



BG TRINIDAD  
& TOBAGO



# Poinsettia: RAM Analysis

## Services Performed

IRC completed a reliability, availability, and maintainability (RAM) analysis for the British Gas Trinidad and Tobago (BG) Poinsettia development. The work included a FEED-stage RAM analysis and a pre-startup RAM update to incorporate design changes, facility manning plans, and revised production estimates.

## Objectives

- Develop a production availability model of the Poinsettia gas facilities including updates since FEED
- Identify design, operational, and maintenance considerations to enable optimal production performance throughout field life
- Verify production availability in order to fine tune security of supply calculations

## Project Description

BG Trinidad and Tobago Limited (BG) is developing the Poinsettia gas field offshore Trinidad, with startup expected in late 2008. The development consists of a normally unmanned, fixed-leg, wellhead platform with minimal gas processing facilities. Export from Poinsettia is via gas pipeline to the Hibiscus platform for further processing, export to Trinidad, and subsequent liquefaction and delivery to LNG markets.

IRC performed the initial FEED-stage RAM analysis. As the project has progressed, a RAM update was required to incorporate design changes, a revised production profile, the phased manning plan, and logistical constraints.

The RAM work completed by IRC identified restrictions in the design including process control trips, separation, and power generation. Recommendations included a relatively low-cost modification to improve the availability of the instrument air system, and resulted in approximately 900 mmscf increased gas production over the project's 15-year field life.



## Key Benefits to Client

- The RAM analysis contributed to BG's understanding of major contributors to production losses and focused facility resources on problem areas: plant restarts, separation, and power generation
- Realized significant cost benefit (approximately \$6MM using 2006 Henry Hub gas prices) and deferred gas savings (approximately 900 mmscf) with the use of an installed spare pressure control valve on the instrument air receiver



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