



SUSTAINABLE
**WATER &
ENERGY**
SOLUTIONS
NETWORK



HIGH-LEVEL DIALOGUE ON
ENERGY
UNITED NATIONS, NEW YORK, SEPTEMBER 2021

Energy Compact of the Sustainable Water & Energy Solutions Network

Canal de Isabel II

24th September 2021

Mr. Pascual Fernández, CEO, Canal de Isabel II, Spain



7 AFFORDABLE AND
CLEAN ENERGY



Comunidad
de Madrid

Canal 
de Isabel II

Cuidamos el agua, cuidamos de ti



Canal de Isabel II *key figures*

Region of Madrid

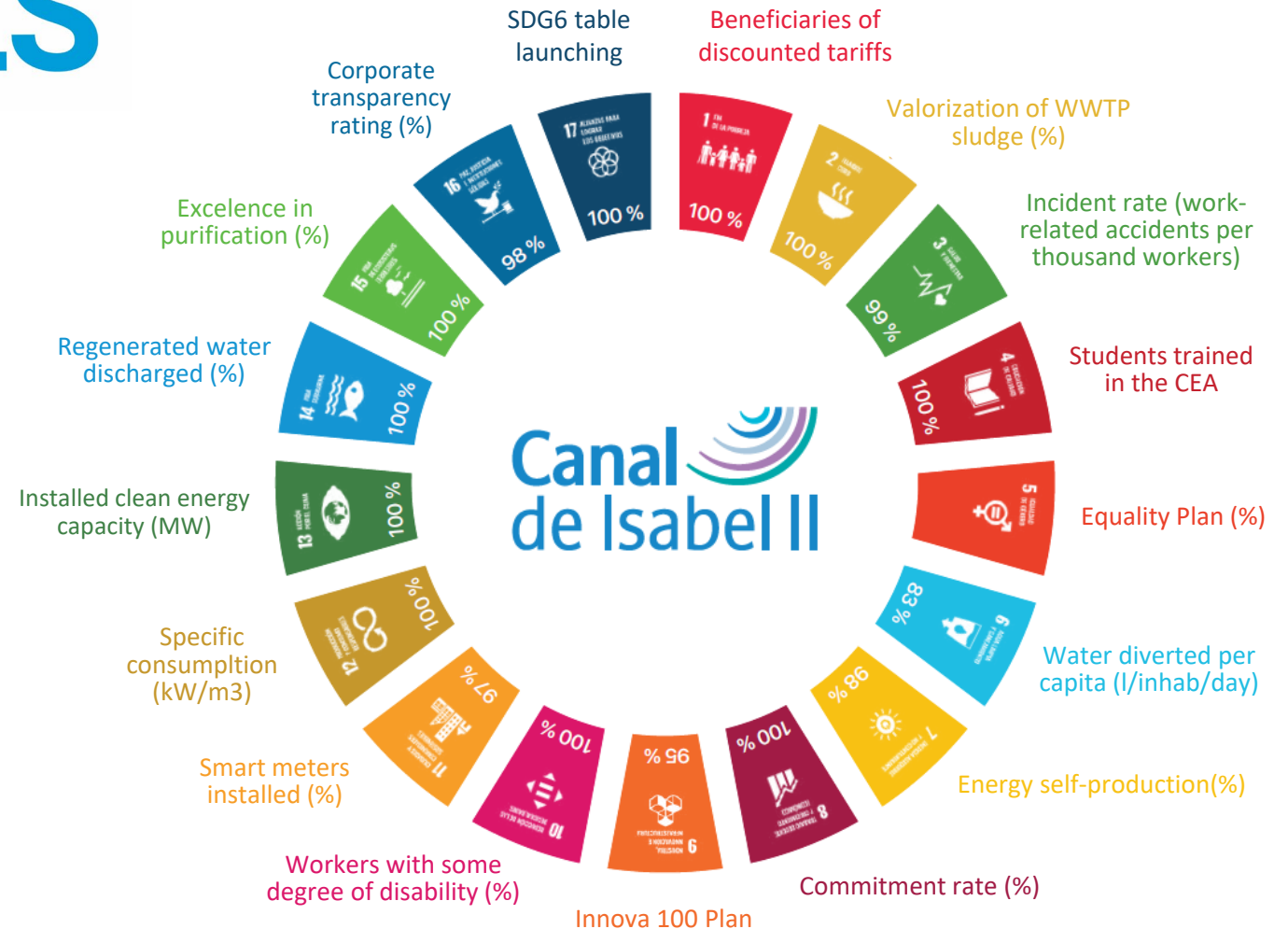
- Canal de Isabel II is a 100% public company responsible for the integral water cycle in the Region of the Community of Madrid
- Depends on the **Ministry of Environment, Housing and Agriculture** of the Community of Madrid
- 6.8 million inhabitants served (supply / sanitation)
- 8,073 km² in area
- 179 municipalities
- 13 reservoirs and 488.27 hm³ of water derived for consumption
- 157 wastewater treatment plants (WWTP) and 465,68 hm³ of water treated
- 2,924 employees



SUSTAINABLE DEVELOPMENT GOALS

Our 2030 strategy

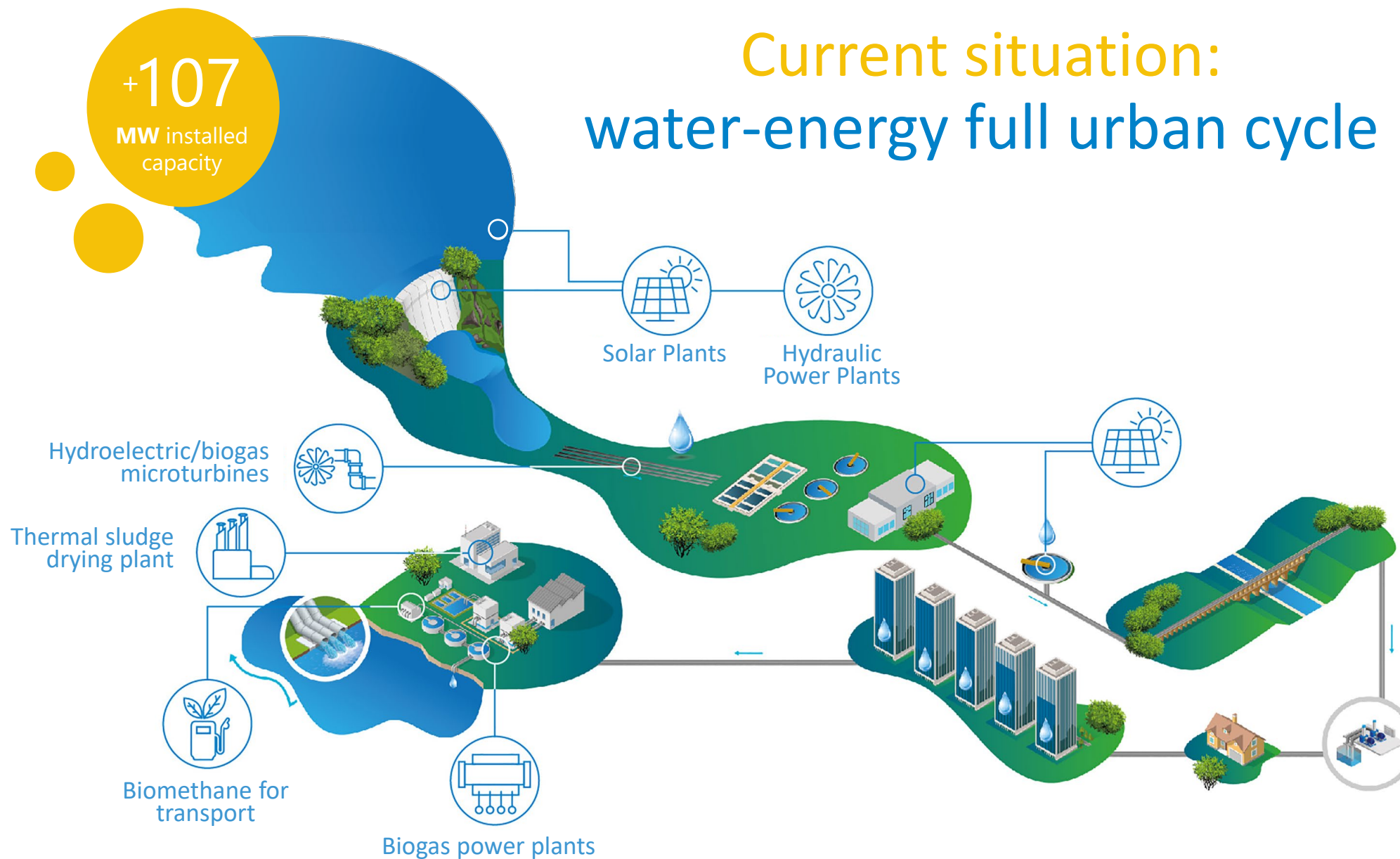
- Full integration of SDGs in our strategy plan
- More than 100 actions working on targets
- Measuring the progress with an ad-hoc tool
- Quarterly communication on website
- International benchmarking groups
- Workshops with employees for prioritization
- Sustainability report based on SDGs



+107

MW installed capacity

Current situation: water-energy full urban cycle



Current situation: Power generation and Consumption

2018

Production: **312.2 GWh**
Consumption: **462.4 GWh**
% Self-production: **67.5 %**

2019

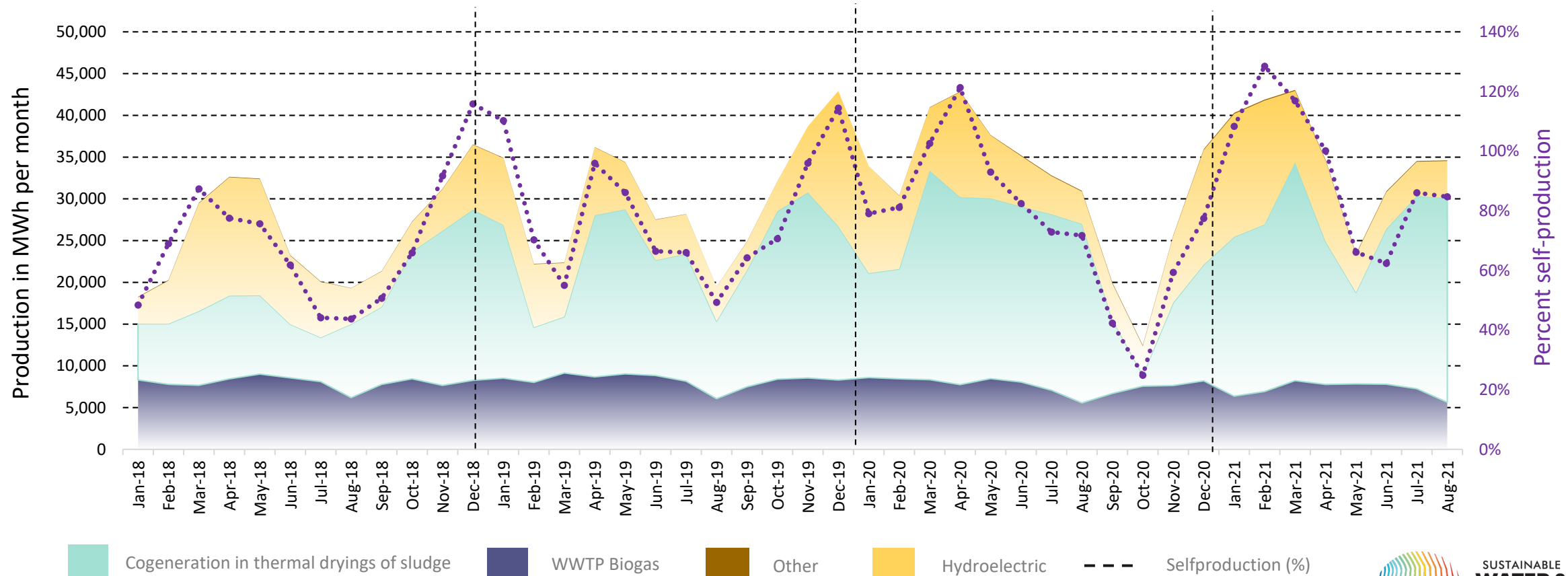
Production: **363.9 GWh**
Consumption: **467.3 GWh**
% Self-production: **77.9 %**

2020

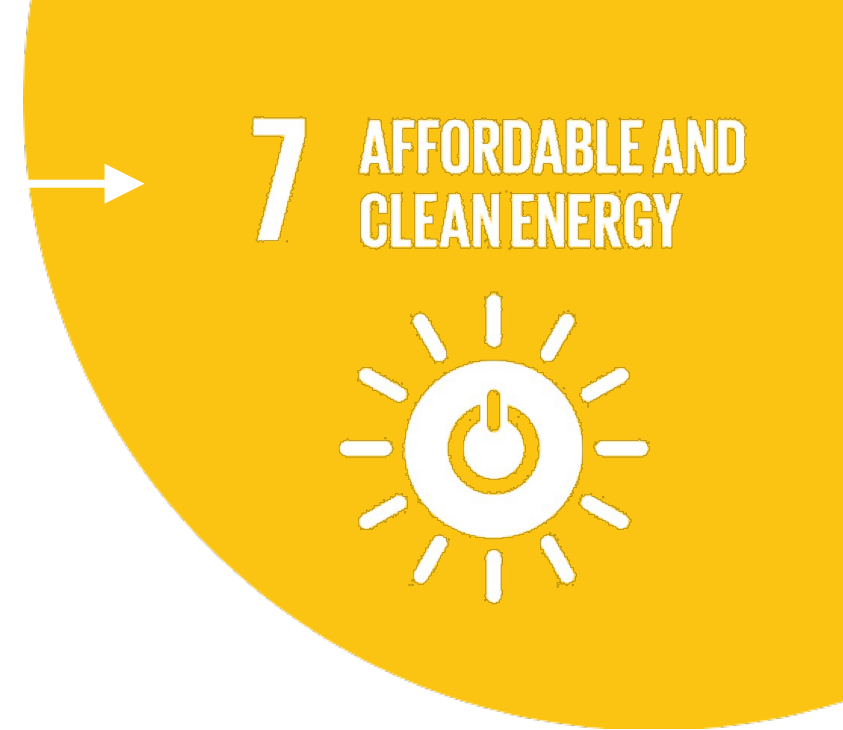
Production: **378.8 GWh**
Consumption: **514.0 GWh**
% Self-production: **73.7 %**

2021 (august)

Production: **283.4 GWh**
Consumption: **309.4 GWh**
% Self-production: **91.6 %**



Canal de Isabel II's COMMITMENTS on



1. By 2030, to **produce 100% of the electricity** necessary to self-supply the Company's activities (and this electricity to be renewable and/or clean). For this purpose, we will **increase the installed capacity** of electricity production **from 107 to 157 megawatts**.
2. To increase the company's **energy efficiency** by 2025. Our goal is to **save 6.8%**, that means about 34,830 MWh in relation to base consumption.
3. To increase activities that **encourage the circular economy**, as green hydrogen production, sludge valorization to produce fertilizers or biofuel for vehicles.
4. To **carry out development cooperation actions** to improve renewable energies production and energy efficiency of the integral water cycle in developing countries.

Canal de Isabel II's commitments comply with some of the targets of SDG 7: especially targets: 7.2; 7.3 and target 7.a

Commitment 1: 100% self-production / increasing our installed capacity

SOLAR PLAN

157

*MW installed
by 2030*

This plan is being developed with the aim of boosting energy production through highly efficient renewable generation sources to reduce network consumption and thus contribute to mitigating greenhouse gas emissions.

The objective of the plan is to maximize existing synergies in the water-energy nexus, so it will aim to take advantage of existing available surfaces in any location for which no other use has been foreseen, including roofs, water tanks and water reservoirs.

*It is an ambitious plan that aims
to install 49 MW.*

Commitment 2: Energy Efficiency

Our goal is to save 6.8% of the energy by 2025, that means about 34,830 MWh in relation to base consumption. We relay on:

- **Energy Hub:** Improvement of the management of the information related to energy issues. We are working on a System will integrate energy information from different sources in a common data repository to feed applications that support decision-making on energy efficiency, purchase and management of electricity contracts. and investment in renewable energy.
- **Development of energy efficiency audits and implementation of measures.** These audits will make it possible to detect savings and determine which is the best measure of energy saving and efficiency specific to the needs of each specific installation.

We believe in energy efficiency.



Commitment 3: *Circular Economy*

- **Reuse Water.** We believe wastewater recycling constitutes an essential component of the comprehensive management of water resources. In 2020 we have produced 13,14 hm³.
- **Biogas:** We produce more than 90 GWh/year of electricity that is consumed in our Wastewater Treatment Plants. It is 100% removable and produced and consumed *in situ*.
- **Biomethane.** We are converting biogas into biomethane to be used in our fleet of vehicles.
- **Green Hydrogen.** We are developing a pioneering plant in Europe to obtain Green Hydrogen using reclaimed water.
- **Fertilizer Plant.** We have the largest phosphorus recovery plant in Spain, in the form of struvite, a compound with a high fertilising capacity.



Our strategy is to promote the Circular Economy aiming the decarbonization of our activity



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The Corporate Group Canal de Isabel II consists of 20 companies in Spain and Latin America

Commitment 4: international cooperation projects

We are involved with **UNDESA** in the project:

“Sustainable Water and Energy Solutions: Supporting the implementation of the 2030 Agenda for Sustainable Development through an integrated approach to water and energy”.

We believe our participation in this partnership will lead us to the development of energy projects like we have already done for #SDG6.

On this matter, we’ve been awarded for an EU-WOP Collaboration project with Sedapal, which entails water regeneration technologies, and a tracking and monitoring system for COVID-19 in wastewater in Lima (Perú).



MONITORING AND REPORTING OUR COMMITMENTS

Every year Canal de Isabel II prepares a **Sustainability Report** that contains the annual strategy developed by the company, as well as the actions taken to meet our commitments.

This document follows the Global Reporting Initiative (GRI) standards for reports of sustainability and includes recommended detailed information on the largest part of its content.

Specific reports will also be prepared to follow up and monitor compliance with the commitments for the following years.



https://www.canaldeisabelsegunda.es/documents/20143/8022686/Informe_Sostenibilidad_2020.pdf/606fa83f-d763-251a-e836-6bcd90f0d5ba?t=1630494531664

There is a strong Interrelation between SDGs.
Canal de Isabel II has a robust commitment
with sustainable development and has fully
integrated SDGs in its Strategic Plan.

Our Strategic Plan leads to the
implementation of sustainable solutions in all
areas of our activity.



*We firmly believe that it is time to act and seek a
more sustainable future for the next generations.*





www.canaldeisabelsegunda.es

If you require any further information, please feel free to contact us:

contacto@canal.madrid

We take care of the water, we take care of you