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Offshore LNG: what's in a name

The offshore oil and gas industry loves acronymns: FPSO, MODU, TLP, etc[1]. The shipping industry prefers names: Handymax, Capesize, 18,000 TEU container vessel, etc. The LNG industry lies between the two. When in transportation mode: QFlex, QMax, 158,000 cubic meter LNG carrier. When offshore projects are contemplated, the industry adopts the oil and gas practice: FSRU, FLNG, LNGRV, FLSO etc. **Stuart Beadnall** considers whether, legally, the name matters.

These acronyms are used loosely: an FSRU is sometimes described as a form of FLNG, which, in a general sense is correct, as a floating LNG project. However, FLNG is more correctly used to describe an LNG FPSO project i.e. where the LNG production unit sits above the reservoir, in the same way as an oil FPSO facility. The same expression is also sometimes used to describe a facility receiving, liquefying, storing and offloading natural gas, even though the expression FLSO appears more suitable[2].

Whilst ensuring accurate description of the intended purpose of the facility is an obviously important part of a technical specification, does any of this matter from a legal viewpoint?

Under English law the simple answer is no, it makes no difference to the legal interpretation of a contract for the installation and operation of an offshore facility if it is described as a contract for an FLNG or for a GNLF. All that really matters is the detail of the terms that parties have agreed, supported by a well-defined specification. Having said that, the title given to the intended project, particularly at the preliminary stage, may be relevant to anticipating the parties' intentions concerning allocation of risk, to be apportioned in the contract documentation.

In short, if the parties are clear at the outset what precisely the facility is intended to achieve, this would assist the parties in deciding who should be responsible if it does not achieve what is intended.

F is for floating

Not all offshore LNG projects described with an F will float throughout the project, as some may be grounded at a terminal, but nevertheless the facility is intended to be capable of floating, with the following consequences. The first is that a floating facility, by definition, is limited in terms of its maximum capability relating to capacity, weight distribution, stability, and related design parameters such as centre of gravity. Many FPSO new build and conversion projects have come to grief when the design of the top sides to be installed is revealed, sometimes late in the day, to be unsuitable for the hull, and the overall functioning of the intended facility. The F also is a warning that the facility is intended to be installed, tested and commissioned at sea, with the consequence that any defects discovered at that stage will be immeasurably more difficult to resolve and rectify than any facility conveniently sitting on shore.

S is for storage

The consequences of capacity restrictions inherent in floating facilities are exacerbated by the crucial importance of the facility having sufficient product storage. The impact of insufficient storage for a regasification project would be a reduction in the volume of incoming cargo to be handled. However, for a production facility project, the consequence may be more extreme: insufficient storage capacity (in relation to production capacity and tanker scheduling) may prevent the facility achieving continuous full production.

[1] *Technically some are not acronyms, but initialisations – Ed.*

[2] *FLSO has been registered by Excelerate as a trademark*

If the intended FLNG is an LNG FPSO, the impact may be shut in of the reservoir, the risk of which occurs not just when the tanks for storing LNG, awaiting arrival of an LNG offloading vessel, reach full capacity, but equally where the LPG/condensate tanks become full, awaiting arrival of an LPG carrier.

L is for liquefaction

This equipment is the most complex and novel part of the unit (when applied offshore) and the facility would be required to handle the incoming hydrocarbon stream to make it suitable for liquefaction, and achieve minimum levels of both quality and quantity of the intended product. The intended user may be entitled to reject the facility and ultimately terminate the contract if the intended minimum levels have not been achieved. Where an oil FPSO is rejected, the facility may at least continue to produce oil pending resolution of the dispute, and thereby avoid the need for termination. However, that commercial solution may not be so easily achieved if an LNG FPSO fails to achieve successful liquefaction.

The termination risk is reduced if the wellstream can be processed elsewhere, removing impurities and liquids, so that pure gas is made available for liquefaction. An FLSO is an example of this concept.

R is for regasification

Having outlined particular risks inherent in offshore LNG production projects, the good news is that the type of risks arising in offshore regasification projects are closer to those experienced in typical LNG transportation. For that reason, the parties are often content to apply terms taken from conventional long term LNG charters, even for barges operating as fixed

terminals. Although the risks may be similar, the rewards often vary, with the parties preferring a form of tolling agreement, based on throughput, rather than a more conventional day rate. Achieving minimum levels of regasification is not, of course, a likely difficulty, given that, in conventional LNG charters, the parties' main concern is to avoid regasification beyond the permitted maximum, and it is technically easier to warm up LNG than it is to cool down and liquefy natural gas. Nevertheless, the parties will be keen to ensure that the regasification and offloading operations can be achieved quickly, bearing in mind the commercial consequences of delay – where an arriving LNG vessel is prevented from discharging its cargo because the FSRU has insufficient storage available, the effect is the expensive cost of time of both the FSRU and the LNG carrier. The most obvious example is the loss of product during storage, mentioned in this newsletter. For other examples, do please subscribe to future editions of Well Heeled.

LNG is for, er, LNG

Most people realise that at -162°c, LNG is cold. Not all realise what precisely that means for safe production, storage and transport. At each stage of the risk evaluation process, in addition to the allocation of risk attendant on all shipping and offshore projects, there must be a separate evaluation of the risks specific to LNG. Without that, it is likely the F is no longer for floating.

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