

Staatsolie

BRINGING VALUE BACK HOME





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The national oil company of Suriname is facing a very promising future, with enough hydrocarbon reserves to keep it self sufficient for many years – at the same time it is investing in sustainable energy alternatives

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The Republic of Suriname, with its capital city Paramaribo, is located just north of the Amazon delta on the northeast coast of South America. It is bordered to the north by the Atlantic Ocean, to the west by Guyana, to the east by French Guiana, and to the south by Brazil. This is a country with a rich mining history as one of the major bauxite and alumina producers in the world, however it also has oil, both onshore and offshore. The systematic search for hydrocarbons began in the early 1960s but petroleum development took a leap after 1980 with the set up of Staatsolie, and production sharing service contract models were introduced for the participation of private oil companies in petroleum activities.

All the shares in Staatsolie Maatschappij Suriname NV are held by the government of Suriname. It has two divisions, one that controls the licensing of offshore blocks on behalf of the government to interested companies that include Tullow Oil, Kosmos, Chevron, Petronas and Apache. The other side of the business Staatsolie Production, is much larger and has the job of running the company's many upstream and downstream projects, including its most ambitious ever, the refinery expansion project (REP) that is nearing completion and will dramatically affect the economy of the country. Staatsolie already accounts for some 25 percent of national revenues through the taxes it pays and the 50 percent of profits that it returns in the form of annual dividend. It is a profitable company, and the other 50 percent is reinvested.



Aerial view of the refinery expansion project

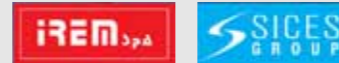
2014 is going to see a step change for Staatsolie, says Rudolf Elias, Director of Refinery & Marketing and Project Director of the REP. However the company has developed very successfully to date, he explains. "We started with the production of heavy crude that we found in a very small onshore oilfield that was of little commercial interest though it was low sulphur crude. We managed it ourselves, growing from around 300 barrels per day (bpd) gradually building up to more than 17,000 bpd that we extract today." This equates to some six million barrels per annum (mbpa), an amount more

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or less equivalent to the annual domestic consumption of Suriname. However the crude oil is mainly exported, since the only refining capacity in the country till now has been limited to producing around 7,000 bpd of fuel oil, plus some bitumen that it exports to neighbouring countries.

The fuel oil and the exported crude generate handsome profits for Staatsolie. Heavy fuel oil (HFO) is sold to the boats that call at Paramaribo and is in demand for electricity generation thanks to its low sulphur content, and because it is derived from shallow sand deposits it is very cheap to produce coming

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The project was started with the first pile driven on 21 February 2012

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“I have had 250 people in training for over a year and they will manage the start up alongside Saipem”

in at under \$5 per barrel, despite the fact that to produce 17,000 bpd Staatsolie has to operate no fewer than 1,400 separate wells. Nevertheless this oil sells at world oil prices, and in 2012 Staatsolie broke through the \$1 billion turnover barrier for the first time.

The priority for some time has been to add value to Suriname’s crude, rather than exporting the bulk of it, and produce the premium diesel and gasoline needed within the country rather than importing refined product. It took some ten years to finalise the

design for the new \$900 million Tout Lui Faut refinery 20 kilometres south of Paramaribo, in partnership with CB&I Lummus of the Hague. The job was then put out to tender and a contract awarded in July 2011 to the Italian O&G contractor Saipem. After ten months of engineering activities the agreement was converted to a full engineering, procurement, fabrication and construction (EPC) contract with fabrication of the pre-assembled portion of the plant being carried out at the Saipem Arbatax fabrication yard in Italy.

Construction has been proceeding according to plan, says Elias. “We are already 70 percent complete, and we expect the plant to be ready during September. Pre-commissioning is under way, and commissioning started in March, with the utilities coming first, followed by the various units.” A 15,000 barrels capacity vacuum tower is at the front of the process, followed by a hydrocracker that will feed into the diesel and gasoline trains, producing 8,000 bpd of the former and 3,000 bpd of the latter. “Once the new refinery is operating, we will be able to produce 100 percent of the country’s

diesel requirement, all of the bitumen, and 70 percent of the gasoline we need.” There’s also a 300 bpd sulphuric acid by-product, all of which will be exported, he adds.

Once the project was started, with the first pile driven on 21 February 2012, construction went ahead very smoothly. The contractor Saipem is responsible for the commissioning and startup phase, and low sulphur diesel and gasoline, meeting EU Euro V specifications, should be coming out of the refinery by the end of this year. But running the new plant on a nine hectare area to the east of the existing refinery will make many demands

“At the moment we are flying a Cessna quite successfully but now we are being handed a 747, and that is a different animal altogether!”



Rudolf Elias, Director of Refinery & Marketing and Project Director of the REP



In December, Suriname will suddenly have its own petrol and diesel

on Staatsolie. “At the moment we are flying a Cessna quite successfully but now we are being handed a 747, and that is a different animal altogether!”

Best in class systems are being incorporated, such as a Honeywell manufacturing execution system (MES) that he believes will help achieve significantly improved operational readiness, optimising workflows, capturing knowledge, minimising risks, improving safety, and enhancing the performance and agility of the entire operation. “I have had 250 people in training for over a year and they will manage the start up alongside Saipem. These will be assisted by more than 30 very experienced operators I hired from all round the world to assist our people to operate the plant after completion.” The skills that will be transferred in the process will greatly

Did you know?

6 million bpa

Staatsolie’s current crude production

140

Local contractors working on the new Tout Lui Faut refinery

benefit the company and the entire country, he stresses. Of the 2,000 people working on construction at least 70 percent are local Surinamese. And with more than 140 local companies contracted to work at the site, there has been a significant positive impact on the private sector economy too. “We want to make a strong contribution to the advancement of our society,” says Rudolf Elias.

In December, Suriname will suddenly have its own petrol and diesel, and there are just two players in the downstream market. One of these is Staatsolie itself, though a subsidiary called Goto (the word for gold in Surinamese but doubtless a good name for a petrol station serving English speaking customers). Goto runs the former service station networks of Texaco and Chevron: a competing company



Staatsolie predict there will be enough oil to increase production to 25,000 bpd by 2022

“There is no refinery in the region making low sulphur diesel so we have a ready market in French Guyana, Martinique and Guadeloupe”

Sol Petroleum took over the Shell and Esso retail outlets and both will now receive their supply from Tout Lui Faut via a new pipeline that is being installed between the refinery and their distribution facilities.

The HFO will continue to be sold to Guyana and Barbados for electricity generation. “We will also use it in our domestic energy generation,” says Elias. “We already have a 28 MW station that uses our crude, and we are expanding it to 62 MW in March 2014.” Most of the crude produced will thus either be consumed for energy generation in Suriname itself or sold to the local retail stations, though some will still be exported. “There is no refinery in the region making low sulphur diesel so we have a ready market in French Guyana, Martinique and Guadeloupe because they operate under EU regulations and require Euro spec diesel.”

The old refinery will be closed for a few months once the new one is operational, and some of its units mothballed. The plan is to bring those units back into operation at a future date when greater volumes of oil come on stream. Staatsolie holds seven near-shore blocks along the coast and is confident that it will hit oil during a drilling programme starting this year. “We think we will find enough oil to increase our production to 25,000 bpd by 2022. We are doing drilling on our own account, however if we have commercial finds we will approach an experienced partner to speed up production.

The offshore picture in deeper waters is vibrant, with major companies actively drilling. Four wells were drilled in these blocks

over the last ten years but five are expected to be added to this list in 2014 alone. “A lot of people expect big oil and gas finds in our waters,” says Elias.

The refinery is the big story for the moment, but Staatsolie is also very keen to balance its hydrocarbon dependency with some sustainable alternatives. The most promising project is a biofuel plant that will produce ethanol from sugar cane. A successful pilot has been running since 2008 in collaboration with Brazil to test whether sugar cane can be grown successfully on old rice fields. “The sugar content and the tonnage per hectare are surprisingly high,” he says. Now 300 hectares are in preparation and an EPC contract put out for tender to supply a hybrid plant to produce ethanol, with sugar and electricity generation as by-products.

Hydroelectricity and the production of energy using solar, wind and even algae is under consideration. This means that Staatsolie itself is in transformation from being a pure play fossil fuel company to being something a lot greener and more diverse – it is a vision, admits Rudolf Elias, but not one that will divert his focus on delivering the refinery that means so much to Suriname. **BE**

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