

Técnicas Reunidas selected for a major engineering project in Indonesia and for an emissions reduction project in Canada

Técnicas Reunidas has been selected for two key projects: an engineering project for the design of a large refining and petrochemical complex in Indonesia and a power project in Canada.

Engineering services for Tuban Project (Indonesia)

- **Técnicas Reunidas will design a state-of-the-art refining and petrochemical complex in Indonesia.**
- **The project will employ an average of 500 engineers during its execution.**
- **The plant will maximize the conversion of residual products into value added ones.**
- **The award recognises the leadership of TR in executing high value-added engineering services for complex oil and gas processing plants.**
- **Further consolidates TR's position in the Asia-Pacific market.**

Emissions reduction project for Suncor (Canada)

- **Técnicas Reunidas has been awarded by Suncor a contract for the execution of a major cogeneration plant, in a 50% partnership with Ledcor Group.**
- **The cogeneration facility will provide reliable steam necessary for Suncor's operations and generate 800 megawatts of excess power for the Alberta electrical grid.**
- **The project will reduce greenhouse gas emissions by a 25%, sulphur dioxide emissions by 45%, nitrogen dioxide emissions by 15% and will lower water consumption by 20%.**
- **The project represents a new step that consolidates TR's presence in Canada.**

Basic Engineering Design and FEED for Tuban Project (Indonesia)

A joint venture of Indonesian state oil and gas company PT Pertamina (55%) and Russian PJSC Rosneft Oil Company (45%), has selected Técnicas Reunidas for executing the Basic Engineering Design (BED) and Front-End Engineering Design (FEED) for its proposed mega project at Tuban, East Java, Indonesia. The complex consists of a greenfield refinery (300,000 barrels per day), an aromatics complex (1.3 million tonnes per day) and an integrated petrochemical plant for the production of ethylene (1.1 million tonnes per day).

Técnicas Reunidas' scope is to develop the BED and FEED services of all the Open Art Units, Utilities and Offsites, as well as to supervise the development of all the licensed units process design packages and deliverables for the entire complex.

This project will employ an average of 500 engineers for a total duration of 21 months, with more than 700 engineers working at the peak.

The plant is to become one of the most technologically advanced in the world, maximising the conversion of residual products into value added ones, with the aim of fulfilling the most stringent environmental requirements, minimizing emissions and reducing waste by-products. The scope includes

several environmental processes as a Sulphur Recovery Plant, Sour Water Stripping Unit, Amine Recovery Unit and Waste Water Treatment Plant.

This award recognises the leadership of TR executing high value added engineering services in complex oil and gas processing plants and further consolidates TR's position in the Asia-Pacific market.

The objective of the Tuban investment will be to meet the energy needs of Indonesia at a reasonable cost and with the highest standards of safety, sustainability and respect for the environment.

The project awarded is integrated in Pertamina's Refinery Development Master Plan, which consist of the expansion of four refineries and two grassroots refinery projects. For Rosneft, the project is a significant element of its strategy to strengthen its presence in the market for petroleum-based products in the Asia-Pacific Region.

Emissions reduction project contract for Suncor

Técnicas Reunidas has been awarded, in a 50% partnership with Ledcor Group, a contract by Suncor for the execution of a major cogeneration plant for the Coke Boiler Replacement Project.

The project consists of the replacement of three petroleum coke fired boilers with two natural gas cogeneration units at Suncor's Oil Sands Base Plant, located North of Fort McMurray, Alberta, Canada.

The cogeneration facility will provide reliable steam necessary for Suncor's operations and generate 800 megawatts of power, that will be transmitted to the grid, providing reliable, baseload, low-carbon power, reducing the emissions intensity of the Alberta electrical grid.

According to figures provided by Suncor, from current performance, this project will reduce greenhouse gas emissions by a 25%, sulphur dioxide emissions by 45%, nitrogen dioxide emissions by 15% and will lower water consumption by 20%.

The scope of the work awarded to Técnicas Reunidas and Ledcor Group includes the engineering, procurement, construction, commissioning and testing for the installation of two assigned MHPS 501JAC gas turbines, their corresponding heat recovery steam generators and the related auxiliary systems for its interconnection with the utilities system.

The project represents a new step that consolidates TR's presence in Canada, where it has been executing projects since 2012, and is the second natural gas cogeneration project with Suncor.

About Técnicas Reunidas

Técnicas Reunidas is one of the main international companies for Engineering and Construction in the sectors of oil and gas, refining, petrochemical and energy generation and has a wide variety of clients around the world. Since 1960, TR has designed and constructed more than 1,000 industrial plants in over 50 countries.

Including these two new projects, accumulated awards for Técnicas Reunidas for 2019 year-to-date have reached 4.730 million euro.