



RPSEA Panel Discussion
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Objective



- Maintain high standards of safety, reliability and integrity with respect to humans and the environment while achieving effective, economic means of delivering hydrocarbons from deepwater sites to US shores

Full – Scale Testing / Monitoring



- Purpose: Quantify gap between reality (full-scale) and model scale findings
- Outcome: Retain an appropriate amount of analysis conservatism to maintain safety, reliability and integrity while enhancing project economics by reducing the costs of procuring and installing strakes
- We have worked the VIV problem intensively from the minute detail level up in countless model-scale tests; however, anecdotal and limited full-scale monitoring experience indicate that an unquantified gap still exists between model tests and full-scale reality.
- Regardless of the various sources of disparity, we do not have a reliable estimate of the magnitude of analysis conservatism
- Work the problem from the full-scale side by devising and implementing a rigorously instrumented setup in deep-water – either using an existing facility or something purpose – built

Drilling Riser VIV Suppression



- Purpose: Develop an effective fairing design and all associated handling and installation methods for drilling risers
- Outcome: Maintain the level of safety, reliability and integrity provided by helical strakes, while enhancing the economics of drilling campaigns by widening the window of operability
- There is reasonable evidence that an effective helical strake design can be devised to virtually eliminate VIV fatigue for risers; however, strakes come with a drag penalty that is particularly onerous for drilling risers
- Using strakes on drilling risers can enhance safety, reliability and integrity, but inoperability due to drag in high currents (high angles, inability to run/retrieve) may penalize the economics of a campaign unacceptably
- Fairings may deliver the same benefits as strakes with a significantly decreased drag penalty, but extra effort is required in their design because they present their own set of difficult hydrodynamic issues