Floating Production
What's New in October 2014

Jim McCaul – IMA

Current Inventory – 324 oil/gas floating production units are now in service, on order or available for reuse on another field. FPSOs account for 65% of the existing systems, 78% of systems on order. Production semis, barges, spars and TLPs comprise the balance.

The oil/gas production floater inventory is the same as last month. There were no orders for additional production systems in September. Two units were delivered during the month.

Another 30 floating LNG processing systems are in service or on order. Liquefaction floaters account for 17%, regasification floaters 83%. No liquefaction floaters are yet in service – all 5 are on order. Total LNG inventory has increased by one unit since last month, the result of an order for an FSRU to be positioned in Dubai. DUSUP in September awarded Excelerate a ten year charter to provide/operate an FSRU in Jebal Ali. This will be a second FSRU in the port -- the *Golar Freeze* is already operating as a regas terminal in Jebal Ali. An existing Explorer-class regas carrier will be modified to be able to produce 800 mmcf/d. Operation is to start in 2016.

In addition, 102 floating storage units are in service, on order or available.

Number of Floating Production and Storage Units
In Service, On Order or Available for Reuse
(As of 1 October 2014)

	Total	Active	On Order	Available
Oil/Gas Production				
FPSO	216	163	36	17
Production Barge	10	8	2	0
Production Semi	48	41	2	5
Production Spar	22	20	2	0
TLP	28	24	4	0
Total	324	256	46	22
LNG Processing				
FLNG	5	0	5	0
FSRU	25	13	12	0
Storage Systems				
FSO	102	93	8	1

Floater Projects in the Planning Stage – 233 floating production projects are in various stages of planning as of beginning September. Of these, 58% involve an FPSO, 13% another type

oil/gas production floater, 23% liquefaction or regasification floater and 6% storage/offloading floater.

Breakdown of Planned Projects by Type Production System Required
(As of 1 October 2014)

Type System Required	Number of Projects
FPSO	135
OTHER FPS	30
FLNG	34
FSRU	20
FSO	14
Total	233

Brazil, Africa and SE Asia continue to be the major locations of floating production projects in the visible planning stage. We are tracking 43 projects in Brazil, 49 in Africa and 40 projects in SEA – 57% of the visible planned floating production projects worldwide. Several large projects in Brazil and (less so) Africa will require multiple production units. Overall, up to 275 production floaters of various types will be required for the 233 projects we are tracking.

Breakdown of Planned Projects by Location of Field
(As of 1 October 2014)

Project Location	Number of Projects
Africa	49
Brazil	43
SE Asia	40
GOM	24
No. Europe	24
Aust/NZ	16
Medit	10
SW Asia	10
Other	17
Total	233

Around 15% of the 233 visible planned projects are likely to advance to the EPC contracting stage within the next 18 months. These projects typically have either entered the FEED phase, pre-qualification of floater contractors has been initiated or bidding/negotiation is in progress.

Another 48% of the visible projects are at a stage of development where the EPC contract for the production unit is likely within the next 18 to 48 months. The remaining 37% of projects are less advanced in planning, with the EPC contract likely 4 to 10 years out.

New Forecast of Production Floater Orders – We have just completed a detailed analysis of the outlook for production and storage floater orders over the next five years.

Utilizing our database of planned projects, we use a bottom up approach to establish the likely number of floating production projects to reach the investment stage between 2015 and 2019. Then we analyze the underlying business drivers likely to exist during this period – and assess how these drivers will likely impact the pace of final investment decisions.

Having a large backlog of deepwater projects in the planning stage is certainly important. But ultimately the field operator has to feel comfortable moving to the investment stage in project development. These can be multi-billion dollar commitments. The degree to which external business conditions provide investment comfort will determine whether planned projects go forward, get delayed or be discarded as non-starters.

In our report we examine twelve underlying business drivers that will influence the pace of investment in floating production project starts. Some of these are positive drivers. Some are negative. All have an impact on the number and timing of future production floater orders.

In the positive category are

- oil and gas demand keeps growing as world output and population grows
- supply disruption keeps the focus on finding new sources of supply
- oil prices are holding around $100 – though prices have been weakening lately
- many more deepwater drillships/rigs are entering service
- the financial market is more open than several years back – capital cost is low

In the negative category are

- major energy companies have been cutting back on capital expenditures
- a lot more supply has suddenly come into the oil and gas market
- shale/tight oil and gas projects are competing for investment funds
- constraints in the supply chain are creating delays and overruns
- cost escalation is impacting the viability of deepwater projects

In the unknown category are

- how competitive will deepwater be with shale oil supply
- will a black swan event impact the sector

The result is a forecast of orders that reflects the growing number of projects in the planning pipeline and a future pace of ordering that reflects the uncertainty about underlying business conditions in which investment decisions are made.

Details about our new October 2014 forecast report and the new online floating production database are available at www.worldenergyreports.com. We invite you to take a look. There is nothing like this available elsewhere.

Further Details – We have the capability to prepare detailed customized reports on all aspects of the floating production systems market. For further information, please contact Jim McCaul at imaassoc@msn.com or call 202 333 8501. We will be pleased to discuss how we might be of assistance.

Terms Used

FPSO – Floating Production, Storage and Offloading Vessel
FSO – Floating Storage and Offloading Vessel (no production plant)
FSRU – Floating LNG Storage and Regasification Unit
FLNG – Floating LNG Liquefaction Plant
Semi – Production Semisubmersible
TLP – Tension Leg Platform
SPAR – Production Spar (cylindrical shape)
FPS – Floating Production System (all types)
EWT – Extended Well Test
FEED – Front End Engineering and Design
EPC – Engineering Procurement Construction contract

About Jim McCaul

Jim is the founder and manager of IMA, a consulting firm providing market analysis, competitive benchmarking and business planning support in the maritime and offshore sectors. Over the past 40 years IMA has performed more than 350 business consulting assignments for 170+ clients in 40+ countries.

One of the firm's specialties is analyzing requirements for floating production systems. IMA has published more than 50 reports since 1996 analyzing this business sector and has been engaged by numerous clients to assist in analyzing specific market opportunities in the floating production sector.

Please visit our website www.imastudies.com for more information about Jim McCaul and IMA.