Greater Sunrise LNG Development
Woodside Energy Ltd

8th Asia LNG Markets
March 2003, Singapore

Lucio Della Martina
General Manager - LNG Marketing
Sunrise LNG - An Overview
(Woodside 33.44% Greater Sunrise and Operator)

• Scope for Recovery of 7.7 Tcf dry gas and 299 MMbbl condensate

• Development alternatives considered include floating LNG, onshore LNG and pipeline gas

• Sufficient gas to support a 5.3 mtpa LNG development

• Approximately 82% of upstream component Greater Sunrise is apportioned to Australia and 18% to Timor Leste

• Downstream liquefaction (LNG production) subject to Australian jurisdiction
  • Liquefaction facilities, within Greater Sunrise Unit Area to east of JPDA boundary or for an onshore plant at Darwin, subject to Australian laws and industry regulations

• Start up in 2009 is feasible
History of Greater Sunrise Gas Project

- Discovered in 1974
- 7 exploration and appraisal wells drilled between 1974 and 1998
- 3D Seismic acquisition in 2000
- Subsurface and 3D seismic analysis completed 2002
- Development engineering conducted on a range of development concepts
- Over US$100 million invested by the Greater Sunrise JVPs to date.
Sunrise Onshore LNG Development Option
Sunrise Gas - Potential Onshore LNG Option
Sunrise Gas - Floating LNG Option
Floating LNG Technology

- Feasible
  - Feasibility extensively studied (1999 - 2003) and optimised
  - Innovative combination of a number of proven technologies (FPSO technology, LNG shipping technology and Onshore LNG technologies) into one

- Reliable
  - Assessment in the order of 94% effectiveness (similar to onshore)

- Benign Marine conditions in the Timor Sea ideal for floating LNG concept
  - Computer and tank modelling indicates conventional LNG carriers can be berthed in up to a 1 year return storm period (similar to onshore)

- Safe
  - Benchmarks well against other facilities

- Minimal Environment Impact
  - High overall gas supply chain efficiency (no offshore platform component)
  - Minimal impact on marine environment
Assessment of Sunrise Development Options

- Reviewed Domgas markets, US West Coast markets, reserves, development plans, capital and operating cost

- End of 2002 completed reviews of developments to supply:
  - Gas to Australian Domestic markets (Domgas)
  - LNG to US West Coast (Floating LNG)

- Joint Venture Findings:
  - Neither option was commercially viable as proposed
  - Sunrise is a potentially competitive supplier of LNG into regional markets
Role of Australian and Timor Leste Governments

- Well defined Fiscal, Legal and Regulatory Framework for Greater Sunrise
  - Timor Sea Treaty ratified
  - Greater Sunrise International Unitisation Agreement agreed
  - Proven development regime - Petroleum (Submerged Lands) Act
  - Agreed Production Sharing Contracts for JPDA

- Both Governments committed to support commercialisation of Sunrise

- Sunrise development plays major role in ‘Building a Nation’
  - Sunrise fiscal revenue will help development of Timor Leste as well as providing other benefits
Next Steps

Woodside is now focused on working with its Sunrise partners on pursuing customers and commercial arrangements to support development of the Greater Sunrise fields.