficult to be obtained (recycling allows to spare treatment plant capacity) causing growing trend in treatment prices. Recycling, reusing, extracting energy content from waste or from GHG emissions, to reduce landfill disposals, allow revenues expansion. Hera is Italian leader in waste treatment with about 100 of widespread production plants, described at pages 52-57, 92-100 of 2023 Sustainability Report. Even though advanced sorting plants are built, and some UN Global Goals have already been met (page 90 of 2023 Sustainability Report), Hera is further expanding waste sorting among retail and business clients (see pages 80-93 and 93 of 2023 Sustainability Report) through several communication campaigns activities (page 372), setting up new smart collection containers to implement a tariff system rewarding retail customer's waste recycling and targeting 77% of separate waste collection. See pages 77, 81 and 372 of 2023 Sustainability Report

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Renewable energies

Hera started up a first Biomethane plant (organic waste's biogas is transformed into methane) in 2019 which has almost zero emissions and the residual compost is 100% recycled in agriculture. Hera business plan to 2027 target to expand biomethane gas plant. Biomethane plant is a perfect example of circular economy: from waste to gas directly used to heat up apartments (or fuel for vehicles). These plants are awarded with incentives exploiting renewable sources. See pages 9, 29, 38-39, 41-42, 52-54, 56-57, 62, 69, 76, 93, 98, 144, 194, 299 of 2023 Sustainability Report

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



Environmental consulting

Hera provides business customer consulting services to manage every issue on waste management and help to implement waste management in a "circular economy model". A "full waste service" is made available to business clients to reduce their waste production, improve waste recycling or reuse, reduce treatment and disposal costs, build on site plants to manage waste, clean up polluted sites, etc. See pages 94-95 of 2023 Sustainability Report

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>



Other

Circular economy is an issue becoming more and more relevant for companies' especially regarding plastic waste products (and compulsory in Europe nations following the European Directive on the Plastic strategy). Aliplast (Hera Group) is one of EU main players in PE and PET plastic recycling. Hera business clients can embed in their productions their own recycled plastic (treated by Hera-Alipast) becoming in this way "circular". Aliplast calculates carbon footprint from activities to measure benefits on climate change. EU directive application in EU countries that will force industries to produce plastic product using recycled plastic. Progressive introduction of EU directive in national laws and progressive enhanced commitments taken by industries (as Tesco, Coca-Cola, Danone who have already taken commitment in this regard) are the drivers of business further m/l term potential of expansion. See pages 96-97 of 2023 Sustainability Report for more information

<https://eng.gruppohera.it/documents/1514726/0/Sustainability+Report+2023+-+NFS+%281%29.pdf/21e6bcc4-6c0f-3f87-d1c3-80f524faa1f5?t=1712606945821>

