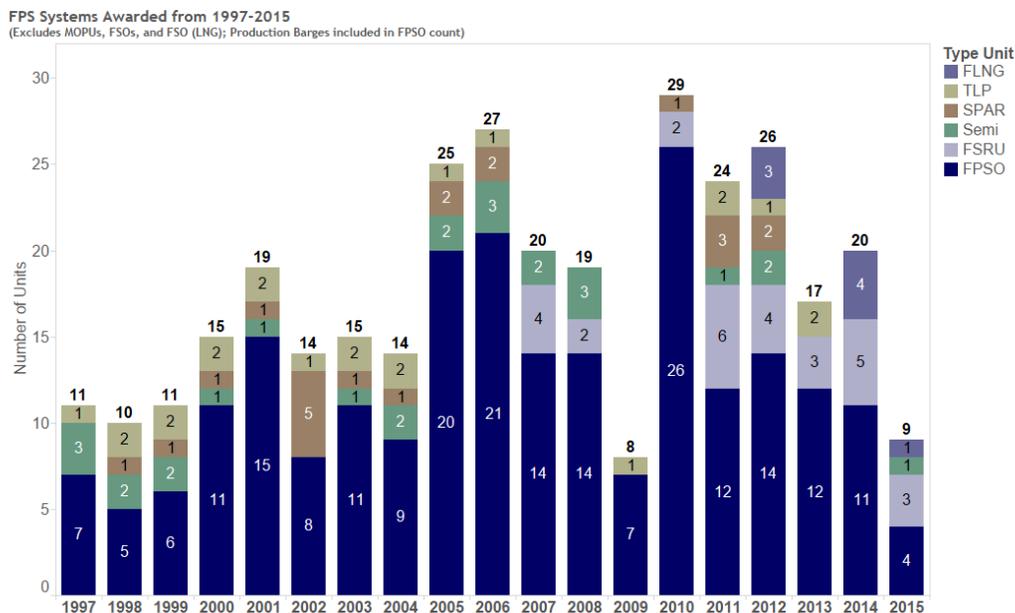


LOW ACTIVITY FOR FLOATING PRODUCTION INDUSTRY THROUGH 2016, SLOW RECOVERY POSSIBLE BEGINNING IN 2017

In its *2016-2020 Floating Production Systems Outlook Report*, Energy Maritime Associates (EMA), analyzed the activity in 2015, recent industry trends and conducted a sentiment survey in order to develop a detailed forecast for each type of Floating Production System: FPSO, FLNG, FSRU, TLP, Spar, Semi, and FSO.

What happened in 2015:

- 17 contracts were awarded, worth over \$7 billion: 4 FPSOs, 6 FSOs, 3 FSRUs, 1 FLNGs, 2 MOPUs, and 1 Production Semi. This is down 45% from the 30 units awarded in 2014.
- Only 4 FPSOs were ordered, the lowest level going back more than 20 years. All awards were made in Q1, before oil prices fell even further.
- 6 orders were placed for LNG-related units: 3 FSRUs, 2 LNG FSOs, and 1 FLNG. This is the first time that more LNG-related units have been ordered than FPSOs.
- 26 units are idle without contracts – 16 FPSOs, 6 Production Semis, 3 FSOs, 1 MOPU. Many of these units will eventually be scrapped, while a few may be redeployed as early production systems, or on short to medium term contracts on marginal fields.



What does the future hold?

- **Up to 157 Orders.** Between 82-157 Floating Production Systems are expected over the next five years with a total capital cost between \$62.3 and \$134.7 billion. Most likely forecast is 115 orders costing \$92.9 billion. Due to the expectations of continued lower oil prices, we have adjusted our forecast scenarios downward, with last year's low case becoming this year's most likely case. However, given the continued demand for LNG related projects, we have increased the number of FLNG and FSRU orders, which are expected to account for 1/3rd of the capex expenditure over the next five years. FPSOs will still be the largest category with almost 40% of the expected orders and over 50% of the capital expenditure. \$20 billion worth of units are expected for each of Africa and Australia. Brazil falls to the third spot (\$17.5 billion), following spending cuts by Petrobras. Projects in Southeast Asia should receive \$11 billion worth of orders for FPSOs, FSOs, FLNGs, and TLPs. Major new awards are expected toward the end of the decade on both sides of the Gulf of Mexico as well as the North Sea.
- **Petrobras Impact.** As we predicted last year, Petrobras cut its growth plans and did not award any FPSO contracts in 2015. However, Petrobras is now back in the market for two FPSOs (Libra Pilot and Sepia). If reforms continue in Brazil and Petrobras farms out some developments, 2-3 FPSOs could be awarded annually. However, if this does not take place, Petrobras will struggle to finance new orders.
- **Continued slowdown and survival mode for 2016.** Respondents were quite gloomy in EMA's annual *Floating Production Industry Survey*, with almost half feeling pessimistic about the outlook for the coming year. Over 70% reported low levels of contract execution activity in 2015, with similar expectations for 2016.
- **When will it end?** The last two downturns in 2004/5 and 2009/10 saw sharp rebounds the following year. This is not the case for our current situation as oil prices are anticipated to remain lower for longer. We expect 2016 to see similar levels of orders as 2015. The vast majority of respondents to our survey felt this downturn would last at least two more years, with only 19% believing it would end in 2016.

According to EMA's Managing Director David Boggs, "2015 was the worst year for the floating production industry since 2009. 2016 will likely be just as bad, with final investment decisions continuing to be delayed. In 2015, there were large layoffs and restructurings, but we did not see a great deal of M&A and asset sales. This is likely to change in 2016 when some yards and contractors are faced with empty orderbooks and bleak prospects

for the next 12-18 months. Few, if any, major awards will be made in the first half of 2016, but, there are a number of large developments in FEED that could be sanctioned by the end of 2016. Fundamental reforms including standardized designs and closer collaboration will reduce the costs for offshore hydrocarbon developments and result in new orders for floating production systems. We are currently tracking 241 projects in the planning pipeline. Awards for LNG-related units should continue to grow and this will only increase once the first FLNG unit begins operation later this year.”

Further details are included in the 199-page **2016-2020 Floating Production Systems Outlook Report**.

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