Eidesvik's *Viking Energy*: it is one of a number of dual-fuelled vessels that have influenced Harvey Gulf's decision to introduce fuel substitution. The vessel runs on either liquefied natural gas or diesel.

US offshore support vessels to use fuel substitution

New Orleans-based Harvey Gulf to outfit two vessels with dual-fuel capability

BARRY PARKER — NEW YORK

ONE corollary of the expected surplus of gas in North America is the emergence of gas as a substitute for other fossil fuels in vessels. Fuel substitution is now set to come to the offshore support vessel sector in the Gulf of Mexico.

Harvey Gulf International Marine, a New Orleans-based OSV owner also in the business of towing drilling rigs around the Gulf of Mexico, has now announced that it will be outfitting two vessels with dual-fuel capability.

The vessels will require an overall investment of $100m and will be designed by STX Marine, which has had a lengthy relationship with Harvey Gulf.

Harvey Gulf chairman Shane Guidry told Lloyd's List the vessels would be built at either Eastern Shipbuilding or Signal. These yards, with facilities in Panama City, Florida and Mobile, Alabama, have long built vessels to serve the offshore trades in the gulf.

Mr Guidry said it cost approximately 50% less to burn liquefied natural gas than conventional diesel.

"The vessels will run purely on LNG for 2,000 miles or 14 days on dynamic positioning then we will flip a switch and the engine will immediately run on diesel fuel."

On rig positioning and platform support assignments, where a vessel must hold a position alongside a rig or structure, dynamic positioning capabilities are increasingly required. Harvey Gulf's existing fleet includes six OSVs equipped with Kongsberg-Simrad DP-2 systems, which are certified by the American Bureau of Shipping.

The logistics of fuel supply remains a challenge, however. In a conference presentation earlier this year, DNV Maritime and Offshore director of operations Kenneth Vareide questioned who would pay for the infrastructure.

Mr Guidry said Harvey Gulf would store and load the LNG at its new terminal being built in Fourchon, Louisiana. "The gas is readily available."

Environmental regulations were described by Mr Vareide as a possible game-changer for the OSV sector, and will continue to drive the economics of building and operating vessels. Use of the cleaner-burning LNG is identified as an option for complying with restrictions on emissions of NOx and SOx in emission control areas.

"The vessels will run purely on LNG for 2,000 miles or 14 days on dynamic positioning then we will flip a switch and the engine will immediately run on diesel fuel"

Shane Guidry, Harvey Gulf chairman

Mr Vareide's calculations of savings from LNG propulsion show a present value differential of $12m, compared to marine gas oil only. LNG fuelling shows a present value advantage of around $4m when compared to using cheaper, but dirtier, heavy fuels and a scrubber fitted for compliance with emissions requirements.

He pointed to developments in Norway, where five OSVs, owned by Mokster, Eidesvik and DOF, all with Wärtsilä dual-fuelled engines, are already serving the North Sea.

DNV identified another five LNG fuelled vessels under construction, with Eidesvik, Solstad, Island Offshore and others are building a similar number of vessels. ■

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Shell moves closer to go-ahead for Beaufort plans

IN THE continuing chapters of a long-running saga, Shell's plans for drilling in the Arctic waters north of Alaska have moved further down the regulatory gauntlet and closer to approval, *writes Barry Parker in New York*.

Its plans for exploration in the Beaufort Sea gained a tentative "yes" from the Bureau of Ocean Energy Management Regulation and Enforcement, the US regulator overseeing offshore drilling on the US continental shelf.

BOEMRE has not yet approved Shell's plans for exploring nearby in the Chukchi Sea. A political component is infused in the agency's actions: the administration of President Barack Obama has struggled to present a positive face on its relationship with the oil industry.

Air quality permits, issued by a different agency, the Environmental Protection Administration, still remain a knotty obstacle because of an intensive public commenting process.

Harvey Gulf International is positioned to support Shell's efforts in the Beaufort and Chukchi Seas through its charters of two OSVs to the oil major, intended to support the drillships *Noble Discoverer* and the Shell-owned *Kulluk*.

One vessel named in Shell's various environmental filings is the 6,140 bhp *Harvey Spirit*, to be deployed shuttling supplies from a base at Dutch Harbor to the drillships and then removing mud cuttings for discharge on to a storage barge. The 4,520 bhp *Harvey Explorer* is also named in Shell's filings.

Harvey Explorer, top, and *Harvey Spirit*: 10 resupply trips from Dutch Harbor during the drilling season.

Both vessels, capable of dynamic positioning with a DP2 designation, are diesel-powered. According to a Shell filing, an estimated 10 resupply trips between Dutch Harbor and the drilling programme assets in the Beaufort Sea will occur during each drilling season.

In the event of an emergency, the Harvey vessels could be pressed into service as part of the response fleet, transporting recovered oil in tanks normally used for transporting mud.

Shell's plans to drill in the Alaskan Arctic during the 2011 summer season (a four-month window) were scuttled earlier this year by the EPA's intransigence; Shell was denied a permit in response to objections that centred on possible emissions from an ice-breaking vessel.

Given the importance placed on air quality in the Arctic, Harvey Gulf's pioneering efforts gaining operational experience with dual fuelling, utilising cleaner burning liquefied natural gas, could bestow a real competitive advantage in the future, in the face of such objections. ■

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Sister drillships hit by slow pace of permitting in US Gulf

THE slowing pace of exploration in the Gulf of Mexico is having a major impact on the fortunes of deepwater and ultra-deepwater drillers, *writes Barry Parker in New York*.

According to a recent Morgan Stanley analysis: "Gulf of Mexico availability has declined, suggesting a surge in rates when permitting ultimately picks up."

Two drillships capable of drilling to 10,000 ft that came to Ensco, following its May 2011 purchase of Pride International, have recently started charters in the gulf.

DS-3 commenced a five-year charter to BP on June 1, at a dayrate over $480,000. Reports suggest that the rig may be on standby awaiting approval of drilling permits.

Six weeks later, in mid July, its sister DS-5 began a five-year deal with Petrobras at the Cascade-Chinook fields, at a rate over $430,000 plus bonus opportunities that could push the rate up to around $500,000 per day.

The Chinook field is the site of the floating production, storage and offloading vessel *BW Pioneer*, from which oil will be offloaded into shuttle tankers owned by Overseas Shipholding Group for transport to refineries along the Gulf Coast. After repeated delays, this project is now set to come onstream in late 2011.

After considerable jousting in Washington, the US Department of the Interior, which oversees drilling in US waters, agreed in mid-August to schedule a sale of leases encompassing nearly 21m acres in the western gulf, off the Texas coast.

The sale, set for December, 2011, will be the first since a sale in March 2010, just prior to the Macondo blow-out, covering 37m acres in the central gulf, primarily offshore Louisiana.

In the upcoming lease sale, minimum bids allowed by the Bureau of Ocean Energy Management Regulation and Enforcement will be raised to $100 per acre (up from the previous level of $37.50) in deeper waters. In the BOEMRE's thinking, bigger investments, with more capital tied up, will hasten the pace of exploration.

Allegations of hoarding lease parcels, following successful bids by oil companies in recent years' lease sales, has been a sore point in the dialogue between industry and regulators.

Noble Paul Romano: back in action at $325,000 per day offshore Egypt.

Additionally, the failure of winning bidders to quickly begin drilling at a time when permits were not constrained has provided fodder for environmentalists seeking to halt further lease sales, arguing that sufficiently unexploited plots have been awarded in past leasing rounds.

Exploratory drilling can lag lease awards by several years. In the near term, the slow pace of new permitting is still causing rigs to leave the gulf.

In early August, Noble announced that its Noble Paul Romano, a US-built semi-submersible rig, won a 180-day contract, with extensions possible if options are exercised, to drill six wells offshore Egypt for Gujarat State Petroleum at a rate of $325,000 per day. The rig had been idle since the summer 2010 drilling moratorium. ■

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