

The region generates 410,000 tonnes of sludge from the treatment of wastewater, but it's all dried and reused.

Canal de Isabel II Allocates €22.4 Million for Gas Supplies for Recovering Sewage Sludge

- It needs 811 gigawatt-hours of natural gas to treat it at the South and Loeches WWTP facilities.
- Its energy production from cogeneration would serve to supply 200,000 people a year.

07JAN20 – The Madrid Region will invest €22.4 million for the supply of natural gas to the Loeches and South thermal sludge drying plants. Canal de Isabel II's call for tenders provides for an initial period of one year, with the possibility of a three-month extension.

The purpose of the contract is the supply of 811 gigawatt-hours of natural gas. Of these, 300 will be used for thermal drying at the Canal de Isabel II sludge treatment plant in Loeches. This facility, opened in 2010, sanitises the sludge produced in the public company's wastewater treatment plants (approximately 70,000 tons per year) and generates electricity.

The cogeneration engines use this gas to produce the heat to dry the sludge from the wastewater treatment plants (WWTP) and also generate about 97,000 megawatt-hours of electricity. Of this electricity production, 12% covers the plant's own energy requirements while the rest is delivered to the grid.

The remaining 511 gigawatt-hours will be used to heat and dry the sludge processed at the WWTP South facility owned by Madrid City Council but managed by Canal de Isabel II since the end of 2018. The plant receives the sludge generated by the wastewater treatment plants for drying, sanitising and recovery for use in agriculture, which represents about 220,000 tons annually.

Every year, the Madrid Region generates 410,000 tons of sludge from wastewater treatment. Subsequently, after thermal drying treatment, it is reused as agricultural fertiliser, compost or as replacement fuel in cement plants.

While drying the sludge, the two plants together produce 200 million kilowatt hours of electrical energy annually, thanks to their high-efficiency cogeneration systems and gas engines and turbines. This is enough to supply electricity to a population equivalent to that of towns such as Móstoles or Fuenlabrada.