

# SUNRISE LNG BUSINESS REVIEW



Major milestones were achieved in 2010 including the Sunrise Joint Venture unanimously selecting Floating LNG as its preferred development concept. The concept is now being progressed with the Australian and Timor-Leste governments in accordance with international treaty obligations.

The Sunrise LNG Development involves developing the Sunrise and Troubadour gas and condensate fields, collectively known as the Greater Sunrise fields, located approximately 450 km north-west of Darwin, Northern Territory and 150 km south-east of Timor-Leste.

The fields, discovered in 1974, hold a total contingent resource of 5.13 Tcf of dry gas and 225.9 million barrels of condensate. Another key milestone in 2010 was the independent certification of these volumes.

Approximately 80% of the Greater Sunrise fields is attributed to Australia with the remaining 20% attributed to the Joint Petroleum Development Area (JPDA), which is jointly administered by the governments of Australia and Timor-Leste.

Woodside and its Sunrise joint venture participants have made a substantial investment in the Greater Sunrise fields - more than \$300 million since discovery. The Joint Venture has acquired and processed seismic data, drilled appraisal wells and undertaken extensive studies to select the best development concept consistent with international treaty requirements. The concept selection work has taken more than 300,000 hours with the Sunrise Joint Venture applying its wealth of LNG experience to a comprehensive technical and commercial evaluation.

The development of the Greater Sunrise fields offers both Australia and Timor-Leste a significant opportunity to meet growing worldwide demand for cleaner energy and deliver sustainable benefits to both resource owners.

**JON OZTURGUT**  
SENIOR VICE PRESIDENT  
SUNRISE

## Sunrise LNG

<b>INTEREST</b>	PSC JPDA 03-19; PSC JPDA 03-20; NT/RL2; NT/RL4	33.44% (unitised)
<b>OPERATOR</b>	Woodside	
<b>LOCATION</b>	Offshore 450 km north-west of Darwin, NT 150 km south-east of Timor-Leste	
<b>WATER DEPTH</b>	Less than 100 metres to greater than 600 metres	
<b>CONTINGENT RESOURCES*</b>	1,717 Bcf dry gas, 75.6 MMbbl condensate	
<b>ACREAGE</b>	(km <sup>2</sup> )	Gross Net 2,998 958

\*Woodside share

## KEY ACHIEVEMENTS

**UNANIMOUS SELECTION OF FLOATING LNG CONCEPT**

**ROBUST PROJECT ECONOMICS**

**INDEPENDENT CERTIFICATION OF RESOURCES**

**GOVERNMENT REGULATORS ENGAGED**

### Momentum in 2010

During 2010 Woodside and its joint venture participants actively progressed the development of the Greater Sunrise fields with a rigorous technical and commercial evaluation of the following three concepts:

- an offshore processing facility linked by an export pipeline to a brownfield onshore expansion of the existing Darwin LNG plant in the Northern Territory (Darwin LNG);
- a standalone Floating LNG processing facility located above the Greater Sunrise fields; and
- an offshore processing facility linked by an export pipeline to a greenfield LNG plant located on the south coast of Timor-Leste (Timor-Leste LNG).

On 29 April 2010, the Sunrise Joint Venture achieved a major milestone and announced the unanimous selection of Floating LNG as its preferred development concept. Floating LNG is deemed to best meet the requirements of the International Unitisation Agreement (IUA) to develop the fields to the best commercial advantage consistent with good oilfield practice.

Floating LNG has the lowest capital cost, lowest operating cost and is the most commercially advantageous development for both Australia and Timor-Leste as resource owners and the Sunrise Joint Venture.

The Sunrise floating facility will be approximately 480 m in length by 75 m wide and will be designed to produce approximately 4 million tonnes per annum of LNG and approximately 10.3 million barrels per annum of condensate for export.

The selection of Floating LNG, in addition to generating the greatest long-term petroleum revenue for Timor-Leste and Australia, provides a broad range of social investment, employment and training opportunities for Timor-Leste. It also has the advantage of having the smallest environmental footprint.

In September 2010, to progress the approvals process, Woodside submitted to the Sunrise Commission, the JPDA and Australian regulators, three Concept Evaluation Reports (Timor-Leste LNG, Darwin LNG and Floating LNG) that underpin its preferred development concept.

### Outlook

In 2011 Woodside and the Joint Venture will continue its drive towards a final investment decision and progress with the Australian and Timor-Leste governments the development of Greater Sunrise to the benefit of all stakeholders. Following the necessary approvals the Joint Venture will enter upstream and downstream basis of design and front-end engineering and design.

### Location of Woodside's permits in the Greater Sunrise area

■ Permit  
■ Gas field

