Case study

Wastewater Treatment – Gabal el Asfar, Cairo, Egy[pt

Project Identification : SUEZ Gabal el Asfar Stage 2	
Where (country/City):	Cairo, Egypt
When and contract length :	The contract came into effect on 1 March 2021. Contract length: 4 years
Goal: Construction and/or Operations?	Operation and maintenance
Scope: Water/ Wastewater?	Wastewater
Scope: Plant and or Network?	Plant
People served:	The plant treats the wastewater of 5 million people in Cairo, Egypt.
Briefly describe the project	
SUEZ designed and built the Gabal El Asfar plant in Cairo, (stage 2). The new contract signed in 2021 enables SUEZ and its partner, Arab Contractors, to operate and maintain the two treatment lines for four years and an overall amount of €40 million, of which €28 million is attributed to SUEZ. The two treatment lines have a capacity of 500,000 m³ per day each, treating wastewater for almost 5 million inhabitants. The contract also includes the rehabilitation of the plant's supervision and electricity production systems. SUEZ carries out optimization work to enable the facility 65% energy self-sufficiency with the production of electricity from the biogas generated by the treatment of sewage sludge (electricity production through digestion and cogeneration is estimated at 56,000 MWh per year). The electricity produced prevents the emission of 28,000 tons of carbon equivalent per year, thus contributing to the reduction of the carbon footprint of the installation.	
Is this project unusual or different compared to others?	
Station providing water and sludge treatment with an important energy self- sufficiency.	
What have been the major outcomes or success so far?	
In the first year, increased of the energy self-sufficiency beyond contractual engagements	

Contribution to the United Nations 2023 Conference themes	
1) Which Interactive Dialogue themes does the project contribute to	
Water for Health: Access to safe drinking water, hygiene and sanitation	YES. The plant treats the wastewater for 5 million people
Water for Development: Valuing Water, Water-Energy-Food Nexus and Sustainable Economic and Urban Development	YES. These activities meet the growing needs of the urban agglomeration in terms of wastewater treatment. Treated water is reused for agriculture.
Water for Climate, Resilience and Environment: Source to Sea, Biodiversity, Climate, Resilience and Disaster Risk Reduction	YES. These activities avoid 28 000 tons of carbon emissions equivalent / year and achieve 65% energy self-sufficiency by producing its own energy from sludge treatment.
What topic of the "Global Acceleration Framework" does the project contribute to?	
Optimized financing – did you improve targeting or utilise existing resources more efficiently, or mobilise additional funds	YES – Strong ownership, financing from government.
Capacity development - did you create new jobs or developed local people's skills and talents?	YES. 15 years of technology and know-how transfer, creating fertile ground for Egyptian expertise. Today, out of our 300 employees in the country, only 2 are expatriates. Strong local development.
Innovation – how have you used innovation and technologies to make the service better?	YES. The contract includes optimization works to enable the plant to increase its energy self-sufficiency to 65%/70% with the production of electricity from the biogas generated by the treatment of sludge. Due to increasing prices in Egypt, the government interested in energy consumption reduction.
Has the project in any way supported the development and involvement of young people and/or supported gender equality, and if yes, how?	
Women are involved in the project and encouraged to accept operational functions.	