Atlantic Region
Expression of Interest (EOI)/Prequalification
Offshore Supply/Construction-Intervention Vessels
Reference 8.5.2.068

Husky Energy Inc. (Husky) is seeking Expressions of Interest (EOIs) from qualified companies for the supply of various vessel types including:

(1.) Anchor Handling Tug Support (AHTS)
(2.) Platform Supply
(3.) Construction-Intervention

Expectations of companies providing these vessels from both a specification and a management perspective are included in the scope document provided below. Companies can submit responses on any or all of the vessel types required.

Interested companies are required to demonstrate their capabilities and experience via a formal response to this EOI/Prequalification. The questionnaire can be found on the Husky website under Reference No. 8.5.2.068. Responses must be received no later than 3:00 pm on Monday, 18 March 2013.

Husky strongly supports providing opportunities to Canadian and, in particular Newfoundland and Labrador companies and individuals, on a commercially competitive basis. Pre-qualified companies will be required to complete a Canada/Newfoundland and Labrador Benefits Questionnaire at the Bid stage.

Please provide one (1) original and one (1) copy of your formal response no later than Monday, 18 March 2013 at 3:00 pm to the address as shown below:

Husky Energy Inc. Attn: Mark Collett, Procurement Team Lead
Suite 901, Scotia Centre Fax: (709) 724-4034
235 Water Street
St. John’s, NL Canada
A1C 1B6

Please note that any updates to the above noted Expression of Interest/Prequalification will be posted on the website. Please check periodically during the pre-submission period for any updates that may be posted.
General Requirements subject to all vessels:

Modern Ice Class DP2 Vessels for operations on the East Coast of Canada. Vessels must be suitable to work in the North Atlantic winter environment with particular consideration to cold weather operations, sea ice and high sea states. Vessels shall have capabilities and certification to support field operations in the role of Safety Standby vessel.

Compliance: Vessel must be Canadian registered and Canadian crewed consistent with the employment provisions of the Atlantic Accord Implementation Acts. Vessel must comply with all applicable laws, regulations and standards for offshore vessels to operate in Canada, and to perform coastal trading within Canada.

Crew: The Master and crew shall be trained and certified in accordance with the requirements of Canadian Legislation. Newfoundland crews are preferred and Canada Newfoundland content will be considered in the evaluation process. Where qualified and certified personnel for strategic positions are not available a succession plan may be considered.

Vessel Owner Management: Respondents shall include a corporate profile and identify the key shore side individuals responsible for the day to day operation of the vessel. Vessel owner shall indicate how local shore support, in whatever form may be required, will be provided to address any issues or concerns raised by the charter in a prompt and agreed time frame. This will include supporting charterer with any technical support for special tasks related to the vessel. Expectation is that there will be local shore support for operations, technical, HSEQ and crewing in addition to commercial contract management.

Inspections/Surveys/Audits: Vessel owner shall make vessel available to carry out inspections, surveys, or audits of any type and provide the necessary support required. Vessel owner will arrange vessel availability at mutually agreed time.

Maintenance Records: Owner shall provide all maintenance records and vessel logs for review, as well the owner shall advise charterer of any conditions to any certificate with corrective action. Particular attention will be placed on the AHC crane maintenance and the Anchor handling and/or tow winch operational status.

Dynamic Position Classification/Equipment: DP2 system with two GPS, Dual RADius 1000, HPR and Fanbeam. Vessels shall be equipped with dynamic positioning equipment corresponding to equipment class 2 or 3, (IMO / MSC Circular 645, Chapter 2 – Equipment Classes) with class notation DYN POS AUTR or AUTRO issued by DNV or equivalent.

Vessel shall have the ability to perform 24 hr DP activities with a two person DP bridge watch system. The DP Bridge and engineering watch keeping personnel shall meet the minimum requirements of IMCA M 117; The Training and Experience of Key DP Personnel. The bridge DP watch keepers shall be comprised, as a minimum, of 1 Senior DPO and 1 Junior DPO as defined by IMCA guidelines.

Ice Class: IC minimum however Polar Class 6 or equivalent preferred.

Fuel Monitoring and Management: Nautical Controls Solutions FuelTrax fuel monitoring system.

Environmental Consideration: Green Vessel Design preferred.
**Standby/Rescue:** Vessel to have a valid LOC and satisfy all applicable Canadian Regulations and Standards for Dual Safety Standby role with a minimum survivor capacity of 275 persons, 2 motion compensated davits, 2 FRC, a Dacon Scoop and direction finding PLB system meeting charterer’s requirements.

**Offshore Worker Transportation:** MTRB for transportation of offshore workers; capacity shall be equal to statutory complement less the crew.

**Fire Fighting:** Vessel fitted with minimum DNV FiFi 1 fire monitors or equivalent. Preferred FiFi I/II.

**Ice Management:** Vessel must have the ability to attach a floating hawser or ice berg tow net configuration around an iceberg and apply sufficient force to deflect the iceberg. Have motorized storage reels capable of storing 1200 meters of 8 inch tow rope and an ice berg tow net. Vessel must be capable of deflecting bergy bits by prop washing. A bow mounted water cannon would be considered an asset.
Construction / Intervention Vessel

General Description:

Vessel will have a primary role as a Construction / Intervention vessel supporting subsea intervention and installation activities. Consideration will be given for capabilities to support a secondary role as a Safety Standby vessel. And, have the capacity to remain at sea for extended periods; minimum of 4 – 6 weeks.

Vessel Age:  Not greater than 5 years; Newbuild considered.

Classification:  Vessel must be classed by a recognized international classification agency, (IACS member).

Scope of Supply:

Vessel with vessel crew and ROV crew

Technical Specifications:

Primary Role:

AHC Crane:  Active Heave Compensated (AHC) crane with minimum SWL of 200t. Crane shall have capacity to reach all areas of the working deck ensuring there are no lifting dead zones. A Secondary deck crane may be considered if required.

Subsea Lift management:  Multiple deck winch capability for tag line control of Subsea lifts due to higher sea states. Vessel design should minimize lift height for over-boarding subsea equipment. Consideration will be given where deck area has removable rails or alternate design for flush over boarding of equipment and heavy lifts; without gunwale interference forcing loads to be lifted over them. This capability is a critical consideration due to impact in the ability to work with large / long structures in the North Atlantic Working environment.

Berth Capacity:  Minimum berth capacity for 75 persons

Deck Area:  1000 m²

Work Class ROV System:  Two Work Class ROVs complete with two launch and recovery systems (LARS) designed to minimize vessel motion effect for deployment/recovery operations in a minimum significant sea state of 5 meters.

ROVs shall be minimum 150 HP vehicles with full complement of Subsea Tooling – ROV to be mounted in Hangers or covered locations capable of working in all weather conditions. Deployment and recovery in a minimum of 5m significant Sea State either in heavy weather heave compensated overboard launch systems, or, through moon pool launches with aerated moon pools and heavy weather heave compensation.

Moon Pool:  Considered an asset.

Power Supply:  Generator configuration to supply clean energy to the deck spread while maintaining full Class 2 DP status.
**Communications:** Communication system capable of streaming video and voice communication without interruption and a fiber optic internal communication system.

**Vessel to Shore Communications:** VSAT Satellite communications 1MB or better, dedicated SCPC. C-Band is preferable, KU-Band is acceptable. Alternate/backup data and phone communications. Ability to communicate over wi-fi with other Rigs/Vessel in close proximity or ability to add such a network.

**Vessel Onboard Network:** Fiber optic backbone between main vessel locations (ie. office space and ROV location) with the ability to provide speeds of 1gb to the desktop. Rooms, offices and bridge wired back to a central location, climate controlled for network/server rack with a fiber connection to the backbone.

**Wireless network for mobile devices:** Conference area with audio visual equipment and available network drops. Video conference equipment or the ability to add such. UHF and VHF base radios for Control Office as well as portable handheld. Push to talk communications system for communication between ROV and control room. ROV to have DVR capability with the capacity to stream to the network and over the satellite connection.

**Exterior Cameras:** Networked cameras located in crucial points around the vessel and accessible via Ethernet network.

**Secondary Role (in addition to general requirements):**

**Tow Equipment:** 100t tow winch with stern roller, guide pins and Sharks Jaw or Karm Forks, appropriately sized for vessel winch and bollard pull. Storage reels for 1200m iceberg tow rope and iceberg net.

**Bollard Pull:** 100t Bollard Pull for tanker heading control/towing and iceberg towing.
Multipurpose Anchor Handling Tug Supply Vessel

Classification: Vessel must be classed by a recognized international classification agency, (IACS member). As a minimum vessel must have the following DNV class or equivalent certification:

1A1, Anchor Handling Tug/Supply Vessel, Ice 1C, DP2, OIL REC, SF, Fire Fighter I, EO, DK (+), HL (2.5), (Clean Design Preference)

Vessel Age: Not greater than 10 years; newbuild considered.

Berth Capacity: Minimum preferred berth capacity for 60 persons

ROV: Vessels having the flexibility to accommodate a Remotely Operated Vehicle and dive support operations with ability to supply clean energy to the deck spread while maintaining DP2 status will be given preference

Technical Specifications:

Anchor Handling: Support drilling, completions and production activities, rig movement and anchor handling operations as appropriate. Vessel must meet requirements outlined in Norwegian Maritime Directorate Circular RSV 04 2008 – Guidelines on the implementation of specific measures to ensure a sufficient level of safety during anchor handling operations. Smit bracket required on bow with rating approved by charter.

Towing: Drilling rig, Shuttle tanker and any other vessel or structure as required. Vessel to comply with Noble Denton ocean towage requirements or equivalent and have a valid towing approvability certificate.

Towing/working drum: 400mt constant pull

Bollard Pull: Minimum certified bollard pull 200t BP. Certificate less than 5 years old to be provided. Vertical and horizontal bollard pull calculations to be provided as per NMD Circular RSV 04-2008.

Deck Area: Minimum of 750m² clear with minimum 2000t capacity

Bulk Cargo carrying ability (minimum):

- 1000m³ Fuel Oil (combined cargo and ship’s bunker)
- 300m³ base oil storage, 2 tanks each at 150m³
- 300m³ brine storage, 2 tanks each at 150m³
- 400m³ drilling fluids storage in 4 tanks of 100m³ each with capability for 24 hour agitation. Mixing through rolling the tank volumes would be considered an asset.
- Capability to carry 400 to 500 MT of barite, independent of cement tanks, per vessel. Tanks can double up for Cal carb / Bentonite.
- 400 to 600m³ of drill water.
- 400 – 600 m³ pot water.
- All tanks should be able to be moved/rolled independent of other lines of communication, reduce chances of cross contamination, and should ideally be independent of the stability systems
Oil Recovery: OILREC classification. Capability to store, deploy and operate a single vessel side sweep boom (SVSS) system. Vessel to provide hydraulic power supply with associated securing / storage arrangements.

- 1000m$^3$ capacity for recovered oil
Multipurpose Platform Supply Vessel:

**Classification:** Vessel must be classed by a recognized international classification agency, (IACS member). As a minimum vessel must have the following DNV class or equivalent certification:

1A1, Anchor Handling Tug/Supply Vessel, Ice 1C, DP2, OIL REC, SF, Fire Fighter I, EO, DK (+), HL (2.5), (Clean Design Preference)

**ROV:** Vessels having the flexibility to accommodate a Remotely Operated Vehicle and dive support operations with ability to supply clean energy to the deck spread while maintaining DP2 status will be given preference

**Vessel Age:** Not greater than 5 years; Newbuild considered.

**Berth Capacity:** Minimum preferred berth capacity for 60 persons.

**Technical Specifications:**

**Tow Equipment:** 100t tow winch with stern roller, guide pins and Sharks Jaw or Karm Forks, appropriately sized for vessel winch and bollard pull. Storage reels for 1200m Iceberg tow rope and Iceberg net.

**Bollard Pull:** 100t Bollard Pull for tanker heading control/towing and Ice Berg towing.

**Towing:** Ice Berg and emergency Shuttle tanker and any other vessel or structure as required. Vessel to comply with Noble Denton ocean towage requirements or equivalent. Smit bracket on bow shall be given preference

**Deck Area:** Minimum of 750m² clear with minimum 2000t capacity

**Bulk Cargo carrying ability (minimum):**

- 1000m³ Fuel Oil (combined cargo and ship’s bunker)
- 300m³ base oil storage, 2 tanks each at 150m³
- 300m³ brine storage, 2 tanks each at 150m³
- 400m³ drilling fluids storage in 4 tanks of 100m³ each with capability for 24 hour agitation. Mixing through rolling the tank volumes would be considered an asset.
- Capability to carry 400 to 500 MT of barite, independent of cement tanks, per vessel. Tanks can double up for Cal carb / Bentonite.
- 400 to 600m³ of drill water.
- 400 – 600 m³ pot water.
- All tanks should be able to be moved/rolled independent of other lines of communication, reduce chances of cross contamination, and should ideally be independent of the stability systems
**Oil Recovery:** OILREC classification. Capability to store, deploy and operation a single vessel side sweep boom (SVSS) system. Vessel to provide hydraulic power supply with associated securing / storage arrangements.

- 1000m³ capacity for recovered oil