

# Impact of an Exclusive Economic Zone delimitation on East Timor's petroleum revenue



## TIMOR SEA PETROLEUM SEMINAR Dili, East Timor, March 23, 2002

# Impact of an Exclusive Economic Zone (EEZ) delimitation on East Timor's Petroleum Revenue

- **Brief history / background**
- **5 July 2001 proposal versus EEZ delimitation**
  - Sunrise
  - Laminaria / Corallina
  - Bayu-Undan
- **Potential benefit to East Timor of an EEZ delimitation**

**US\$40 billion\***

\* Additional revenue to East Timor, cumulative as-spent dollars of the day over life of all project scenarios 2000 to 2050 (assumes base oil price escalation of 2.5% in line with forecasted US inflation rate). The present (real, de-escalated) value of this future cash flow is approximately US\$21 billion.

# Zona nebe Timor Loro Sa'e ho Australia diskute hela



Minimum EEZ Entitlement  
Possible EEZ Entitlement

Tri-points A16 and A17 were never intended to be permanent points: refer Article 3 of 1972 seabed boundary agreement

5 July 2001 Australia / East Timor 'Joint Petroleum Development Area' 90% East Timor / 10% Australia

Laminaria-Corallina

Bayu-Undan

Greater Sunrise

Evans Shoal

Fronteira Tasiokos nebe Indonesia ho Australia akorda iha 1972

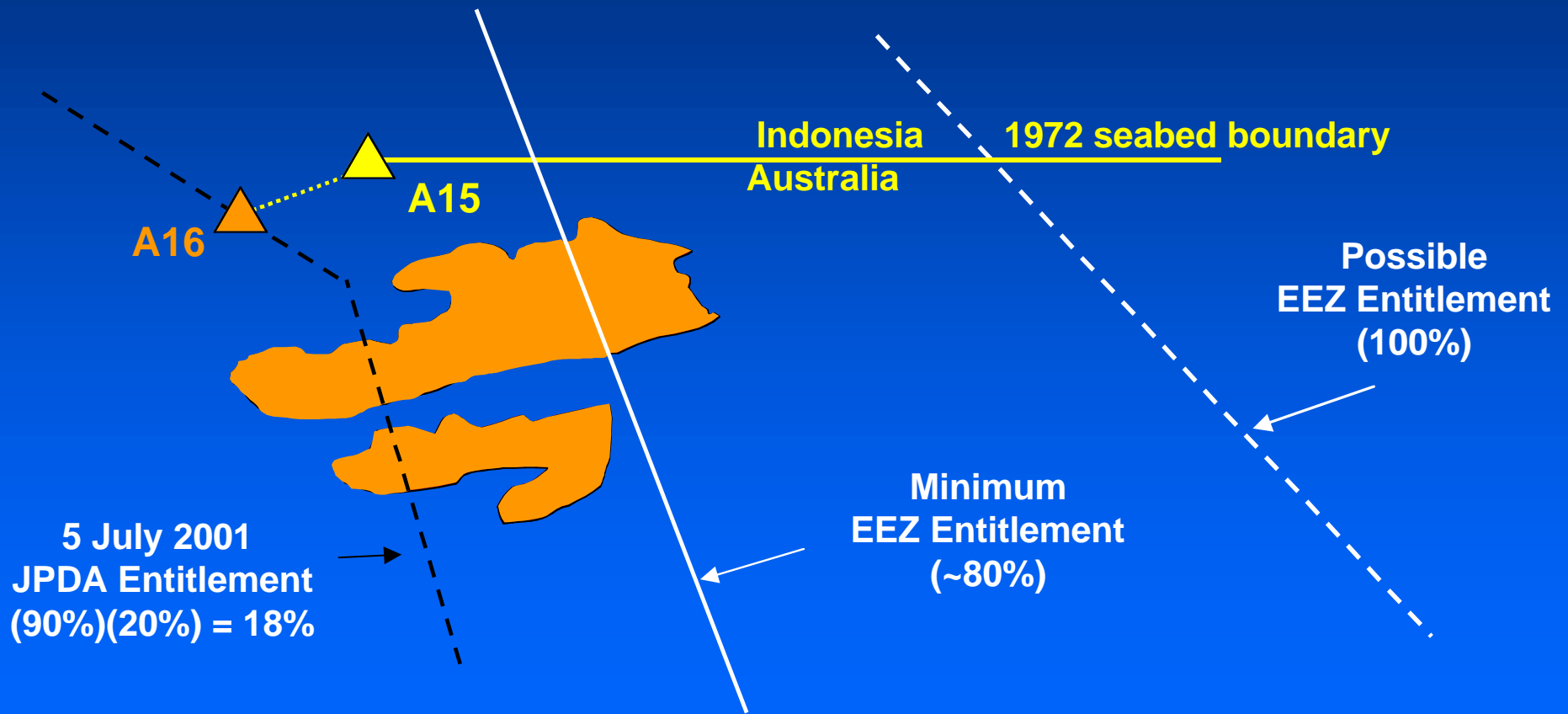
Linha klaran Fronteira be dalan nian nebe akorda iha 1997

Timor Sea Petroleum Seminar - Dili, East Timor, March 23, 2002

# Sunrise gas resource

Condensate: 300 million barrels  
LNG: 177 million tonnes

2.0 billion barrels of oil equivalent  
(BOE)



# Sunrise gas resource

Condensate: 300 million barrels

LNG: 177 million tonnes

Energy

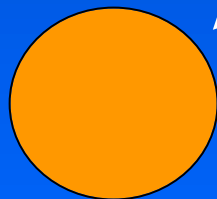
2.05 billion

barrels of oil equivalent (BOE)

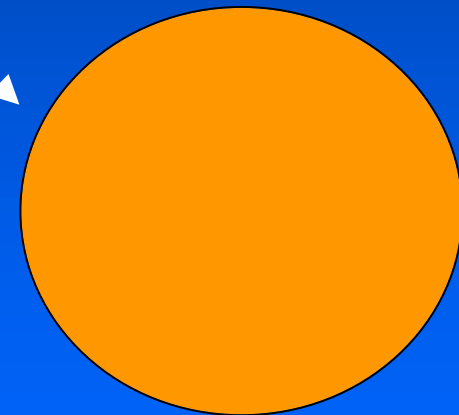
5-July-2001 proposal

Resources owned

Possible resources lost



370 million BOE



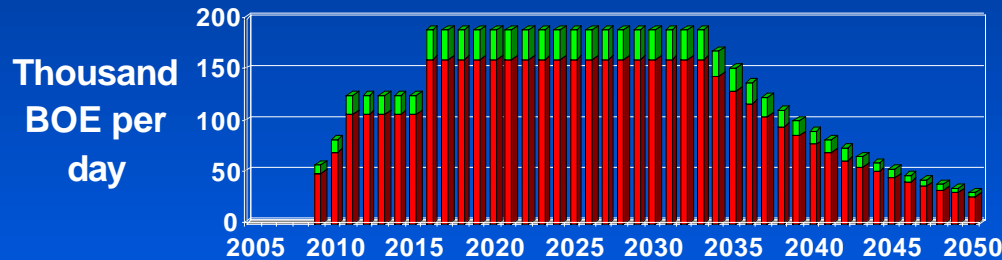
1680 million BOE

# Sunrise gas resource - Floating LNG prospect

Condensate: 300 million barrels

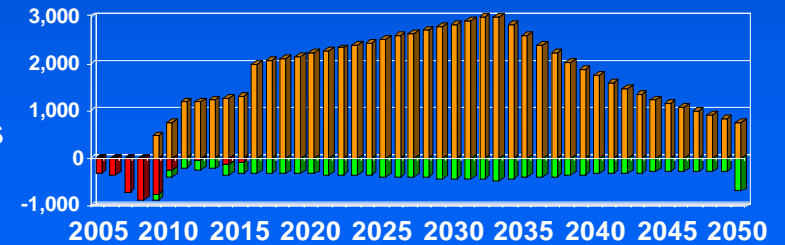
LNG: 177 million tonnes

↓  
Production



Project cash flow →

US\$ millions



Gross sales revenue  
US\$80 billion\*

\* cumulative as-spent dollars of the day over the life of this project scenario. The present (real, de-escalated) value of this future revenue flow is US\$42 billion.

■ Development Capital costs  
■ Combined product sales revenue

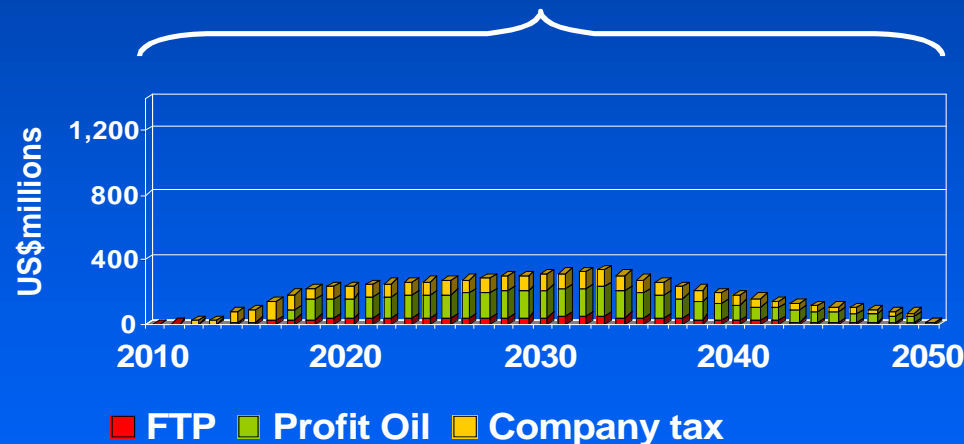
■ Operating cost (incl. LNG transport)

# Sunrise FLNG project scenario

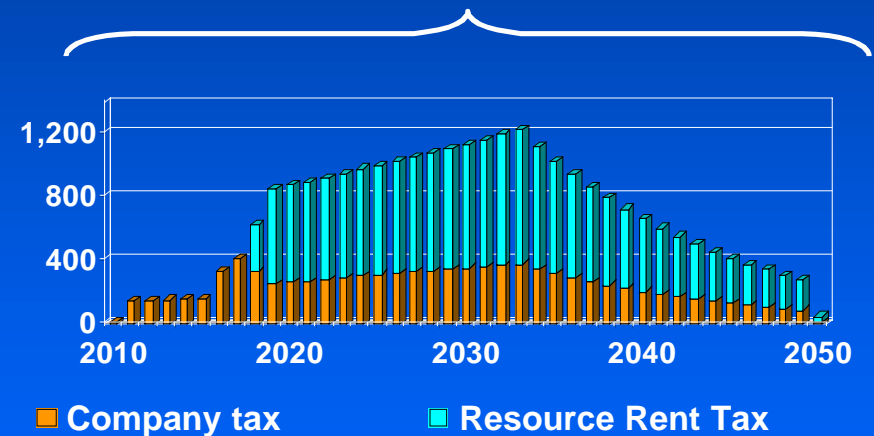
Government revenue split between East Timor and Australia  
based on 5 July 2001 Arrangement (unratified)

As spent dollars-of-the day

East Timor  
US\$ 8 billion\*



Australia  
US\$ 28 billion\*



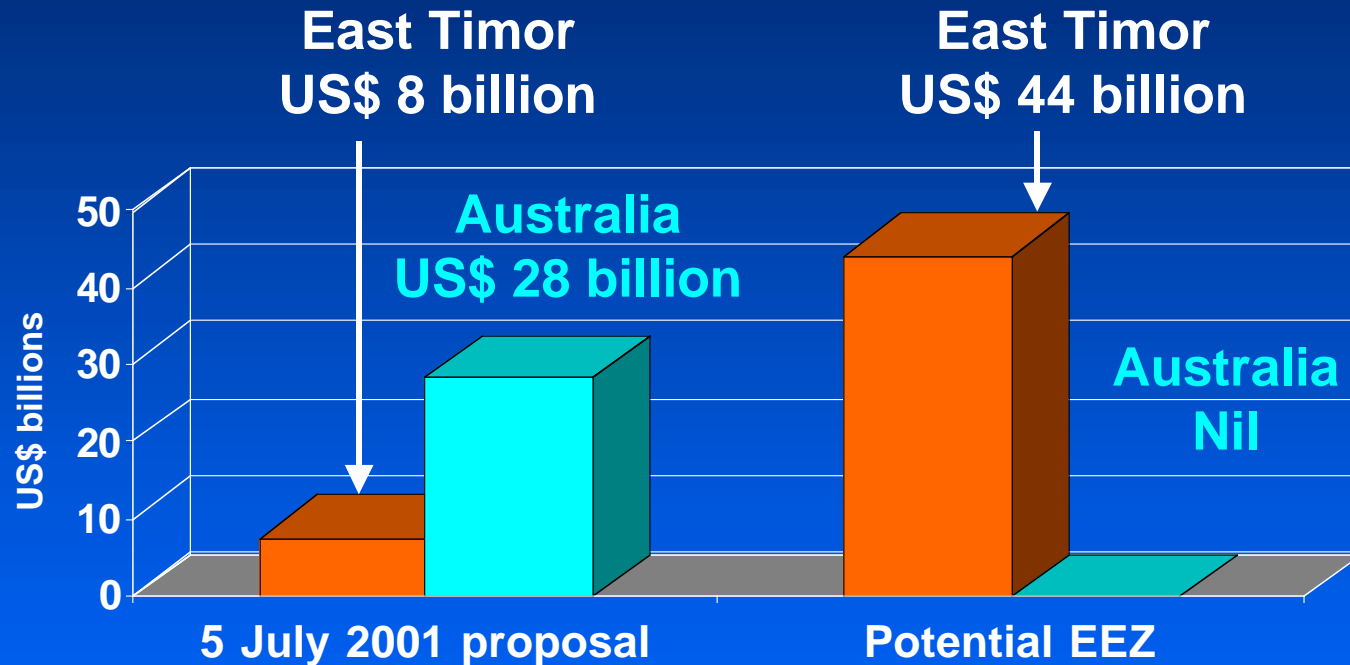
**Total government take = \$36 billion**

\* The present (real, de-escalated) values of these future cash flows are US\$4.4 billion and US\$15.6 billion respectively

# Sunrise FLNG development scenario

## Indicative government revenue

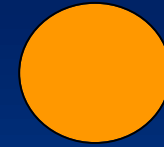
Cumulative dollars-of-the day over project life



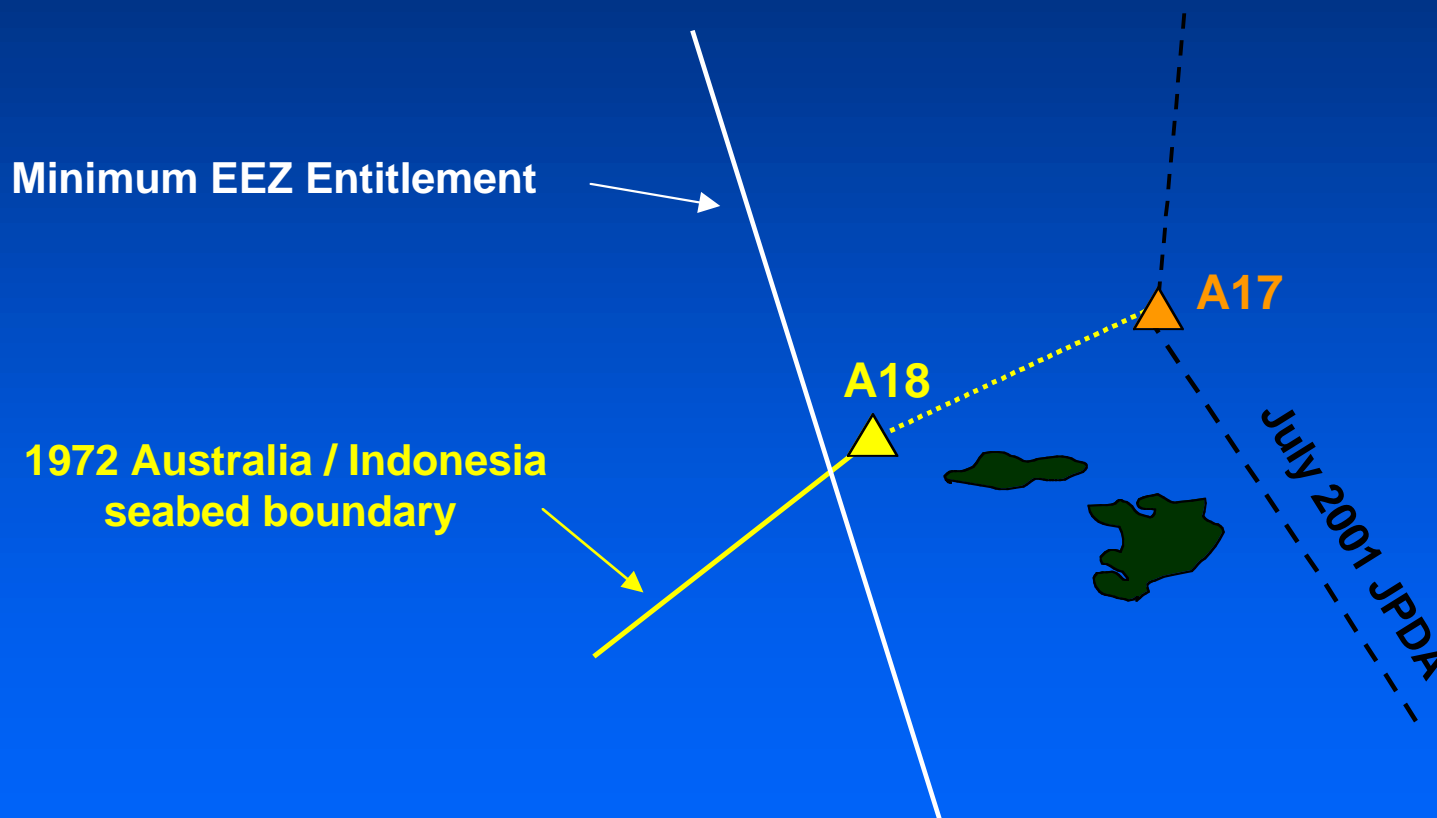
**Potential additional revenue = \$36 billion**

Potential resources

# Laminaria / Corralina oil field

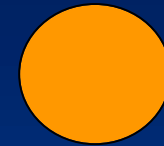


198 million BOE



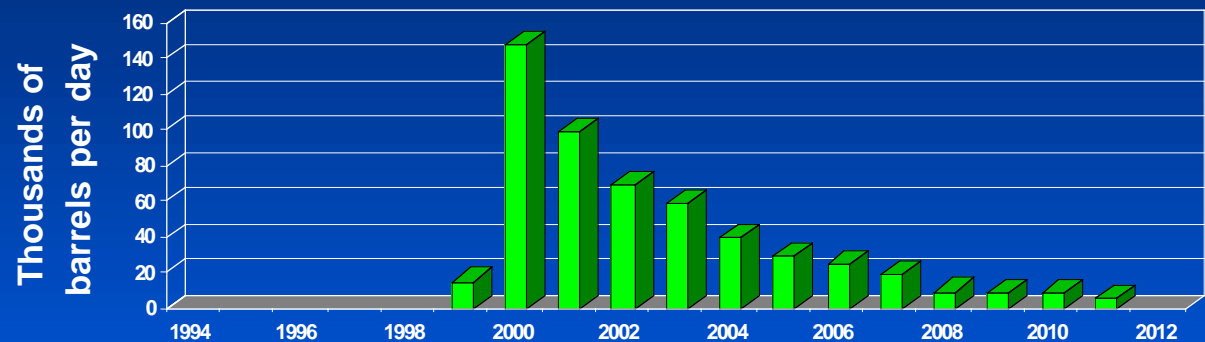
Potential resources

# Laminaria / Corralina oil field



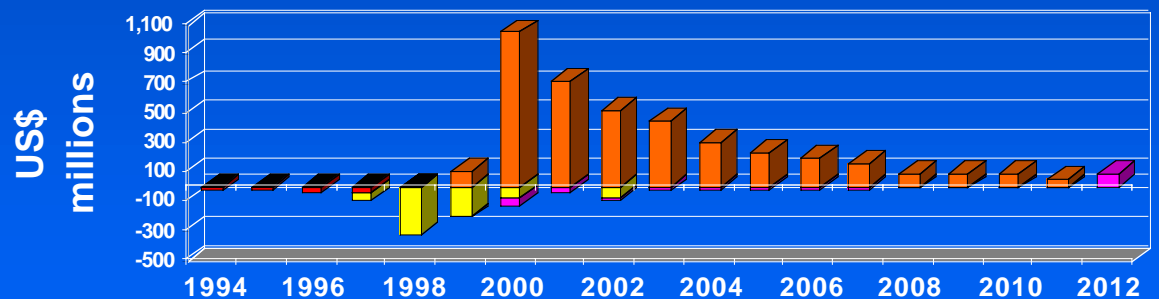
198 million barrels

## Production



Project cash flow

Gross sales revenue  
US\$4.1 billion\*



- Exploration & appraisal cost
- Drilling & facilities cost
- Operating cost
- Gross product sales revenue

\* The present (real, de-escalated) value of this sales revenue is US\$4.0 billion.

# Laminaria / Corralina development

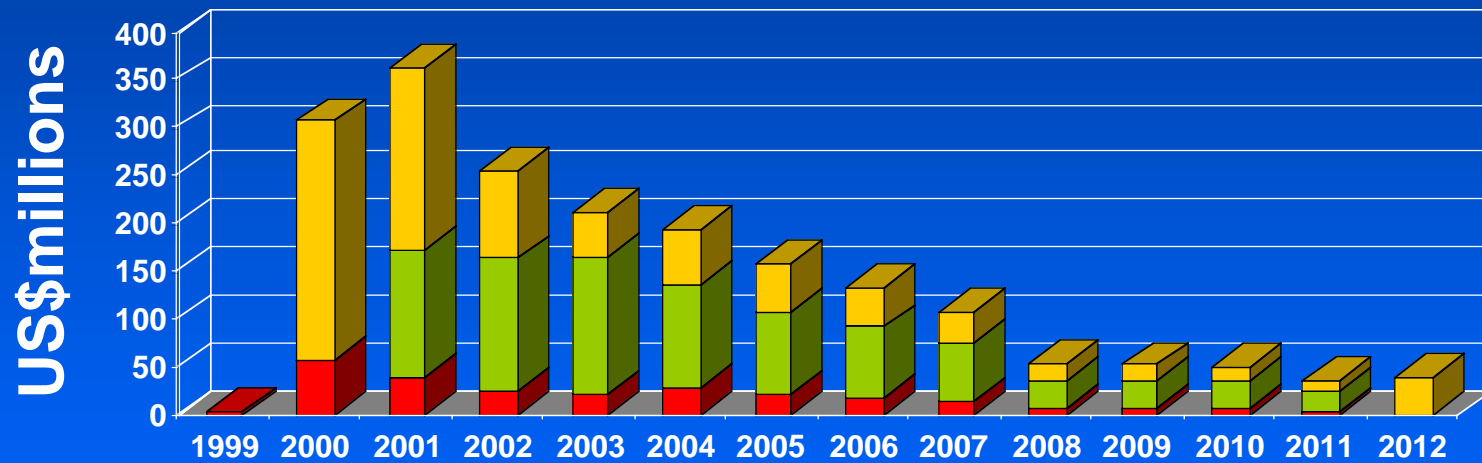
## Hypothetical East Timorese revenue

### if resources were inside East Timor's EEZ

As spent dollars-of-the day

East Timor PSC fiscal scheme at 100% jurisdiction

US\$ 2.0 billion\*



■ East Timor FTP ■ East Timor Profit Oil ■ East Timor corporate tax

\* Present Value is US\$ 1.9 billion.

# Bayu-Undan gas condensate field

LPG: 175 million barrels

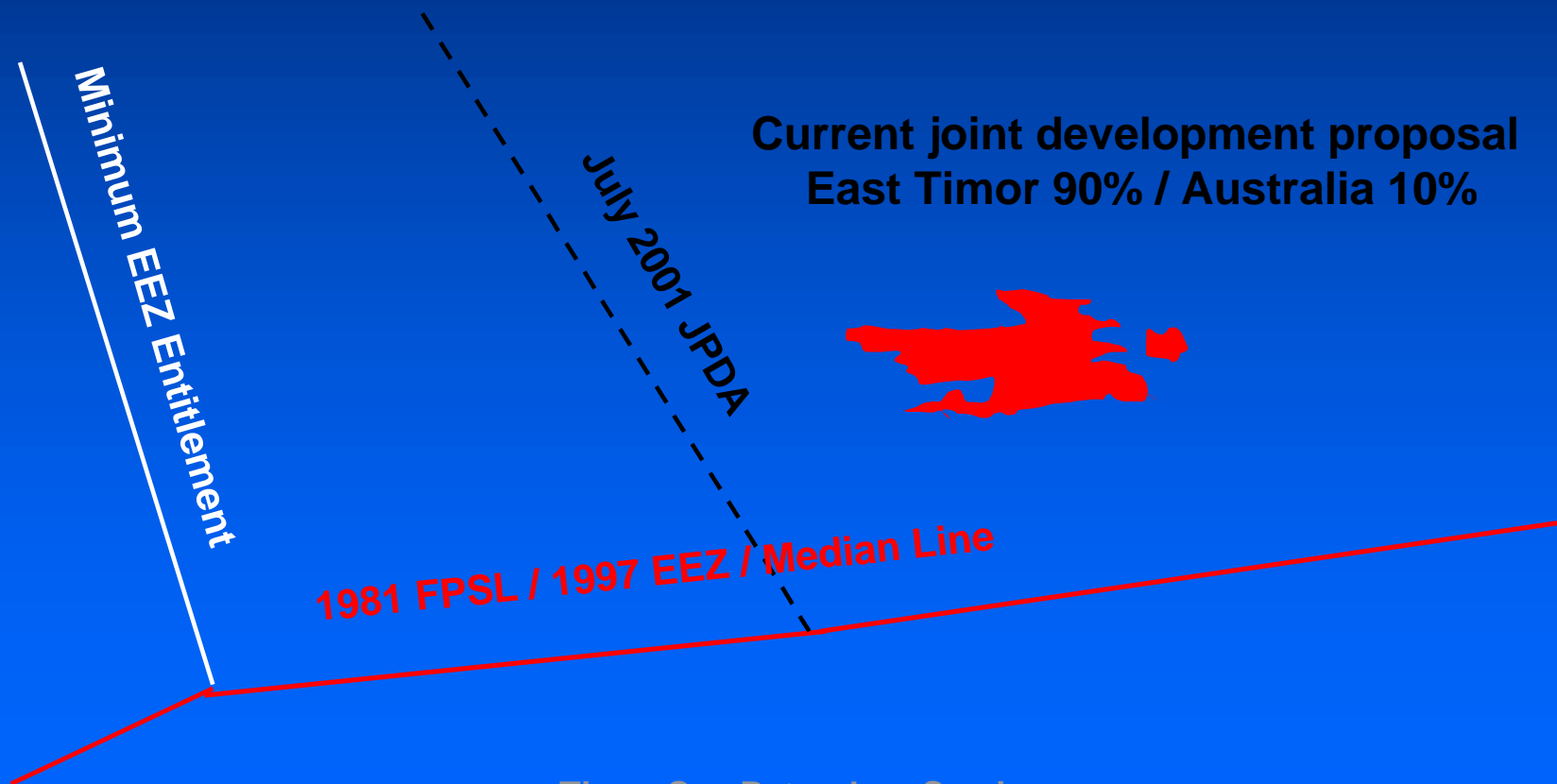
Condensate: 229 million barrels

LNG: 66 million tonnes

Energy

1.05 billion

barrels of oil equivalent (BOE)



Current joint development proposal  
East Timor 90% / Australia 10%

Minimum EEZ Entitlement

July 2001 JPDA

1981 FPSL / 1997 EEZ / Median Line

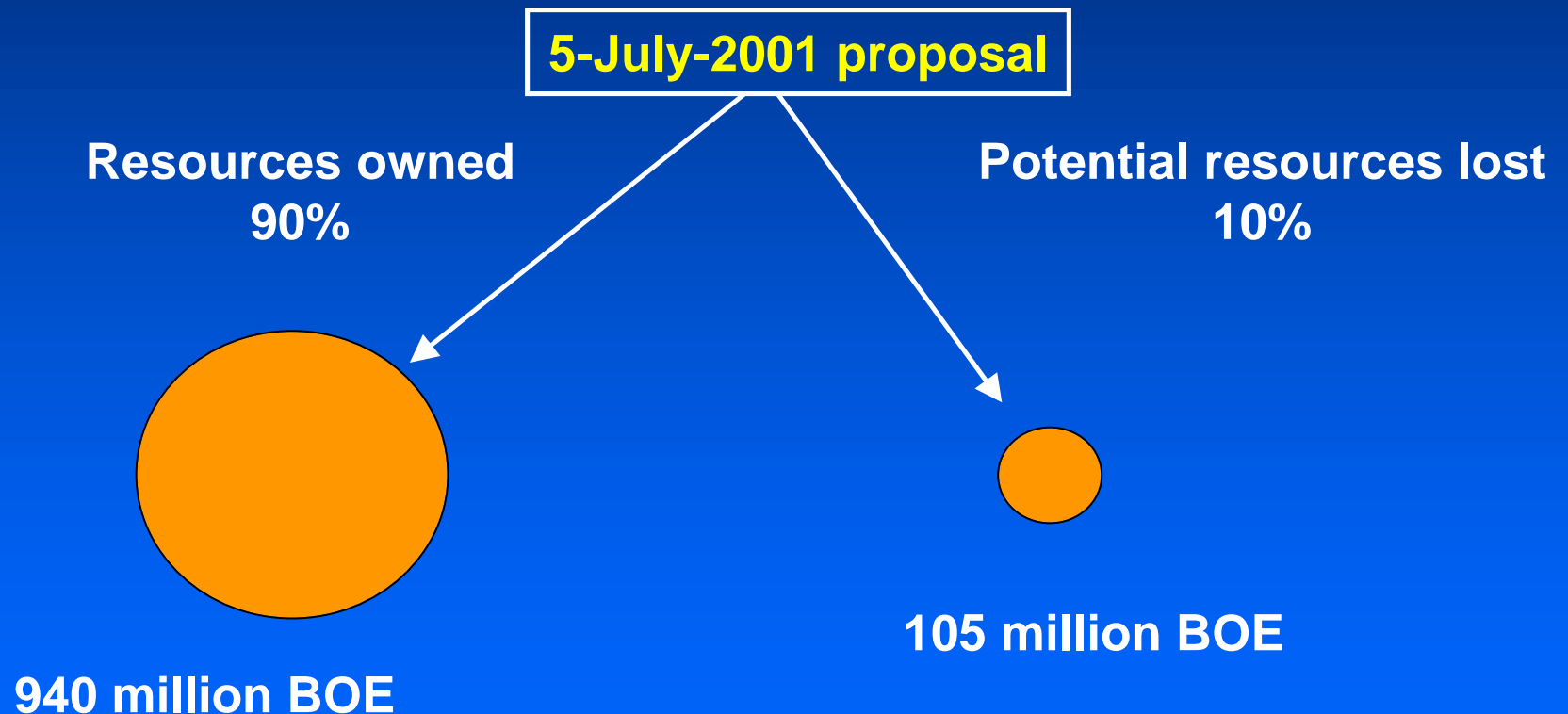
# Bayu-Undan gas condensate field

LPG: 175 million barrels

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} Energy  
1.05 billion  
barrels of oil equivalent (BOE)



# Bayu-Undan gas condensate field

LPG: 175 million barrels

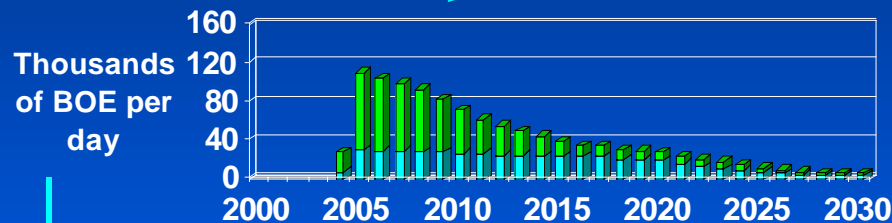
Condensate: 229 million barrels

Gas (LNG): 66 million tonnes

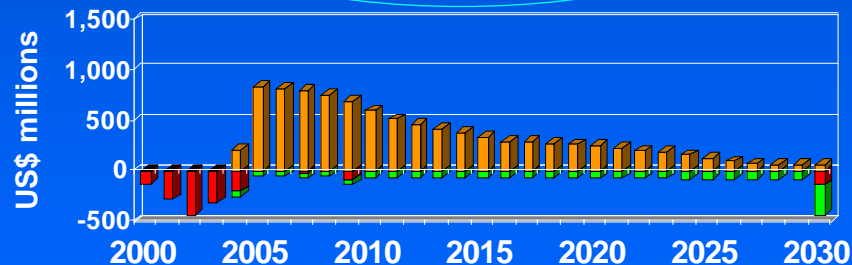
Liquids project

Production assumptions

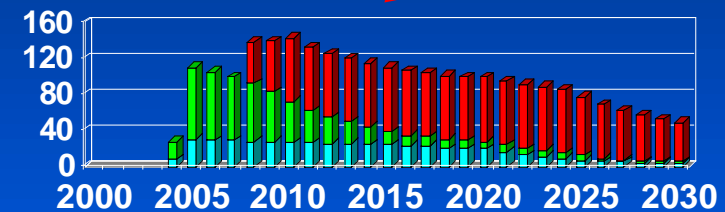
Offshore LNG prospect?



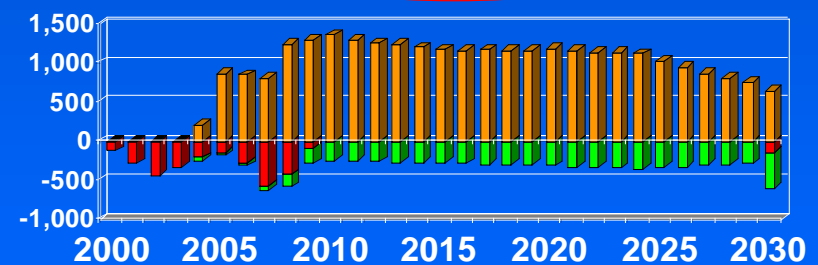
Gross sales revenue  
US\$9.5 billion



■ Capital cost ■ Operating cost ■ Gross product sales revenue

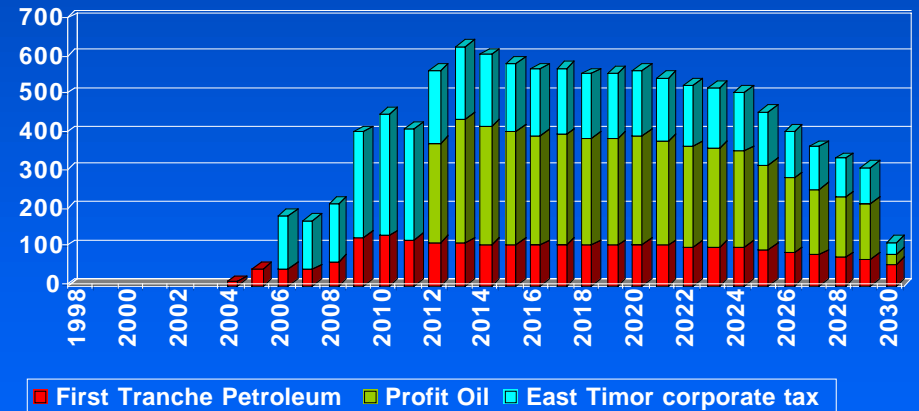
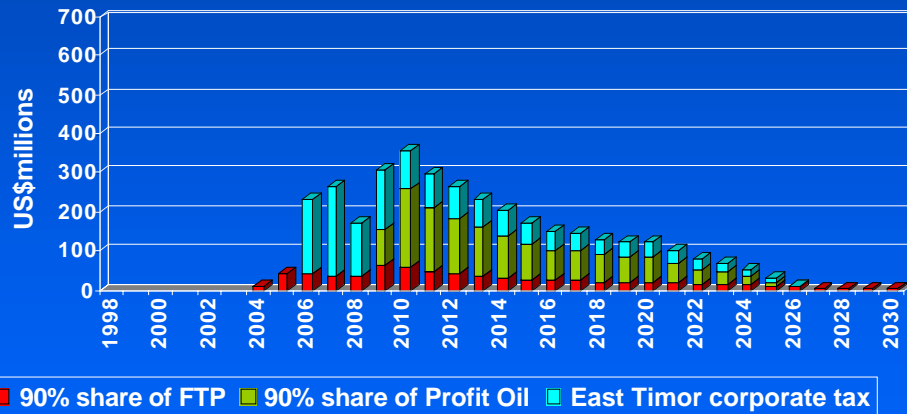


Gross sales revenue  
US\$28 billion



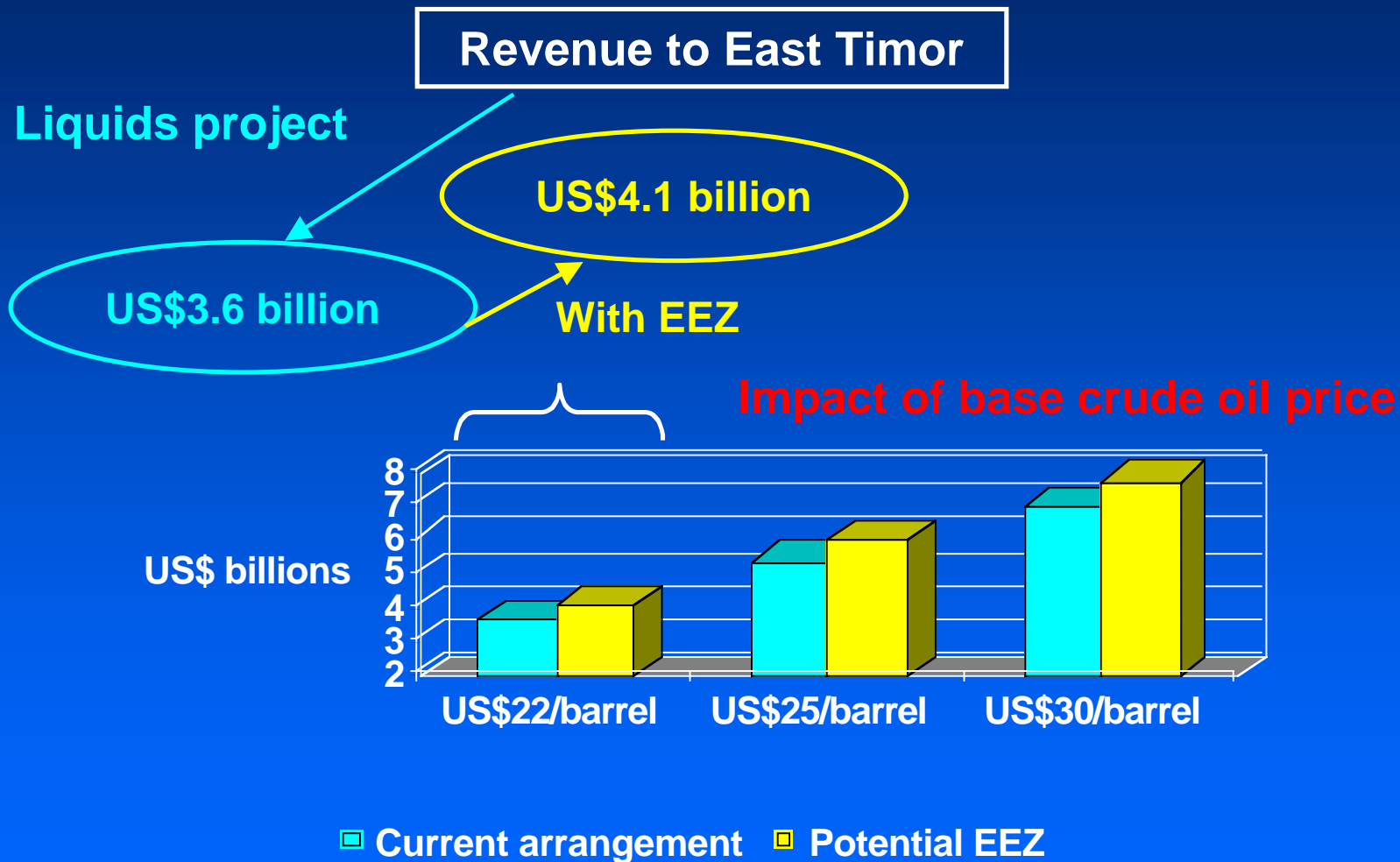
■ Capital cost ■ Operating cost ■ Gross product sales revenue

# Bayu-Undan gas condensate field



\* The present (real, de-escalated) values of these future cash flows are US\$2.8 billion and US\$7.7 billion respectively

# Bayu-Undan gas condensate field

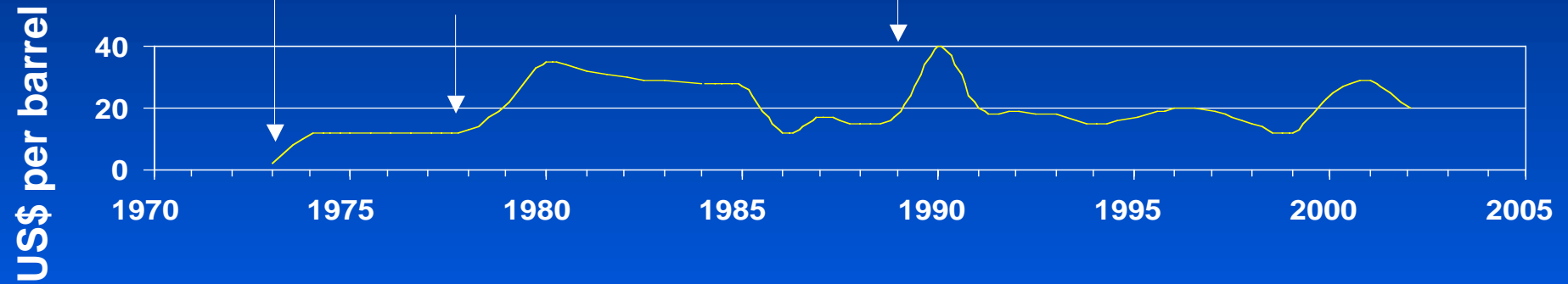


# Spot Crude oil prices 1973 - 2002

Arab oil embargo

Iranian revolution

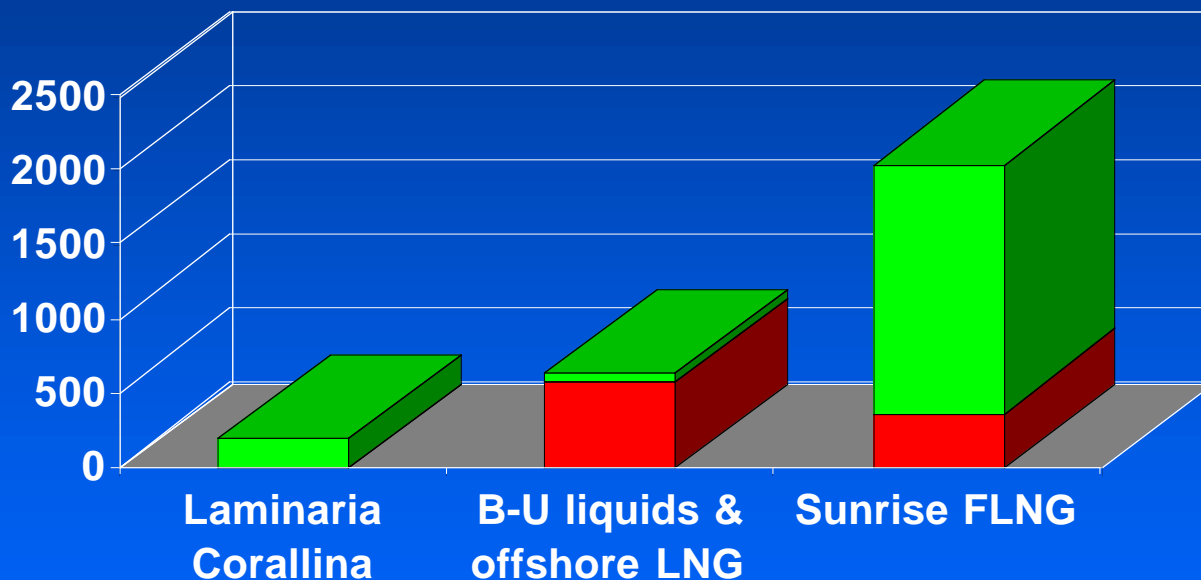
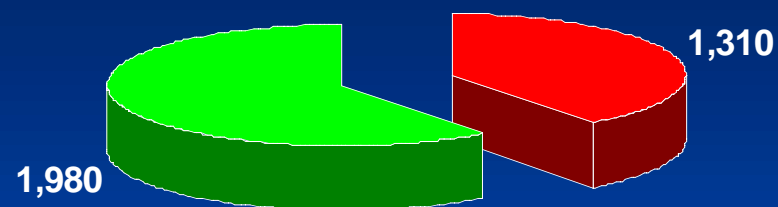
Gulf war



# Summary

## East Timor's indicative petroleum resources

Millions of barrels of oil equivalent



All 4 projects

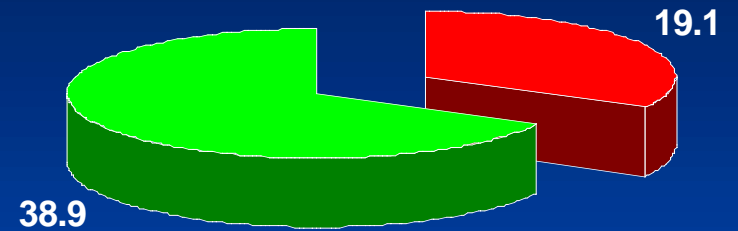
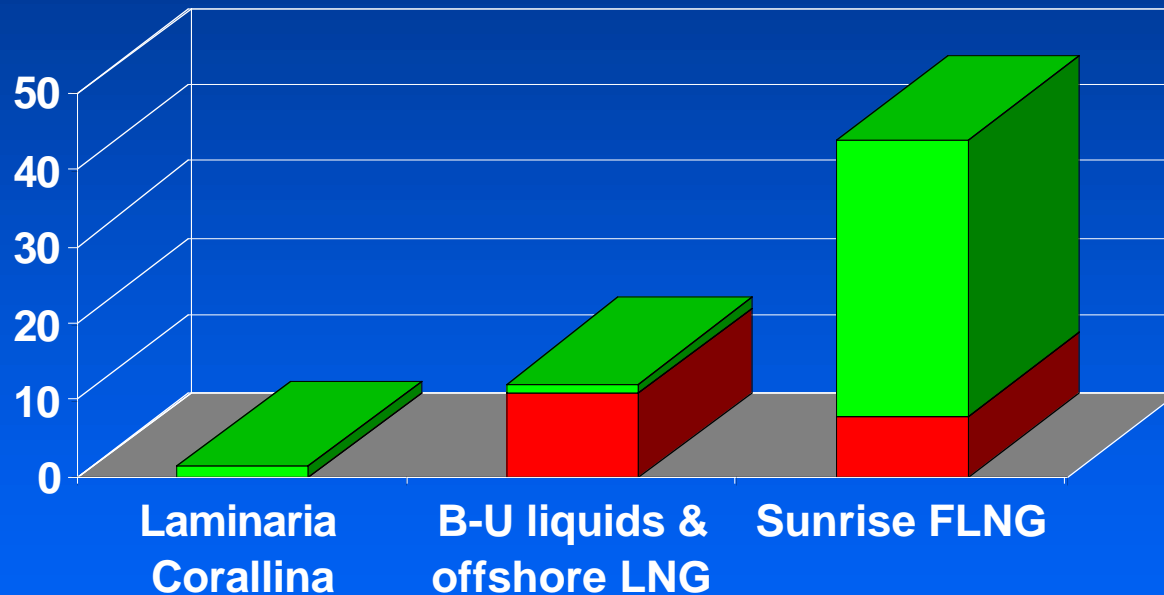
- Potential additional entitlements through EEZ delimitation
- Resource entitlements based on 5 July 2001 proposal

# Summary

## East Timor's indicative petroleum revenue

US\$ billions

As spent dollars of the day over life of projects



All 4 projects

- Potential additional revenue through EEZ delimitation
- Revenue based 5 July 2001 proposal