

Ecopetrol selects Honeywell technology for carbon capture study in Colombia

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Honeywell has announced that it has been selected by **Ecopetrol S.A. (Ecopetrol)**, an integrated oil and gas company in Bogotá, Colombia, to develop a pre-feed engineering study for a Honeywell™ Advanced Solvent Carbon Capture (ASCC) modular demonstration unit, which will be used to evaluate carbon dioxide (CO₂) capture from **Ecopetrol** fluid catalytic cracking (FCC) units.

FCC units are key conversion process units within refineries that enable the production of gasoline and propylene. FCC units are also significant sources of CO₂ emissions, accounting for 15 – 20% of overall emissions in a typical FCC-based refinery, including **Ecopetrol**'s refineries. Overall, the global refining industry produces approximately 3% of all CO₂ emissions.

Honeywell UOP's ASCC technology has been designed to capture CO₂ from post-combustion flue gases, which are more challenging to treat due to the low CO₂ concentration and low pressure inherent in these sources. In the ASCC process, CO₂ is absorbed into an amine solvent and then sent to a stripper where CO₂ is separated from the solvent and then transported to be utilised or stored geologically. Honeywell's ASCC technology is specifically designed for post-combustion flue gas applications, enabling greater than 95% CO₂ capture. This technology can be retrofitted within existing plants or included as part of a new installation.

The design target of the demonstration unit is to capture 30 tpd of CO₂ from **Ecopetrol** FCC flue gas. If implemented, the demonstration unit will provide valuable information into the performance of this technology in reducing FCC emissions, with learnings that can be used to inform deployment of commercial-scale units in FCC service.

Ecopetrol is the first company in the oil and gas industry in Latin America to set the goal of achieving net zero carbon emissions by 2050 for Scopes 1 and 2. As a mid-term target, by 2030 **Ecopetrol** seeks to reduce Scope 1 and 2 emissions by 25%, as compared to 2019.

Honeywell's ASCC technology can help meet these goals.

"The use of Honeywell's ASCC technology can effectively reduce **Ecopetrol**'s environmental impact by helping to prevent CO₂ emissions from entering the atmosphere," said Barry Glickman, Vice President and General Manager, Honeywell Sustainable Technology Solutions. "Honeywell's ready-now ASCC technology produces high-purity, storable CO₂ and can help companies worldwide meet their carbon reduction goals."

Today, 15 million tpy of CO₂ is being captured and used in storage/utilisation applications through Honeywell's CO₂ solutions process expertise. Current Honeywell customers have the capacity to capture 40 million tpy of CO₂ through installed projects worldwide that utilise Honeywell CO₂ technology.

Honeywell is committed to achieving carbon neutrality in its operations and facilities by 2035. This commitment builds on the company's track record of sharply reducing the greenhouse gas intensity of its operations and facilities, as well as its decades-long history of innovation to help its customers meet their environmental and social goals. About 60% of Honeywell's new product introduction research and development investment is directed toward products that improve environmental and social outcomes for customers.

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