

# Oil & Gas

## GREATER SUNRISE



Timor Sea Oil & Gas fields

### LOCATION

The Sunrise project is based on the Greater Sunrise gas/condensate fields (including the Sunrise, Loxton Shoals, Sunset, Sunset West and Troubadour wells). The fields lie in the Bonaparte Basin, about 480 km north-west of Darwin.

### PARTICIPANTS

The resources are contained in four titles. Since 3 August 2001, the participants are:

	<b>NT/RL2</b>	<b>NT/P55</b>	<b>ZOCA 95-19</b>	<b>ZOCA 96-20</b>
<i>Woodside Energy Limited</i>	56.67%	26.67%	24.33%	23.33%
<i>Shell Development (Australia) Pty Ltd</i>	25.00%	33.33%	22.33%	3.33%
<i>Phillips STL Pty Ltd</i>	8.33%	30%	33.33%	33.33%
<i>Osaka Gas Australia Pty Ltd</i>	10.00%	10.00%	10.00%	10.00%

On a unit basis, the interests are:

<i>Woodside Energy Limited (operator)</i>	33.44%
<i>Phillips STL Pty Ltd</i>	30%
<i>Shell Development (Australia) Pty LTD</i>	26.56%
<i>Osaka Gas Australia Pty LTD</i>	10%

## HISTORY

- 1974:** The Sunrise and Troubadour fields were discovered but appraisal of the resources was delayed until the Loxton Shoals-1 well was drilled in August 1995. Additional wells drilled since then demonstrated that both fields extend into the Joint Petroleum Development Area.
- May 1997:** The project was originally conceived by the Northern Australia Gas Venture (NAGV) formed as joint venture between Woodside and Shell, to develop a liquefied natural gas (LNG) plant and a domestic gas supply for Darwin and Australia. This project was based on gas from the Greater Sunrise and Evans Shoal fields.
- March 1999:** Shell and Woodside announced on 9 March 1999 that the LNG plant Feasibility Study concluded the LNG project as technically feasible, but dependent on the capture of markets and on project economics.
- 1999:** During the second half of 1999, a joint study of the markets and infrastructure needed to bring Timor Sea gas to the Northern Territory and Queensland was undertaken.

## PROJECT STATUS

Detailed assessments of the gas reserves and field development options are in progress using data gathered in a A\$30 million 3D seismic survey of the gas fields. This is the largest 3D seismic survey ever undertaken in Australian waters.

Proved and probable recoverable resources are currently estimated at around 8.4 trillion cubic feet (238 billion cubic metres) of gas and 320 million barrels of condensate.

On 30 November 2000, Woodside and Phillips announced that they had reached in-principle agreement to pursue cooperative development of their Timor Sea gas resources in the Sunrise and Bayu-Undan projects.

The Cooperative Agreement Principles were signed by Phillips, Woodside and Shell in February 2001.

The concept was designed to combine the early gas delivery potential of the Bayu-Undan development with the large reserve base of the Greater Sunrise fields and to optimise investment in infrastructure. This concept involved plans of bringing the gas from the Sunrise and Bayu-Undan fields onshore in a joint subsea pipeline about mid 2006.

The Greater Sunrise project aim was to sell gas to existing energy users and new developments in the Northern Territory, South Australia and New South Wales and, depending on market demand, in Queensland for power generation, mineral processing and gas-based manufacturing.

In **August 2001**, Shell announced its concept for FLNG (Floating LNG) on Sunrise as an alternative to onshore gas.

In **February 2002**, Woodside announced that Shell's FLNG proposal is its preferred development option. Discussions between the joint venture parties are continuing.

In **July 2002**, after the NT Government's efforts in a public campaign, the Sunrise joint venturers agreed to review domestic gas markets.

In **December 2002**, the joint venture announced that it believed neither the onshore gas option nor the FLNG option were commercially viable. The joint venture will be reviewing its options on the best way forward to develop Sunrise.

In August 2003 the joint venture is searching for customers based on LNG. The development options include expansion of the LNG plant at Wickham Point or floating LNG.

An International Unitisation Agreement over the Sunrise field is being negotiated with East Timor, based on 79.9% in Australia and 20.1% in the JPDA. Agreement was reached on 6 March 2003. Ratification processes are in train.

## **GAS AND GAS-BASED MANUFACTURING CUSTOMERS**

**6 March 2000** - Woodside, Shell and Methanex Corporation, the world's largest producer and marketer of methanol, announced that a letter of intent was signed for supply of approximately 110 petajoules of natural gas per year for a proposed large-scale synthesis gas (syngas) generation and methanol manufacturing facility near Darwin.

**November 2001** - Methanex announced that as it was unable to sign a gas sales and purchase agreement with Shell by 31 October 2001, it would close its Darwin office.

**9 March 2001** - Phillips announced it had entered into a Letter of Intent (LOI) with El Paso Corporation which could underpin the development of a A\$3 billion LNG plant near Darwin. The LNG project would see the delivery of 4.8 million tonnes per annum (Mtpa) of LNG to growing gas markets in southern California in the United States and Mexico's Baja California Peninsula. The LOI lapsed following Shell's FLNG announcement.

Total existing gas resources will sustain supply for over 30 years, with further supply expected from other known resources and potential new discoveries.

Total investment in all segments of the domestic gas project, including gas production, the subsea trunkline and other gas consuming facilities, could exceed US\$4 billion. The Sunrise Gas Project has the potential to be a significant source of income for East Timor through taxation revenue from the Joint Petroleum Development Area.

## **CONTACT**

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