

exhaust gas in a combined cycle configuration. For its part, the EMCE plant is based on five 12 MW Pielstick 2.6B diesel engines. Pielstick is a subsidiary of MAN Diesel.

The higher capacity factor at ENERSA reflects the difference in price that each plant has in their power purchase agreements since power dispatch is based in economic factors. The ENERSA plant has a 20-year power purchase agreement, with its electricity price linked to the Platts NY 2.2%. By contrast, EMCE's power purchase

agreement calls for pricing electricity sales in reference to Platts NY 3% and the has a 20 year contract for supply of HFO. Both power purchase agreements run through 2018 and both plants burn 2.2%S fuel oil. See the accompanying table for indicative specifications.

The imported 2.2%S fuel oil arrives at Unopetrol's terminal at Puerto Cortes on the Caribbean coast. Fuel oil moves by truck to the two Terra plants. The ENERSA plant has 120,000 barrels of fuel storage, while the EMCE plant has only 11,000 barrels of storage. ■

Dominican Republic IPP to Burn Less Fuel Oil

A Dominican Republic IPP's fuel oil consumption will continue to decline in line with increased use of gas derived from biomass. Fuel oil use at LAESA's 108 MW plant, located north of Santo Domingo, is seen falling from 1.14 million barrels in 2011 to 711,000 barrels in 2013. Over the same period, the estimated amount of fuel oil displaced by the use of proprietary "Protium" is expected to rise from 143,000 barrels in 2011 to 572,000 barrels in 2013. See accompanying table.

Thus far, eight of LAESA's 11 diesel engines have been converted to run in dual fuel mode (HFO/Protium gas). The remaining three are slated to be converted during the first quarter of 1Q 2013. The LAESA plant is based on four 18V32 Wärtsilä diesel engines (with aggregate

LAESA'S DOMINICAN REPUBLIC PLANT, FUEL OIL CONSUMPTION

(Thousand Barrels)

	HFO Consumption	Amount of HFO Displaced by "Protium" Gas
2008	358,000	-
2009	683,000	-
2010	1,283,000	-
2011	1,140,000	143,000
2012E	997,000	286,000
2013P	711,000	572,000

E= Estimated, P=Projected.

capacity of 30 MW), four 16V32 Wärtsilä diesel engines (with an aggregate capacity of 28 MW), and three Wärtsilä 18V46 diesel engines (with an aggregate capacity of 50 MW). A 10-15 MW combined cycle unit is slated for addition in 2013.

Local Refidomsa supplies 1.5%S fuel oil to the LAESA power plant. The fuel oil is priced in reference to Brent crude. The plant receives daily deliveries by truck of around 40,000 gallons. The LAESA plant has four tanks with aggregate storage of around 31,000 barrels. See the accompanying table for LAESA's fuel oil specifications.

"Protium" gas was developed by LAESA with the assistance of the US-based National Hydrogen Foundation. The National Hydrogen Foundation has pioneered a new system for biogas production. This gas cleaning process produces no CO2 or SO2 and can use a variety of carbon based feedstocks including, but not limited to, biomass, sewage, bamboo, and tires. ■

DOMINICAN REPUBLIC, LAESA POWER PLANT

