

## CAIRN ENERGY BANGLADESH SOUTH SANGU DEVELOPMENT

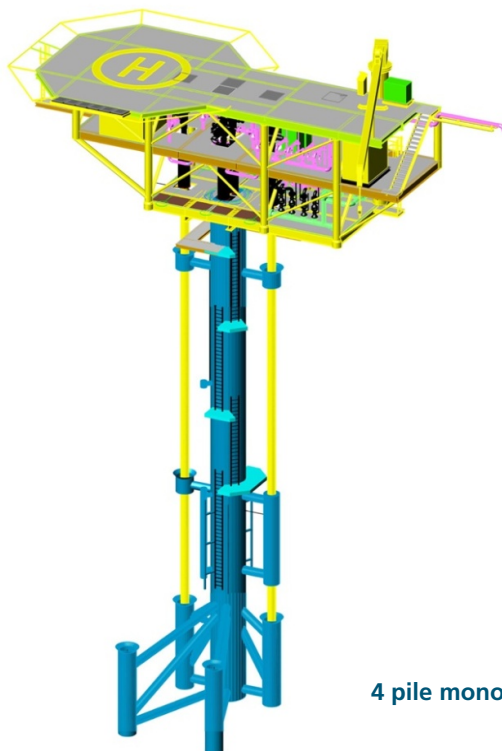
### Conceptual Design

ICON Engineering was commissioned by Cairn Energy, Bangladesh to initially undertake a conceptual study of a minimal facilities development of the South Sangu gas field offshore Chittagong in Bangladesh. Because of the limited period in which drilling and construction can take place, the project commenced on a fast track schedule with the intention to install the facilities less than 12 months from commencement of the conceptual studies. The South Sangu field was to be tied into the existing Sangu A platform which exports gas to Chittagong.

#### Work Scope

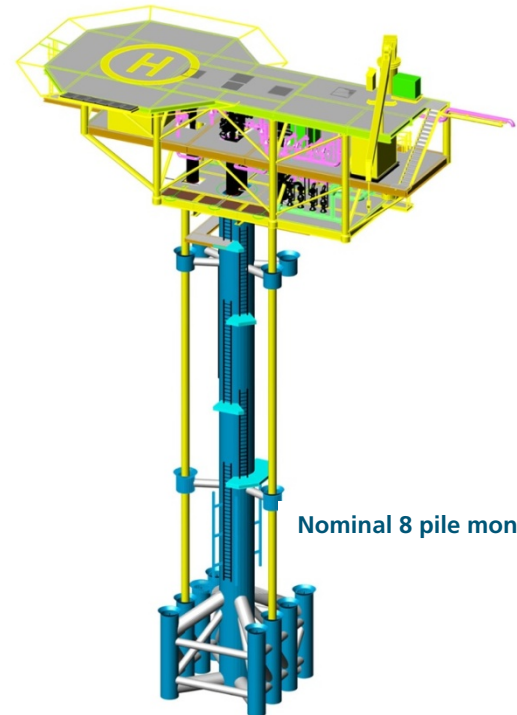
The work scope included a conceptual study of the South Sangu platform, the pipeline to Sangu A and the design of a deck extension and host facilities to be installed on the Sangu A platform. Following on from the conceptual study, ICON commenced detailed design prior to deferral of the project.

The location is characterised by large tides, extremely strong tidal currents (6 knots), high waves, very thick weak soils which are prone to scour and a lack of local offshore construction infrastructure.



**4 pile monopod**

The concepts considered included both lattice and monopod jackets. The monopod was the appropriate solution due to its low wave drag.



**Nominal 8 pile monopod**

#### Data

<b>Year</b>	<b>Nov 2005 - March 2006</b>
<b>Water depth</b>	<b>10 m LAT</b>
<b>Jacket Lift Weight</b>	<b>250 t</b>
<b>Topsides Weight</b>	<b>200 t</b>
<b>Legs/ Wells</b>	<b>4 wells</b>
<b>Piles</b>	<b>6 or 8.</b>

#### Cost Effective Transportation and Installation

The jacket and topsides were designed to be transported to site on a supply boat and to be installed using a jackup drilling rig. They could also be installed by crane barge if required.

#### Fast Track Solution

ICON was in a position to complete detailed design and manage fabrication to ensure that installation could meet the fast track schedule. Due to limited geotechnical information, the jacket was designed to allow the final number of piles to be decided after fabrication had commenced.

The project was deferred when it was determined that further appraisal drilling was required before the project could be sanctioned. Unfortunately, a subsequent appraisal well failed to prove up the necessary reserves and the project was cancelled.