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Shell's shale gas plans stir SA controversy

JUSTINE GERARDY | CAPE TOWN, SOUTH AFRICA - Feb 08 2011 06:52

Energy giant Royal Dutch Shell is targeting potential untapped shale gas reserves in coal-hungry South Africa where landowners -- including a Dutch princess -- are readying for a showdown.

Shell applied in December to explore 90 000 square kilometres -- twice the size of Denmark -- for gas deposits in the clay-like shale rock of the arid central Karoo.

"The shale gas potential is quite high, because there is a high volume of shale and therefore the potential for gas development is very big," said Jenny Marot of the state's Petroleum Agency South Africa (Pasa).

But more than 200 people want the application dropped, including landowner Dutch Princess Irene, due to environmental concerns and the use of hydraulic fracturing or "fracking" to release viable deposits if discovered.

The Anglo-Dutch giant, whose 2010 net profits nearly doubled to \$18,6-billion, is one of several companies interested in the Karoo where gas finds in the 1960s were technologically and economically unviable to exploit.

South Africa's petrochemical heavyweight Sasol is in early studies in a joint venture, while American firm Falcon Oil&Gas, and Bundu Gas and Oil are also eyeing additional chunks of the Karoo.

"We have always known that there was gas trapped in shale but it was a whole lot more expensive to extract when you had potential reserves elsewhere of conventional gas," said Shell Africa communications vice president Phaldie Kalam.

"We're now moving from easy to tight gas. It's effectively a sign of the times; as it becomes more economically viable, and the prices are a whole lot better for the commodity, its worth actually using the different techniques and going further and deeper."

But locals fear "fracking", in which water, sand and chemicals are blasted deep underground to force rock cracks and free the trapped gas, will pollute underground water which the barren Karoo is almost entirely dependent upon.

The process is also water intense, a scarce commodity in the inland region.

"Our biggest concern is water and the risk of contamination of that water," said Derek Light, a Karoo attorney who represents 200 people including farmers against Shell and smaller groups against Falcon and Bundu.

"The mineral resources of this country must be exploited for the benefit of our people and at the same token, you need foreign investment. But all we see at the moment is a threat to our people."

With shale gas tipped to make up a fifth of the United States gas supply by 2020, potential harmful effects of fracking on drinking water is subject to a study by the country's Environmental Protection Agency.

Shell, which will submit an environmental management plan to PASA in April, says its track record shows safe use of the technology and that opposing views will be taken into future thinking.

The area's potential will only be known once exploration starts but, if viable, the Karoo will have a major impact on energy supply with early conservative estimates above five trillion cubic feet of gas, said Pasa chief executive Mthozami Xiphu.

"It is potentially much higher than that. If you compare with Mossgas, that's more than five times what is being produced at Mossgas" fields off the Southern Cape coast.

South Africa relies heavily on coal for 95% of its electricity and the government plans to increase gas consumption

from 3% to 10% within a decade.

But Worldwide Fund for Nature South Africa head Morne du Plessis questioned the pursuit of more fossil fuels.

"We're sitting with massive opportunities for renewable energy production above the ground," he said. -- Sapa-AFP