

Gas-to-power gains momentum on SA energy scene

Up to now, gas-fired generation projects has been under the radar in filling the country's electricity shortfall. But with the race to supply 2,000MW between 2019 and 2022, the government's recently launched risk mitigation independent power producer procurement programme (RMIPPPP) has stirred interest with a number of private players in the sector.



Photo: Martin Adams

While the longer-established renewable energy independent power producer procurement programme (REIPPPP) is delivering considerable results in solar and wind energy generation, there is growing interest in exploring the potential of gas in South Africa's energy mix.

The Department of Mineral Resources and Energy will start evaluating RMIPPPP project bids by the end of 2020. With South Africa's power system being so constrained, government is wanting these projects to start feeding the national grid by mid-2022.

Key aspects of the planning process for these projects includes environmental impact assessments (EIA) and related licensing requirements. Within the tight timeframes envisaged, these need to be carefully managed to avoid becoming stumbling blocks.

"The introduction of strict timelines for the EIA process in recent years mean that while EIAs are generally completed in less time than before, the process leaves very little time for accommodating any changes to the project design," says Nicola Rump, principal environmental scientist at SRK Consulting.

It also requires that a significant amount of work must be completed before the application is actually lodged with the regulator. "Gas-to-power projects need to submit a final scoping study to the Department of Environment, Forestry and Fisheries (DEFF), and this must be approved before the EIA phase can begin. Once the final environmental impact report (EIR) has been submitted, DEFF would decide on the conditions applying to the authorisation," she says.

Environmental impacts

While an important attraction of gas is its lower carbon footprint than coal, SA's dominant fuel source for energy, it is not without its environmental impacts. These include carbon emissions, for which projects would require an air emission license before proceeding.

“Climate change impacts are also becoming an increasingly important consideration in these assessments, especially in the light of South Africa’s commitments to global climate change and greenhouse gas emission agreements – and its emission reduction targets.”

Other impacts include noise and traffic, as well as effects on marine ecology of those projects requiring marine infrastructure. Currently, gas-to-power projects tend to be close to ports to facilitate the supply chain from sea-borne liquified natural gas (LNG).

Rump says that current projects will have to overcome South Africa’s lack of gas pipeline infrastructure, basing their viability on LNG sources being shipped in. Among the advantages of developing a fledgling gas-to-power sector through the RMIPPPP is that this would contribute to the growth of local gas markets – helping pave the way for the installation of costly gas infrastructure. This in turn would hopefully reduce the cost of gas as a fuel and spur the uptake of this cleaner fuel in South Africa’s energy landscape.

For more, visit: <https://www.bizcommunity.com>