



## PRESS RELEASE

### CONCILIATION BETWEEN THE DEMOCRATIC REPUBLIC OF TIMOR-LESTE AND THE COMMONWEALTH OF AUSTRALIA

NEW YORK, 6 MARCH 2018

#### **Timor-Leste and Australia sign new Maritime Boundaries Treaty**

The Democratic Republic of Timor-Leste (“**Timor-Leste**”) and the Commonwealth of Australia (“**Australia**”) have today signed their new Maritime Boundaries Treaty. The signing ceremony, which took place at 5:00pm today at United Nations Headquarters in New York, constitutes the culmination of the international conciliation proceedings between Timor-Leste and Australia being conducted by a Conciliation Commission pursuant to the UN Convention on the Law of the Sea and under the auspices of the Permanent Court of Arbitration (the “**PCA**”). The signing of the new Maritime Boundaries Treaty was hosted by Secretary-General of the United Nations, H.E. Antonio Guterres, who witnessed the signature of the treaty along with the Chairman of the Conciliation Commission, H.E. Ambassador Peter Taksøe-Jensen, and the members of the Conciliation Commission, Dr. Rosalie Balkin, Judge Abdul G. Koroma, Professor Donald McRae, and Judge Rüdiger Wolfrum.

The new Maritime Boundaries Treaty delimits the maritime boundary between Timor-Leste and Australia in the Timor Sea. The agreement on the boundaries is comprehensive and final. It encompasses the delimitation of both the ‘continental shelf’ (which entails rights to exploit seabed resources, such as petroleum) and the ‘exclusive economic zone’ (which entails rights to exploit resources in the water column, such as fisheries).

The Treaty also addresses the legal status of the Greater Sunrise gas field, the establishment of a Special Regime for Greater Sunrise, and a pathway to the development of the resource. Upstream revenue from Greater Sunrise will be shared 70/30 in Timor-Leste’s favour if the field is developed by a pipeline to Timor-Leste, or 80/20 in Timor-Leste’s favour if the field is developed by a pipeline to Australia.

The Treaty signed by Timor-Leste and Australia forms part of the Comprehensive Package Agreement of 30 August 2017 concluded between them (the “30 August Agreement”). An integral part of the 30 August Agreement was the “action plan” for engagement leading to a decision on the development of the Greater Sunrise gas field. Pursuant to this action plan, the two governments and the Greater Sunrise Joint Venture (the licence holder to the resource) have engaged in intensive meetings and discussions since September of last year. With a view to providing the two governments with an informed basis to take a decision on the development of the shared resource, the Commission also engaged an independent expert with their agreement. At its final session in Kuala Lumpur last month, the Conciliation Commission presented its conclusions to the two governments on the basis of the expert advice received, in order to allow for a timely decision on the development of the shared resource.

Copies of the 30 August Agreement, the Maritime Boundaries Treaty, the Commission’s paper regarding the development of the shared resource, and the remarks delivered by the Chairman of the Conciliation Commission, H.E. Ambassador Peter Taksøe-Jensen, at the signing ceremony are enclosed herewith.

## **Next Steps**

The Commission's full report regarding the conciliation proceedings is expected to be made public in mid-April 2018, and will be deposited with Secretary-General of the United Nations in accordance with Annex V of the Convention.

## **Background on the Conciliation Process**

The Commission was constituted on 25 June 2016 pursuant to the procedure set out in Annex V of the Convention. The five-member Commission is chaired by H.E. Ambassador Peter Taksøe-Jensen (Denmark). The other members of the Commission are Dr. Rosalie Balkin (Australia), Judge Abdul G. Koroma (Sierra Leone), Professor Donald McRae (Canada and New Zealand), and Judge Rüdiger Wolfrum (Germany). With the agreement of the Parties, the Permanent Court of Arbitration acts as Registry in the proceedings.

These conciliation proceedings were initiated by Timor-Leste on 11 April 2016 by way of a "Notification Instituting Conciliation under Section 2 of Annex V of UNCLOS" addressed to Australia.

On 2 May 2016, Australia submitted "Australia's Response to the Notice of Conciliation".

On 28 July 2016, the Conciliation Commission held a procedural meeting with the Parties at the Peace Palace in The Hague, the Netherlands.

On 29, 30, and 31 August, the Commission convened the Opening Session of the Conciliation and a Hearing on Competence at the Peace Palace in The Hague, the Netherlands.

On 19 September 2016, the Commission rendered its Decision on Competence, finding that the Conciliation would continue.

From 10 to 13 October 2016, the Commission met with the Parties in Singapore.

On 9 January 2017, the Foreign Ministers of Timor-Leste and Australia, together with the Commission, issued a Trilateral Joint Statement on the termination of the Treaty on Certain Maritime Arrangements in the Timor Sea.

From 16 to 20 January 2017, the Commission met with the Parties in Singapore.

From 27 to 31 March 2017, the Commission met with the Parties in Washington, D.C.

From 5 to 9 June 2017, the Commission met with the Parties in Copenhagen.

From 24 to 28 July 2017, the Commission met with the Parties in Singapore.

From 28 August to 1 September 2017, the Commission met with the Parties in Copenhagen.

On 30 August 2017, the Parties reached a Comprehensive Package Agreement on the central elements of a maritime boundary delimitation between them in the Timor Sea (the "**30 August Agreement**"). In addition to boundaries, the Comprehensive Package Agreement addresses the legal status of the Greater Sunrise gas field, the establishment of a Special Regime for Greater Sunrise, a pathway to the development of the resource, and the sharing of the resulting revenue.

On 13 October 2017, following meetings in The Hague, the Parties reached agreement on the complete text of a draft treaty as anticipated in the 30 August Agreement. This draft treaty delimits the maritime boundary between them in the Timor Sea and addresses the legal status of the Greater Sunrise gas field,

the establishment of a Special Regime for Greater Sunrise, a pathway to the development of the resource, and the sharing of the resulting revenue.

On 18 November 2017, the Commission met with the Parties and the Greater Sunrise Joint Venture in Singapore.

From 12 to 14 December 2017, the Commission met with the Parties and the Joint Venture in Singapore.

From 29 January to 2 February 2018, the Commission met with the Parties and the Joint Venture in Sydney.

From 19 to 23 February 2018, the Commission held its final negotiating session with the Parties and the Joint Venture in Kuala Lumpur.

On 6 March 2018, the new Maritime Boundaries Treaty between Timor-Leste and Australia was signed in New York in the presence of the Secretary-General of the United Nations, H.E. Antonio Guterres, and the Conciliation Commission.

Further information about the conciliation may be found at [www.pca-cpa.org/en/cases/132/](http://www.pca-cpa.org/en/cases/132/), including the full text of the Commission's Decision on Competence, a video recording and transcript of the Opening Session, the presentations of the Parties, and previous press releases and Trilateral Joint Statements.

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### **Background on the Permanent Court of Arbitration**

The Permanent Court of Arbitration is an intergovernmental organization established by the 1899 Hague Convention on the Pacific Settlement of International Disputes. The PCA has 121 Contracting Parties. Headquartered at the Peace Palace in The Hague, the Netherlands, the PCA facilitates arbitration, conciliation, fact-finding, and other dispute resolution proceedings among various combinations of States, State entities, intergovernmental organizations, and private parties. The PCA's International Bureau is currently administering 4 interstate disputes, 87 investor-State arbitrations, and 49 cases arising under contracts involving a State or other public entity. More information about the PCA can be found at [www.pca-cpa.org](http://www.pca-cpa.org).

Contact: Permanent Court of Arbitration  
E-mail: [bureau@pca-cpa.org](mailto:bureau@pca-cpa.org)

## COMPREHENSIVE PACKAGE AGREEMENT

30 AUGUST 2017

### *Western Boundary:*

- The western boundary (Segment A1) is a boundary for the continental shelf regime only.
- Segment A1 runs in a southerly direction from point A17 until it reaches the line of the 1997 Treaty between Australia and Indonesia at point TA-1.
- Segment A1 is a provisional boundary until Timor-Leste (a) concludes a seabed boundary with Indonesia and (b) the existing Coralina and Laminaria fields are decommissioned. Thereafter, the boundary will be adjusted to run as a geodetic line from point TA-1:
  - to any point between points A17 and A18 at which the continental shelf boundary between Timor-Leste and Indonesia meets the 1972 Treaty between Indonesia and Australia; or
  - to point A18, if the boundary between Timor-Leste and Indonesia meets the 1972 Treaty to the west of point A18.

### *Southern Boundary:*

- Segment A2 of the southern boundary is a boundary for the continental shelf regime only.
- Segment A2 follows the line of the 1997 Treaty between Australia and Indonesia until point TA-2.
- Segments B and C of the southern boundary are a comprehensive maritime boundary for both the continental shelf and exclusive economic zone.
- Segment B runs as a geodetic line from point TA-2 until it reaches the median line at point TA-3.
- Segment C follows the median line from point TA-3 to point TA-4.

### *Eastern Boundary:*

- The eastern boundary (Segments D and E) is a boundary for the continental shelf regime only.
- Boundary runs to the east of Greater Sunrise before turning to connect back to point A16:
  - Segment D runs as a geodetic line from point TA-4 to point TA-5.
  - Segment E runs as a geodetic line from point TA-5 to point A16 on the line of the 1972 Treaty between Australia and Indonesia.
- Segment E of the boundary crosses the Greater Sunrise field in a proportion that is roughly congruent with the division of revenue from the resource.
- To the north of point X, Segments D and E are a provisional boundary until (a) Timor-Leste concludes a seabed boundary with Indonesia and (b) the existing Sunrise and Troubador fields are decommissioned. Thereafter, the boundary will run as a geodetic line from point X to the point at which the continental shelf boundary between Timor-Leste and Indonesia meets the 1972 Treaty between Indonesia and Australia.

### ***Special Regime Elements***

- Special Regime area equals the Greater Sunrise unitisation area.
- The treaty would provide that:
  - “(a) Within the Special Regime area, Timor-Leste and Australia jointly exercise their rights as coastal States pursuant to Article 77 of the United Nations Convention on the Law of the Sea.
  - (b) Governance and the exercise of jurisdiction within the Special Regime area are as set out in Annex ## to this Treaty.”
- The Parties will agree to a revenue split. The revenue split will depend on the choice of development concept in order to reflect the impact of the downstream elements of the project and the broader economic benefits of the project.
  - Timor LNG: sharing of upstream revenue in the proportion of 70:30 in Timor-Leste’s favour, reflecting downstream operations and broader economic benefits.
  - Darwin LNG: sharing of upstream revenue in the proportion of 80:20 in Timor-Leste’s favour, reflecting downstream operations and broader economic benefits.
- Joint governance of Special Regime area (details to be elaborated and included in Annex ## to treaty).

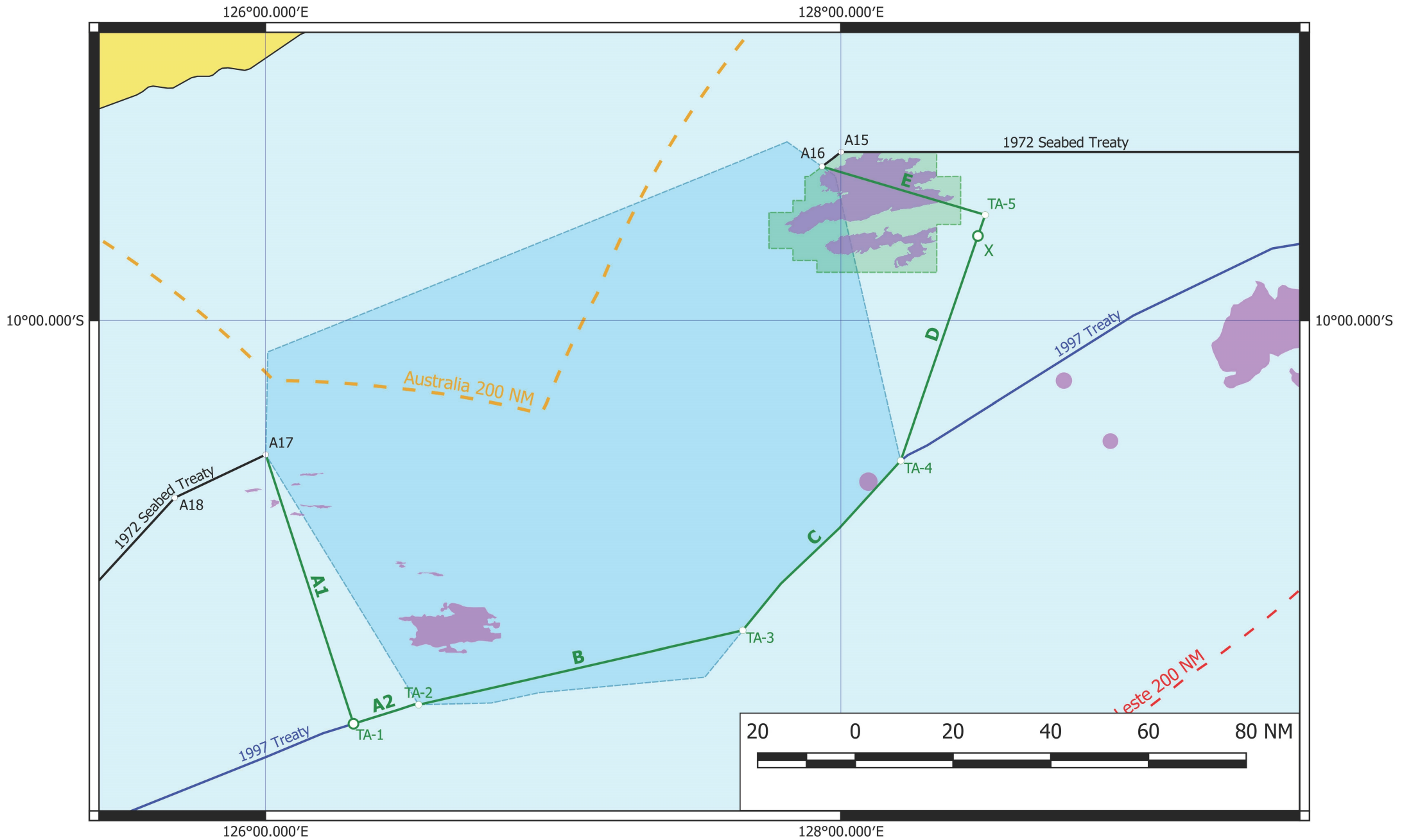
### ***Mechanism for Development Concept***

- Treaty to include a mechanism for engaging with the Sunrise Joint Venture and ensuring that a decision is taken with respect to the development concept.
- Details of mechanism are set out in Annex B to this document.

### ***Other Resources***

- Timor-Leste would obtain all future upstream revenue from Bayu-Undan, Buffalo, and Kitan fields.
- Governance and regulatory arrangements for currently operating Bayu-Undan and Kitan fields would be “grandfathered” (i.e. maintained as is).
- Transition of Buffalo field into Timor-Leste’s jurisdiction would be covered by transitional arrangements which guarantee equivalent terms and conditions.
- No compensation for past exploitation.

# Annex A: Sketch Map



## **ANNEX B: APPROACH ON THE GREATER SUNRISE DEVELOPMENT CONCEPT**

- Following agreement in principle on the elements of a boundary agreement and Greater Sunrise Special Regime (“GSSR”), Timor-Leste and Australia to begin joint engagement with Joint Venture, with a view to a timely and informed decision on the development concept for Greater Sunrise (the “Development Concept”) in accordance with the Criteria and Action Plan set forth below.
- The Development Concept will include:
  - Description of development strategy, consistent with good oilfield practice;
  - Commercial viability assessment;
  - Technical viability assessment;
  - Local content opportunities;
  - Timor-Leste development; and
  - Timor-Leste equity.
- The criteria for the assessment of proposals for the Development Concept (the “Criteria”) shall be:
  - the Development Concept is commercially viable, including best commercial advantage;
  - the Development Concept is technically feasible;
  - the Development Concept supports the development objectives and needs of each of Timor-Leste and Australia, while at the same time providing a fair return to the Joint Venture;
  - the Development Concept demonstrates a significant contribution to the sustainable economic development of Timor-Leste, including through clear and measurable local content commitments;
  - the Development Concept is consistent with good oilfield practice;
  - the Joint Venture has, or has access to, the financial and technical competence to carry out the development of the Greater Sunrise field; and
  - the Joint Venture could reasonably be expected to carry out the Development Concept during the specified period.
- The Parties agree to not unreasonably refuse the development plan for the agreed Development Concept.
- The Commission may intervene, at any stage of the Action Plan, to engage on behalf of the Parties with the Joint Venture, or at the request of either Party, to engage with the Parties.
- Following the entry into force of the boundary agreement and GSSR, governance of the GSSR shall transfer to the Designated Authority and Governance Board in accordance with the terms of the GSSR.
- The relationship between the GSSR agreement, the agreement on the Development Concept, and the trilateral agreement with the Joint Venture to be addressed by the Commission in due course.

## ACTION PLAN

### **1. Parties engage with the Joint Venture**

The following activities will be commenced immediately following the conclusion of the current meetings with the Commission:

- Parties provide all relevant information to the JV, and to each other, for further and more comprehensive analysis of the TLNG concept, in particular, any Timor-Leste financial contributions/subsidies towards the capital costs of TLNG
- Parties agree to timeline and procedures for delivery of such information and analysis from the JV. Timeline must ensure sufficient time for joint or separate analysis by the Parties
- Detailed request for further and more comprehensive information from the JV (via a letter from the Commission) including engaging in respect of:
  - South Coast development options
  - Local Content obligations
  - Equity participation for Timor-Leste
  - Fiscal arrangements/model for the project
- Regular engagement with the JV to ensure that at the completion of the process the Parties have access to all necessary information and analysis in order to reach an informed decision

### **2. Joint Venture Responds to the Parties**

By 1 November 2017, the following tasks shall have been completed:

- Following JV response to Parties' requests for information and analysis, Parties to meet to consider information and analysis provided by the JV and determine whether any additional information or analysis remains outstanding for DLNG and/or TLNG
- Parties to review (including as necessary with their own independent experts) information and analysis provided by the JV for DLNG and/or TLNG
- Parties report back to the Commission at the October Commission meeting to provide an update on the process and identify any concerns regarding progress and/or information and analysis from the JV, with a view to Commission engagement if any blockage was identified

### **3. Parties Assess Options and Decide Development Concept**

By 15 December 2017, the following tasks shall have been completed:

- Parties undertake assessment of Development Concept on the basis of the Criteria
- Parties agree to the Development Concept

### **4. Further Procedure**

- Following agreement by the Parties on the Development Concept, Parties sign a trilateral agreement with the JV for the Development Concept including, among other things, terms on fiscal regime, the approval of operator, and the security of title
- If the Parties are unable to agree to the Development Concept in accordance with the Criteria ahead of 15 December 2017, the Commission shall engage with the Parties with a view to facilitating agreement on the Development Concept by no later than 1 February 2018



## **TREATY BETWEEN THE DEMOCRATIC REPUBLIC OF TIMOR-LESTE AND AUSTRALIA ESTABLISHING THEIR MARITIME BOUNDARIES IN THE TIMOR SEA**

THE GOVERNMENT OF THE DEMOCRATIC REPUBLIC OF TIMOR-LESTE (**Timor-Leste**) and THE GOVERNMENT OF AUSTRALIA (**Australia**) (hereinafter referred to as the **Parties**);

HAVING REGARD to the United Nations Convention on the Law of the Sea, done at Montego Bay on 10 December 1982 (the **Convention**);

TAKING INTO PARTICULAR ACCOUNT Articles 74(1) and 83(1) of the Convention, regarding the delimitation of the exclusive economic zone and the continental shelf;

WISHING to delimit the maritime areas between Timor-Leste and Australia in the Timor Sea;

WISHING ALSO in this context to establish a special regime for the Greater Sunrise Fields for the benefit of both Parties;

REAFFIRMING the importance of developing and managing the living and non-living resources of the Timor Sea in an economically and environmentally sustainable manner, and the importance of promoting investment and long-term development in Timor-Leste and Australia;

HAVING REACHED, with the assistance of the Conciliation Commission established under Article 298 and Annex V of the Convention, an overall negotiated solution to the dispute between the Parties concerning the delimitation of their permanent maritime boundaries;

RECOGNISING that there exists an inextricable link between the delimitation of the maritime boundaries and the establishment of the special regime for the Greater Sunrise Fields and that both elements are integral to the agreement of the Parties to this Treaty;

CONSCIOUS of the importance of promoting Timor-Leste's economic development;

REAFFIRMING that benefits will flow to both Timor-Leste and Australia from the establishment of a stable long-term basis for Petroleum Activities in the area of seabed between Timor-Leste and Australia;

RESOLVING as good neighbours and in a spirit of co-operation and friendship, to settle finally their maritime boundaries in the Timor Sea in order to achieve an equitable solution;

ACKNOWLEDGING that the settlement contained in this Treaty is based on a mutual accommodation between the Parties without prejudice to their respective legal positions;

AFFIRMING the compatibility of this Treaty with the Convention;

AFFIRMING that nothing in this Treaty shall be interpreted as prejudicing the rights of third States with regard to delimitation of the exclusive economic zone and the continental shelf in the Timor Sea;

HAVE AGREED as follows:

### **Article 1: Definitions**

1. For the purposes of this Treaty, including its Annexes:

- (a) "1972 Seabed Treaty Boundary" means the boundary established by Articles 1 and 2 of the Agreement between the Government of the Commonwealth of Australia and the Government of the Republic of Indonesia Establishing Certain Seabed Boundaries in the Area of the Timor and Arafura Seas, supplementary to the Agreement of 18 May 1971 (Jakarta, 9 October 1972);

- (b) "Bayu-Undan Pipeline" means the export pipeline which transports gas produced from the Bayu-Undan Gas Field to the Darwin liquefied natural gas processing facility at Wickham Point;
- (c) "Bayu-Undan Gas Field" means the field which, at the time of signing of this Treaty, is subject to the Production Sharing Contracts JPDA 03-12 and JPDA 03-13;
- (d) "Buffalo Oil Field" means the field known as Buffalo which, at the time of the signing of this Treaty, lies in the WA-523-P exploration permit area;
- (e) "Commercial Depletion" means the date by which the relevant authority confirms that the contractor or titleholder has fulfilled all of its production and decommissioning obligations under the relevant development or decommissioning plan, contract or licence and that the relevant contract or licence has terminated or otherwise expired;
- (f) "Development Concept" means the basic terms on which the Greater Sunrise Fields are to be developed;
- (g) "Development Plan" means the development, exploitation and management plan for the Petroleum in the Greater Sunrise Fields consistent with Good Oilfield Practice, including, but not limited to, details of the sub-surface evaluation and facilities, production facilities, the production profile for the expected life of the project, the expected life of the fields, the estimated capital and non-capital expenditure covering the feasibility, fabrication, installation and pre-production stages of the project, which is approved and assessed in accordance with the criteria established in Article 9(3) of Annex B of this Treaty;
- (h) "Good Oilfield Practice" means such practices and procedures employed in the petroleum industry worldwide by prudent and diligent operators under conditions and circumstances similar to those experienced in connection with the relevant aspects of Petroleum operations, having regard to relevant factors including:
  - (i) conservation of Petroleum, which includes the utilisation of methods and processes to maximise the recovery of hydrocarbons in a technically and economically efficient manner, and to minimise losses at the surface;
  - (ii) operational safety, which entails the use of methods and processes aimed at preventing major accident events and occupational health and safety incidents; and
  - (iii) environmental protection, which calls for the adoption of methods and processes that minimise the impact of the Petroleum operations on the environment;
- (i) "Greater Sunrise Contractor" means all those individuals or bodies corporate holding from time to time a permit, lease, licence or contract in respect of an area within the Special Regime Area under which exploitation, including any appraisal activities related to that exploitation, and production of Petroleum may be carried out;
- (j) "Greater Sunrise Fields" means that part of the rock formation known as the Plover Formation (Upper and Lower) that underlies the Special Regime Area and contains the Sunrise and Troubadour deposits of Petroleum, together with any extension of those deposits that is in direct hydrocarbon fluid communication with either deposit;
- (k) "Greater Sunrise Production Sharing Contract" means the contract entered into in accordance with Article 4 of Annex B of this Treaty, between the Designated Authority and

the Greater Sunrise Contractor for the development of, and production from, the Greater Sunrise Fields and replacing Production Sharing Contracts JPDA 03-19 and JPDA 03-20 and Retention Leases NT/RL2 and NT/RL4;

- (l) "International Unitisation Agreement" means the Agreement between the Government of Australia and the Government of the Democratic Republic of Timor-Leste relating to the Unitisation of the Sunrise and Troubadour Fields (Dili, 6 March 2003);
- (m) "Kitan Oil Field" means the field which, at the time of signing this Treaty, is subject to the Production Sharing Contract JPDA 06-105;
- (n) "Laminaria and Corallina Fields" means the fields known as Laminaria and Corallina which, at the time of the signing of this Treaty, lie partly in the AC/L5 and WA-18-L production licence areas;
- (o) "Petroleum" means:
  - (i) any naturally occurring hydrocarbon, whether in a gaseous, liquid or solid state;
  - (ii) any naturally occurring mixture of hydrocarbons, whether in a gaseous, liquid or solid state; or
  - (iii) any naturally occurring mixture of one or more hydrocarbons, whether in a gaseous, liquid or solid state, as well as other gaseous substances produced in association with such hydrocarbons, including, but not limited to, helium, nitrogen, hydrogen sulphide and carbon dioxide; andincludes any Petroleum as defined by sub-paragraph (i), (ii) or (iii) that has been returned to a natural reservoir;
- (p) "Petroleum Activities" means all activities undertaken to produce Petroleum, authorised or contemplated under a contract, permit or licence, and includes exploration, development, initial processing, production, transportation and marketing, as well as the planning and preparation for such activities;
- (q) "Pipeline" means any pipeline by which Petroleum is discharged from the Special Regime Area;
- (r) "Production Sharing Contract" means a contract between the Designated Authority, whether as established under this Treaty or as established under the Timor Sea Treaty, and a limited liability corporation or entity with limited liability under which production from a specified area is shared between the parties to the contract;
- (s) "Retention Leases" means the retention leases granted by Australia pursuant to the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (Cth) to individuals or bodies corporate, as renewed from time to time, referred to as Retention Lease NT/RL2 and Retention Lease NT/RL4;
- (t) "Special Regime Area" means the area of the continental shelf described in Annex C of this Treaty;
- (u) "Special Regime Installation" means any installation, structure or facility located within the Special Regime Area for the purposes of engaging in or conducting Petroleum Activities;

- (v) "Timor Sea Treaty" means the Timor Sea Treaty between the Government of East Timor and the Government of Australia (Dili, 20 May 2002); and
- (w) "Valuation Point" means the point of the first commercial sale of Petroleum produced from the Special Regime Area which shall occur no later than the earlier of:
  - (i) the point where the Petroleum enters a pipeline; and
  - (ii) the marketable petroleum commodity point for the Petroleum.

2. Unless otherwise expressly provided, terms in this Treaty are to be given the same meaning as in the Convention.

**Article 2: Continental Shelf Boundary**

1. Subject to Article 3 of this Treaty, the continental shelf boundary between the Parties in the Timor Sea comprises the geodesic lines connecting the following points:

Point	Latitude	Longitude
TA-1	10° 27' 54.91"S	126° 00' 04.40"E
TA-2	11° 24' 00.61"S	126° 18' 22.48"E
TA-3	11° 21' 00.00"S	126° 28' 00.00"E
TA-4	11° 20' 00.00"S	126° 31' 00.00"E
TA-5	11° 20' 02.90"S	126° 31' 58.40"E
TA-6	11° 04' 37.65"S	127° 39' 32.81"E
TA-7	10° 55' 20.88"S	127° 47' 08.37"E
TA-8	10° 53' 36.88"S	127° 48' 49.37"E
TA-9	10° 43' 37.88"S	127° 59' 20.36"E
TA-10	10° 29' 11.87"S	128° 12' 28.36"E
TA-11	09° 42' 21.49"S	128° 28' 35.97"E
TA-12	09° 37' 57.54"S	128° 30' 07.24"E
TA-13	09° 27' 54.88"S	127° 56' 04.35"E

- 2. The line connecting points TA-1 and TA-2, and the lines connecting points TA-11, TA-12, and TA-13 are "Provisional", which for the purposes of this Treaty means that they are subject to adjustment in accordance with Article 3 of this Treaty.
- 3. For the purposes of this Treaty, all coordinates are determined by reference to the World Geodetic System 1984. For the purposes of this Treaty, the World Geodetic System 1984 shall be deemed equivalent to the Geodetic Datum of Australia 1994.

**Article 3: Adjustment of the Continental Shelf Boundary**

- 1. Should Timor-Leste and Indonesia agree an endpoint to their continental shelf boundary west of point A17 or east of point A16 on the 1972 Seabed Treaty Boundary, the continental shelf boundary between Timor-Leste and Australia shall be adjusted in accordance with paragraphs 2, 3 and 4 of this Article.
- 2. On the later of:
  - (a) the Commercial Depletion of the Laminaria and Corallina Fields; and
  - (b) the entry into force of an agreement between Timor-Leste and Indonesia delimiting the continental shelf boundary between those two States,

the continental shelf boundary between Timor-Leste and Australia shall, unless paragraph 3 of this Article applies, be adjusted so that it proceeds in a geodesic line from point TA-2, as defined in Article 2(1) of this Treaty, to a point between points A17 and A18 on the 1972 Seabed Treaty Boundary at which the continental shelf boundary agreed between Timor-Leste and Indonesia meets the 1972 Seabed Treaty Boundary.

3. In the event that the continental shelf boundary agreed between Timor-Leste and Indonesia meets the 1972 Seabed Treaty Boundary at a point to the west of point A18 on the 1972 Seabed Treaty Boundary, the continental shelf boundary shall be adjusted so that it proceeds in a geodesic line from point TA-2, as defined in Article 2(1) of this Treaty, to point A18.
4. On the later of:
  - (a) the Commercial Depletion of the Greater Sunrise Fields; and
  - (b) the entry into force of an agreement between Timor-Leste and Indonesia delimiting the continental shelf boundary between those two States,

the continental shelf boundary between Timor-Leste and Australia shall be adjusted so that it proceeds in a geodesic line from point TA-11, as defined in Article 2(1) of this Treaty, to the point at which the continental shelf boundary agreed between Timor-Leste and Indonesia meets the 1972 Seabed Treaty Boundary.

#### **Article 4: Exclusive Economic Zone Boundary**

1. The exclusive economic zone boundary between the Parties in the Timor Sea comprises the geodesic lines connecting the following points:

Point	Latitude	Longitude
TA-5	11° 20' 02.90"S	126° 31' 58.40"E
TA-6	11° 04' 37.65"S	127° 39' 32.81"E
TA-7	10° 55' 20.88"S	127° 47' 08.37"E
TA-8	10° 53' 36.88"S	127° 48' 49.37"E
TA-9	10° 43' 37.88"S	127° 59' 20.36"E
TA-10	10° 29' 11.87"S	128° 12' 28.36"E

2. The Parties may agree to extend the exclusive economic zone boundary established by paragraph 1 of this Article, as necessary.

#### **Article 5: Depiction of Maritime Boundaries**

The maritime boundaries described in Articles 2 and 4 of this Treaty are depicted for illustrative purposes at Annex A of this Treaty.

#### **Article 6: Without Prejudice**

1. Nothing in this Treaty shall be interpreted as prejudicing negotiations with third States with regard to delimitation of the exclusive economic zone and the continental shelf in the Timor Sea.
2. In exercising their rights as coastal States, the Parties shall:

- (a) provide due notice of activities conducted on the continental shelf and in the exclusive economic zone consistent with the terms of the Convention; and
- (b) not infringe upon or unjustifiably interfere with the exercise of rights and freedoms of other States as provided for in the Convention.

#### **Article 7: Greater Sunrise Special Regime**

1. The Parties hereby establish the Greater Sunrise Special Regime as set out in Annex B of this Treaty for the Special Regime Area.
2. Within the Special Regime Area, the Parties shall jointly exercise their rights as coastal States pursuant to Article 77 of the Convention.
3. The governance and exercise of jurisdiction within the Special Regime Area is as set out in the Greater Sunrise Special Regime.
4. Except as provided in this Treaty, the rights and obligations of the Parties in the Special Regime Area are governed by the Convention.
5. When the Greater Sunrise Special Regime ceases to be in force, the Parties shall individually exercise their rights as coastal States pursuant to Article 77 of the Convention on the basis of the continental shelf boundary as delimited by this Treaty.
6. Except as provided in Article 3 of this Treaty, the entry into force of an agreement between Timor-Leste and Indonesia delimiting the continental shelf boundary between those two States shall have no effect on the Greater Sunrise Special Regime.

#### **Article 8: Straddling Deposits**

If any Petroleum deposit extends across the continental shelf boundary as defined in Articles 2 and 3 of this Treaty, the Parties shall work expeditiously and in good faith to reach agreement as to the manner in which that deposit is to be most effectively exploited and equitably shared.

#### **Article 9: Previous Agreements**

1. Upon the entry into force of this Treaty, the following agreements shall cease to be in force:
  - (a) the Timor Sea Treaty; and
  - (b) the International Unitisation Agreement.
2. This Treaty shall have no effect on rights or obligations arising under the agreements set out in paragraph 1 of this Article while they were in force.

#### **Article 10: Compensation**

The Parties agree that neither Party shall have a claim for compensation with respect to Petroleum Activities conducted in the Timor Sea as a result of:

- (a) the cessation of the Joint Petroleum Development Area as established by Article 3 of the Timor Sea Treaty upon termination of that treaty;

- (b) the establishment of the continental shelf boundary under this Treaty;
- (c) an adjustment to the continental shelf boundary as a result of the application of Article 3 of this Treaty; or
- (d) the cessation of the Greater Sunrise Special Regime.

#### **Article 11: Permanence of the Treaty**

1. The Parties agree that this Treaty shall not be subject to a unilateral right of denunciation, withdrawal or suspension.
2. This Treaty may be amended only by agreement between the Parties, and by express provision to that effect.
3. The Annexes to this Treaty form an integral part thereof.
4. All of the provisions of this Treaty are inextricably linked and form a single whole. The provisions of this Treaty are not separable in any circumstances, and each provision of this Treaty constitutes an essential basis of the Parties' agreement to be bound by this Treaty as a whole.

#### **Article 12: Settlement of Disputes**

1. Without prejudice to paragraph 3 of this Article, for a period of five years following the entry into force of this Treaty, any dispute regarding the interpretation or application of this Treaty which is not settled by negotiation within six months of either Party notifying the other Party of the existence of the dispute, may be submitted by the Parties jointly to one or more members of the Conciliation Commission.
2. Once the dispute has been submitted in accordance with paragraph 1 of this Article, the member or members of the Conciliation Commission shall hear the Parties, examine their claims and objections, and make proposals to the Parties with a view to reaching an amicable settlement.
3. Subject to paragraph 4 of this Article, any dispute concerning the interpretation or application of this Treaty, which cannot be settled by negotiation within six months of either Party notifying the other Party of the existence of the dispute, may be submitted by either Party to an arbitral tribunal in accordance with Annex E of this Treaty.
4. The Parties shall not submit to an arbitral tribunal under this Article any dispute concerning the interpretation or application of Article 2, 3, 4, 5, 7 or 11, Annex A or Annex D of this Treaty, or any dispute falling within the scope of Article 8 of Annex B, which shall be settled in accordance with the provisions of that Article.

#### **Article 13: Entry into Force**

This Treaty shall enter into force on the day on which Timor-Leste and Australia have notified each other in writing through diplomatic channels that their respective requirements for entry into force of this Treaty have been fulfilled.

#### **Article 14: Registration**

The Parties shall transmit this Treaty by joint letter to the Secretary-General of the United Nations for registration in accordance with the provisions of Article 102 of the Charter of the United Nations.

IN WITNESS WHEREOF, the undersigned, being duly authorised thereto by their respective Governments, have signed this Treaty.

DONE at New York, on this sixth day of March, two thousand and eighteen, in two counterparts in English and Portuguese. In the event of a discrepancy, the English language version shall prevail.

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His Excellency Hermenegildo Augusto Cabral Pereira

Minister in the Office of the Prime Minister for the Delimitation of Borders and the Agent in the Conciliation  
For the Government of the Democratic Republic of Timor-Leste

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The Hon Julie Bishop MP

Minister for Foreign Affairs

For the Government of Australia

IN THE PRESENCE OF the Chair of the Conciliation Commission,

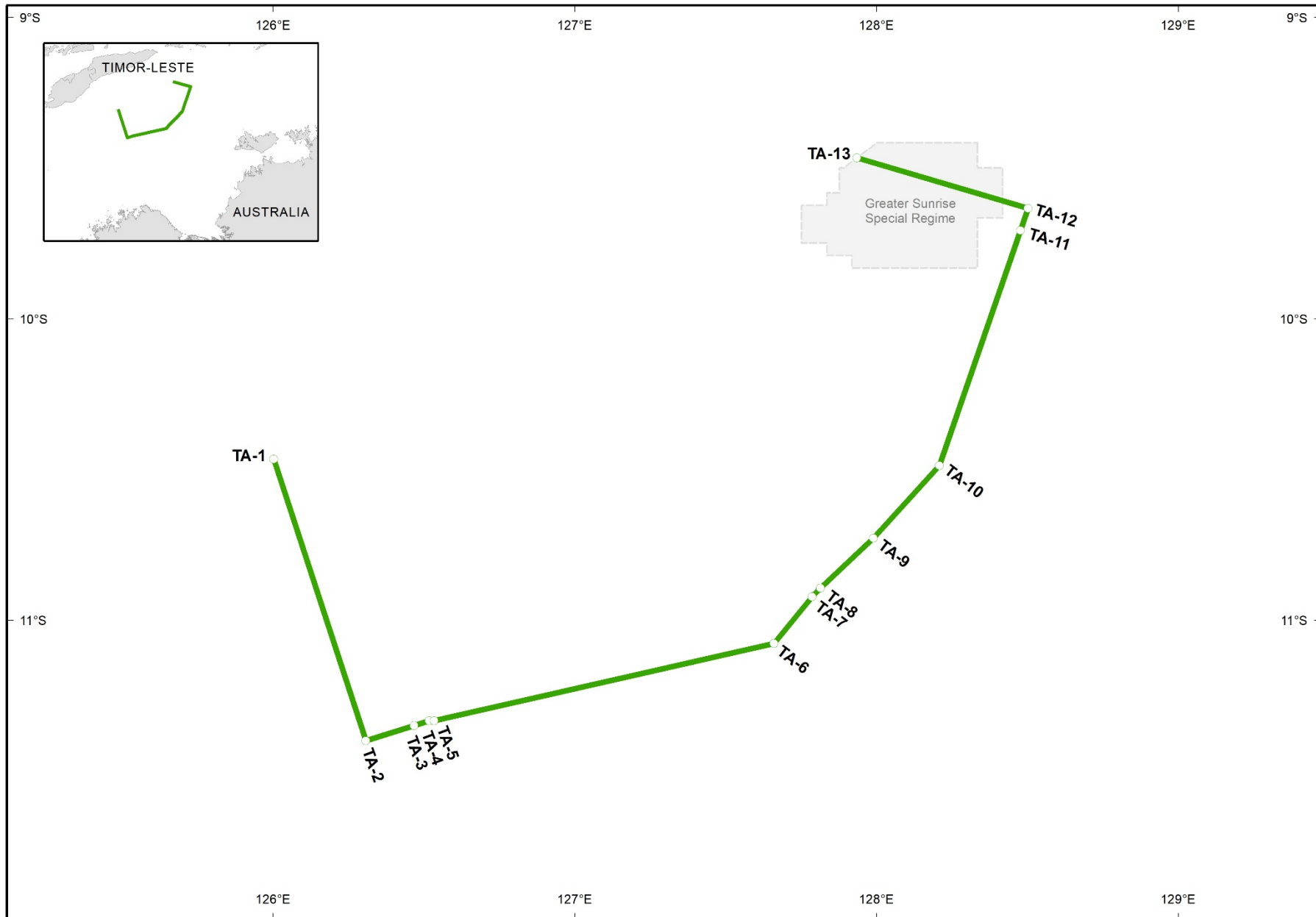
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His Excellency Ambassador Peter Taksøe-Jensen

Signed in the presence of the Secretary-General of the United Nations, His Excellency António Manuel de Oliveira Guterres.



ANNEX A: Depiction of Maritime Boundaries as Described in Articles 2 and 4 of the Treaty (Article 5)



## **ANNEX B: Greater Sunrise Special Regime**

### **Article 1: Objective of the Greater Sunrise Special Regime**

The objective of the Greater Sunrise Special Regime is the joint development, exploitation and management of Petroleum in the Greater Sunrise Fields for the benefit of both Parties.

### **Article 2: Title to Petroleum and Revenue Sharing**

1. Timor-Leste and Australia shall have title to all Petroleum produced in the Greater Sunrise Fields.
2. The Parties shall share upstream revenue, meaning revenue derived directly from the upstream exploitation of Petroleum produced in the Greater Sunrise Fields:
  - (a) in the ratio of 70 per cent to Timor-Leste and 30 per cent to Australia in the event that the Greater Sunrise Fields are developed by means of a Pipeline to Timor-Leste; or
  - (b) in the ratio of 80 per cent to Timor-Leste and 20 per cent to Australia in the event that the Greater Sunrise Fields are developed by means of a Pipeline to Australia.
3. For the purposes of this Annex, upstream revenue is limited to first tranche petroleum, profit petroleum and taxation in accordance with Article 3 of this Annex.

### **Article 3: Taxation**

1. Subject to paragraph 3 of this Article, upstream revenue includes taxation by the Parties as applicable in accordance with their respective laws. The Parties shall provide each other with a list of the applicable taxes.
2. The application of the Parties' taxation law shall be specified in the fiscal regime as agreed between the Parties and the Greater Sunrise Contractor, in accordance with obligations under Article 22 of the Timor Sea Treaty and Article 27 of the International Unitisation Agreement.
3. Taxation under paragraph 1 of this Article shall only apply in respect of Petroleum Activities and Special Regime Installations prior to the Valuation Point.
4. Timor-Leste taxation law shall apply to all other activities related to the development and exploitation of Petroleum in the Special Regime Area, unless otherwise provided for by the terms of this Treaty.

### **Article 4: Greater Sunrise Production Sharing Contract**

As soon as practicable, the Designated Authority shall enter into the Greater Sunrise Production Sharing Contract under conditions equivalent to those in Production Sharing Contracts JPDA 03-19 and JPDA 03-20, and to the legal rights held under Retention Leases NT/RL2 and NT/RL4 in accordance with Article 22 of the Timor Sea Treaty and Article 27 of the International Unitisation Agreement.

### **Article 5: Regulatory Bodies**

The Parties hereby establish a two-tiered regulatory structure for the regulation and administration of the Greater Sunrise Special Regime, consisting of a Designated Authority and a Governance Board.

## Article 6: Designated Authority

1. The Designated Authority shall be responsible for carrying out the day-to-day regulation and management of Petroleum Activities in the Special Regime Area. In doing so, the Designated Authority acts on behalf of Timor-Leste and Australia and reports to the Governance Board.
2. The Designated Authority shall:
  - (a) be the Timor-Leste statutory authority as determined by the member of the Government of Timor-Leste responsible for the petroleum sector to act as the Designated Authority;
  - (b) regulate the Special Regime Area according to Good Oilfield Practice;
  - (c) be financed from fees collected under the applicable Petroleum Mining Code and the Greater Sunrise Production Sharing Contract; and
  - (d) subject to Articles 7 and 8 of this Annex, exercise its powers and functions, as set out in this Article, without interference by any other entity and in accordance with this Treaty.
3. The Designated Authority shall have the following powers and functions:
  - (a) day-to-day regulation and management of Petroleum Activities in the Special Regime Area in accordance with this Treaty and its functions as outlined in the applicable Petroleum Mining Code and any regulations thereunder, except with respect to Strategic Issues;
  - (b) three times a year, meeting with and reporting to the Governance Board on:
    - (i) the exercise of its powers and functions, in accordance with the applicable regulatory framework;
    - (ii) progress on the preparation of the Development Plan and, once approved, progress against the Development Plan and schedule;
    - (iii) production and revenue data from the Greater Sunrise Fields;
    - (iv) updates on issues referred to the Dispute Resolution Committee, if any;
    - (v) the Greater Sunrise Contractor's compliance with regulatory standards, including its local content obligations as set out in this Treaty, the Development Plan and the Greater Sunrise Production Sharing Contract; and
    - (vi) safety, environmental and well-integrity management;
  - (c) pursuant to Article 9 of this Annex, powers and functions with respect to the Development Plan;
  - (d) entering into the Greater Sunrise Production Sharing Contract, subject to the approval of the Governance Board, in accordance with Articles 4 and 7(3)(b) of this Annex;
  - (e) supervising, managing and agreeing on non-material amendments to the Greater Sunrise Production Sharing Contract;
  - (f) agreeing material amendments to the Greater Sunrise Production Sharing Contract as defined in that Contract or terminating the Greater Sunrise Production Sharing Contract, subject to approval of the Governance Board in accordance with Article 7(3)(b) of this Annex;

- (g) approving assignments, production plans, lifting agreements and other technical documents and agreements relating to the Greater Sunrise Production Sharing Contract;
- (h) reporting annual income and expenditure, as these relate to the Special Regime Area, to the Governance Board;
- (i) accessing, consolidating and disseminating, on an annual basis, all information pertaining to the Greater Sunrise Fields' reserves based on information provided by the Greater Sunrise Contractor or as otherwise audited by the Designated Authority;
- (j) collecting revenues received from Petroleum Activities and Special Regime Installations prior to the Valuation Point on behalf of both Parties and distribution thereof;
- (k) auditing and inspecting the Greater Sunrise Contractor's books and accounts;
- (l) inspecting Special Regime Installations in the Special Regime Area;
- (m) ensuring compliance by the Greater Sunrise Contractor with its local content obligations in accordance with this Treaty, the Development Plan and the Greater Sunrise Production Sharing Contract, including by giving directions and instructions as necessary;
- (n) issuing regulations to protect the marine environment in the Special Regime Area and monitoring compliance with them, ensuring there is a contingency plan for combatting pollution from Petroleum Activities in the Special Regime Area, and investigating safety and environmental incidents in the Special Regime Area;
- (o) issuing regulations and developing and adopting standards and procedures on occupational health and safety for persons employed on Special Regime Installations that are no less effective than those standards and procedures that would apply to persons employed on similar structures in Timor-Leste and Australia;
- (p) requesting assistance from the appropriate authorities for search and rescue operations, security threats, air traffic services, anti-pollution prevention measures, and safety and environmental incidents, or the activation of emergency procedures, in accordance with international law;
- (q) establishing safety zones to ensure the safety of navigation and Special Regime Installations, in accordance with the Convention;
- (r) controlling movements into, within and out of the Special Regime Area of vessels, aircraft, structures, and other equipment employed in exploration for and exploitation of the Greater Sunrise Fields, consistent with Articles 17, 18 and 19 of this Annex;
- (s) pursuant to Article 21 of this Annex, powers and functions with respect to the decommissioning plan, including entry into and oversight of financial arrangements for the decommissioning plan;
- (t) oversight of the abandonment and decommissioning phase of the Greater Sunrise Fields;
- (u) authorising the construction, operation and use of Special Regime Installations, subject to the provisions in this Annex; and
- (v) any other powers or functions in respect of the Special Regime Area, including regulatory powers, conferred upon it by the Governance Board.

4. The Designated Authority shall refer all Strategic Issues as defined in Article 7(3) of this Annex to the Governance Board and, in the event of a dispute between the Designated Authority and the Greater Sunrise Contractor as to whether an issue is a Strategic Issue, either the Designated Authority or the Greater Sunrise Contractor may refer that issue to the Governance Board.
5. Within 14 days of a Strategic Issue being referred to the Governance Board, the Designated Authority and the Greater Sunrise Contractor may provide any relevant information concerning the issue and the Designated Authority may provide any recommendations on the issue.

#### **Article 7: Governance Board**

1. The Governance Board shall be comprised of two representatives appointed by Timor-Leste and one representative appointed by Australia. The representatives on the Governance Board shall not have any direct financial or other commercial interest in the operation of the Greater Sunrise Special Regime that would create any reasonable perception of, or actual, conflict of interest, and they shall disclose details of any material personal interest in connection with their position on the Governance Board.
2. The Governance Board shall have the following powers and functions:
  - (a) providing strategic oversight over the Greater Sunrise Special Regime;
  - (b) establishing and overseeing an assurance and audit framework for revenue verification and offshore petroleum regulation and administration. This shall include:
    - (i) issuing an annual 'Statement of Expectation' to frame the operation and management of the Greater Sunrise Special Regime to guide the work of the Designated Authority;
    - (ii) reporting requirements of the Designated Authority in accordance with Article 6(3)(b) of this Annex; and
    - (iii) engaging an independent qualified firm to conduct an annual audit in accordance with international auditing standards so as to provide a high level of assurance over the completeness and accuracy of revenues payable from Petroleum Activities in the Special Regime Area including monthly reporting, incorporating an explanation for variances between forecast and actual revenue;
  - (c) making decisions on Strategic Issues referred to it under Article 6(4) of this Annex, in accordance with paragraphs 5 and 6 of this Article;
  - (d) approving amendments to the Interim Petroleum Mining Code and any regulations thereunder;
  - (e) approving the final Petroleum Mining Code and any regulations thereunder, and any amendments thereto;
  - (f) other than as necessary for Strategic Issues, meet three times a year with the Designated Authority and receive reports under Article 6(3)(b) of this Annex; and
  - (g) conferring any additional powers and functions on the Designated Authority.
3. Subject to paragraph 4 of this Article, the following is an exhaustive list of Strategic Issues:

- (a) assessment and approval of a Development Plan pursuant to Article 9(2) of this Annex and any material change to a Development Plan as defined in that Development Plan, pursuant to Article 9(4) of this Annex;
  - (b) approval of the decision by the Designated Authority to enter into or terminate the Greater Sunrise Production Sharing Contract, or propose any material changes to that Contract as defined in that Contract;
  - (c) approval of, and any material change to, a decommissioning plan, in accordance with Article 21 of this Annex; and
  - (d) approval of the construction and operation of a Pipeline.
4. The Governance Board may add additional Strategic Issues to those listed in paragraph 3 of this Article.
  5. In making a decision on a Strategic Issue, the Governance Board shall give due consideration to all recommendations and relevant information provided by the Designated Authority and relevant information provided by the Greater Sunrise Contractor.
  6. All decisions of the Governance Board shall be made by Consensus, within 30 days or such other period as may be agreed with both the Designated Authority and the Greater Sunrise Contractor, and be final and binding on the Designated Authority and the Greater Sunrise Contractor. For the purposes of this Treaty "Consensus" means the absence of formal objection to a proposed decision.
  7. If the Governance Board has exhausted every effort to reach Consensus on a Strategic Issue, either the Designated Authority or the Greater Sunrise Contractor may refer that issue to the Dispute Resolution Committee for resolution. Nothing in this paragraph limits the Governance Board's own right to refer any Strategic Issue to the Dispute Resolution Committee.

#### **Article 8: Dispute Resolution Committee**

1. The Dispute Resolution Committee shall:
  - (a) be an independent body with a mandate to hear any matters referred to it under Article 7(7) or Article 9(2) of this Annex or any matters as otherwise agreed by the Designated Authority and the Greater Sunrise Contractor;
  - (b) be comprised of:
    - (i) one member appointed from each of the Parties (**Party Appointees**); and
    - (ii) a third independent member, who will act as Chair, to be selected by the Party Appointees when a matter is referred to the Dispute Resolution Committee from a list of approved experts selected and maintained by Timor-Leste and Australia and refreshed every three years, and in case of disagreement, by the Secretary-General of the Permanent Court of Arbitration;
  - (c) establish its own procedures;
  - (d) make all decisions in writing and by Consensus, or where Consensus cannot be reached, by simple majority, within 60 days or as otherwise agreed with the referring party or parties;
  - (e) in making any decision, provide a reasonable opportunity for the Designated Authority and the Greater Sunrise Contractor to submit any relevant information and give due consideration to any information so provided; and

- (f) have the power to request any information from the Designated Authority and/or the Greater Sunrise Contractor which it considers reasonably necessary to make its decision.
2. Members of the Dispute Resolution Committee shall not have any direct financial or other commercial interest in the operation of the Greater Sunrise Special Regime that would create any reasonable perception of, or actual, conflict of interest, and they shall disclose details of any material personal interest in connection with their position on the Dispute Resolution Committee. Serving members of the Governance Board shall not be members of the Dispute Resolution Committee.
3. All decisions of the Dispute Resolution Committee shall be final and binding on the Designated Authority and the Greater Sunrise Contractor.

#### **Article 9: Development Plan for the Greater Sunrise Fields**

1. Production of Petroleum from the Greater Sunrise Fields shall not commence until a Development Plan, which has been submitted by the Greater Sunrise Contractor in accordance with the Greater Sunrise Production Sharing Contract and the process provided for in this Article, has been approved in accordance with this Article.
2. The process of assessing and approving a Development Plan for the Greater Sunrise Fields is as follows:
  - (a) the Development Plan shall be assessed against the criteria listed at paragraph 3 of this Article (**Development Plan Criteria**);
  - (b) the Greater Sunrise Contractor shall submit the Development Plan to both the Governance Board and the Designated Authority;
  - (c) the Designated Authority shall consider the Development Plan and shall provide its recommendations to the Governance Board as to whether it should be approved or rejected within 180 days of receipt, if practicable. During this period, the Designated Authority may exchange views and information with the Greater Sunrise Contractor regarding the Development Plan. Any amendments agreed between the Designated Authority and the Greater Sunrise Contractor may be included in the Development Plan prior to the Designated Authority's recommendation to the Governance Board;
  - (d) the Governance Board shall consider the Development Plan, the Designated Authority's recommendation and any other information submitted by the Designated Authority;
  - (e) if the Governance Board considers that the Development Plan is both in accordance with the approved Development Concept and meets the Development Plan Criteria, the Governance Board shall approve the Development Plan within 180 days of receipt, if practicable;
  - (f) if the Governance Board does not approve the Development Plan under paragraph 2(e) of this Article, the Development Plan is rejected and the Governance Board shall specify its reasons for not approving it to the Greater Sunrise Contractor and Designated Authority. Any of these parties may, at their discretion, refer the matter to the Dispute Resolution Committee within 15 days of the Governance Board's decision;
  - (g) the Dispute Resolution Committee shall review the Development Plan, the Designated Authority's recommendation and any other information submitted pursuant to this Article. The Dispute Resolution Committee shall determine whether the Development Plan meets the Development Plan Criteria within 90 days of referral of the matter, or such other period as may be agreed with the Greater Sunrise Contractor;

- (h) if the Dispute Resolution Committee determines that the Development Plan is in accordance with the approved Development Concept and meets the Development Plan Criteria, the Dispute Resolution Committee shall approve the Development Plan;
  - (i) if the Dispute Resolution Committee determines that the Development Plan either is not in accordance with the approved Development Concept, or does not meet the Development Plan Criteria, the Dispute Resolution Committee shall reject the Development Plan, specifying its reasons for doing so; and
  - (j) the Parties shall be bound by, and give effect to, the decision of the Governance Board or, if applicable, the Dispute Resolution Committee pursuant to this Article.
3. The criteria that shall apply to the assessment of any Development Plan under paragraph 2 of this Article are as follows:
- (a) the Development Plan supports the development policy, objectives and needs of each of the Parties, while at the same time providing a fair return to the Greater Sunrise Contractor;
  - (b) the project is commercially viable;
  - (c) the Greater Sunrise Contractor is seeking to exploit the Greater Sunrise Fields to the best commercial advantage;
  - (d) the project is technically feasible;
  - (e) the Greater Sunrise Contractor has, or has access to, the financial and technical competence to carry out the development of the Greater Sunrise Fields;
  - (f) the Development Plan is consistent with Good Oilfield Practice and, in particular, documents the Greater Sunrise Contractor's quality, health, safety and environmental strategies;
  - (g) the Development Plan demonstrates clear, measurable and enforceable commitments to local content through a local content plan, in accordance with Article 14 of this Annex;
  - (h) the Greater Sunrise Contractor could reasonably be expected to carry out the Development Plan during the specified period;
  - (i) the Greater Sunrise Contractor has, as applicable, entered into binding, arms-length arrangements for the sale and/or processing of gas, including liquefied natural gas, from the Greater Sunrise Fields or has provided sufficient details of any such processing and/or sale agreements to be entered into by affiliates of the Greater Sunrise Contractor or other companies; and
  - (j) the Greater Sunrise Contractor has provided summaries of, or where applicable, the project execution plan and the petroleum production plan, including relevant engineering and cost specifications, in accordance with the applicable regulatory framework and Good Oilfield Practice.
4. The Greater Sunrise Contractor may at any time submit, and if at any time the Designated Authority so decides may be required to submit, proposals to bring up to date or otherwise amend a Development Plan. All amendments of, or additions to, any Development Plan require prior approval of the Designated Authority, which in turn requires the approval of the Governance Board.



5. The Designated Authority shall require the Greater Sunrise Contractor not to change the status or function of any Special Regime Installation in any way except in accordance with an amendment to a Development Plan in accordance with paragraph 4 of this Article.

#### **Article 10: Pipeline**

1. A Pipeline which commences within the Special Regime Area and lands in the territory of Timor-Leste shall be under the exclusive jurisdiction of Timor-Leste. A Pipeline which commences within the Special Regime Area and lands in the territory of Australia shall be under the exclusive jurisdiction of Australia. The Party exercising exclusive jurisdiction has both rights and responsibilities in relation to the Pipeline.
2. The Party exercising exclusive jurisdiction under paragraph 1 of this Article shall cooperate with the Designated Authority in relation to the Pipeline to ensure the effective management and regulation of the Special Regime Area.
3. There shall be open access to the Pipeline. The open access arrangements shall be in accordance with good international regulatory practice. If Timor-Leste has exclusive jurisdiction over the Pipeline, it shall consult with Australia over access to the Pipeline. If Australia has exclusive jurisdiction over the pipeline, it shall consult with Timor-Leste over access to the Pipeline.

#### **Article 11: Petroleum Mining Code**

1. The Interim Petroleum Mining Code, including the interim regulations, as in force at the date of entry into force of this Treaty shall govern the development and exploitation of Petroleum from within the Greater Sunrise Fields, as well as the export of such Petroleum until such a time as a final Petroleum Mining Code is approved by the Governance Board.
2. The Governance Board shall coordinate with the Designated Authority, and shall endeavour to approve and issue a final Petroleum Mining Code within six months of the entry into force of this Treaty or, if such a date is not achieved, as soon as possible thereafter.

#### **Article 12: Audit and Information Rights**

1. For the purposes of transparency, the Greater Sunrise Contractor shall include in its agreements with the operators of the downstream facilities the necessary provisions to ensure that the Designated Authority has audit and information rights from the operators of downstream facilities, and from their respective affiliates, equivalent to those audit and information rights the Designated Authority has in respect to the Greater Sunrise Production Sharing Contract. In the event of a request by the Designated Authority, the Greater Sunrise Contractor shall consult with the operators of the downstream facilities with a view to providing access to metering facilities.
2. The rights mentioned in paragraph 1 of this Article are granted to ensure that the Designated Authority is able to verify the volume and value of natural gas.

### **Article 13: Applicable Law**

Petroleum Activities in the Special Regime Area shall be governed by this Annex, the applicable Petroleum Mining Code and any regulations issued thereunder.

### **Article 14: Local Content**

1. The Greater Sunrise Contractor shall set out its local content commitments during the development, operation and decommissioning of the Greater Sunrise Fields through a local content plan to be included as part of the Development Plan and the decommissioning plan.
2. The local content plan shall contain clear, measurable, binding and enforceable local content commitments, including to:
  - (a) improve Timor-Leste's workforce and skills development and promote employment opportunities and career progression for Timor-Leste nationals through capacity-building initiatives, training of Timor-Leste nationals and a preference for the employment of Timor-Leste nationals;
  - (b) improve Timor-Leste's supplier and capability development by seeking the procurement of goods and services (including engineering, fabrication and maintenance services) from Timor-Leste in the first instance; and
  - (c) improve and promote Timor-Leste's commercial and industrial capacity through the transfer of knowledge, technology and research capability.
3. The Greater Sunrise Contractor shall ensure that any subcontracts entered into for the supply of goods and services for the Special Regime Area give effect to its local content commitments.
4. Failure by the Greater Sunrise Contractor to meet its local content commitments shall be deemed as non-compliance and subject to the mechanisms and penalties referred to in the local content plan as agreed between the Designated Authority and the Greater Sunrise Contractor.
5. The Parties shall consult with a view to ensuring that the exercise of jurisdiction by either Party under Articles 17, 18 and 19 does not hinder the implementation of local content commitments referred to in this Article.

### **Article 15: Cooperation and Coordination**

In the Special Regime Area, each Party shall, as appropriate, cooperate and coordinate with, and assist, the other Party, including in relation to:

- (a) search and rescue operations with respect to Special Regime Installations; and
- (b) surveillance activities with respect to Special Regime Installations.

### **Article 16: Exercise of Jurisdiction**

1. In exercising jointly their rights as coastal States pursuant to Article 77 of the Convention, Timor-Leste and Australia exercise jurisdiction in accordance with the Convention with respect to:
  - (a) customs and migration pursuant to Article 17 of this Annex;

- (b) quarantine pursuant to Article 18 of this Annex;
  - (c) environmental protection, management and regulation;
  - (d) marine scientific research;
  - (e) air traffic services related to Special Regime Installations;
  - (f) security and establishment of safety zones around Special Regime Installations;
  - (g) health and safety;
  - (h) management of living resources; and
  - (i) criminal jurisdiction pursuant to Article 20 of this Annex.
2. The Parties agree to consult as necessary on the cooperative exercise of the jurisdictional competencies set out in paragraph 1 of this Article.
  3. The Parties have agreed to delegate the exercise of certain jurisdictional and regulatory competencies to the Designated Authority, as specified in this Treaty.

#### **Article 17: Customs and Migration**

1. The Parties may apply their customs and migration laws to persons, equipment and goods entering their territory from, or leaving their territory for, the Special Regime Area and adopt arrangements to facilitate entry and departure.
2. Limited liability corporations or other limited liability entities shall ensure, unless otherwise authorised by Timor-Leste or Australia, that persons, equipment and goods do not enter Special Regime Installations without first entering Timor-Leste or Australia, and that their employees and the employees of their subcontractors are authorised by the Designated Authority to enter the Special Regime Area.
3. Timor-Leste and Australia may apply customs and migration controls to persons, equipment and goods entering the Special Regime Area without the authority of either country and may adopt arrangements to co-ordinate the exercise of such rights.
4. Goods and equipment shall not be subject to customs duties where they are:
  - (a) entering the Special Regime Area for purposes related to Petroleum Activities; or
  - (b) leaving or in transit through either Timor-Leste or Australia for the purpose of entering the Special Regime Area for purposes related to Petroleum Activities.
5. Goods and equipment leaving the Special Regime Area for the purpose of being permanently transferred to either Timor-Leste or Australia may be subject to customs duties of that country.

#### **Article 18: Quarantine**

1. The Parties may apply their quarantine laws to persons, equipment and goods entering their territory from, or leaving their territory for, the Special Regime Area and adopt arrangements to facilitate entry and departure.

2. The Parties shall consult with a view to reaching agreement with each other before entering into a commercial arrangement with the Greater Sunrise Contractor with respect to quarantine.

#### **Article 19: Vessels**

1. Vessels of the nationality of Timor-Leste or Australia engaged in Petroleum Activities in the Special Regime Area shall be subject to the law of their nationality in relation to safety and operating standards and crewing regulations.
2. Vessels with the nationality of other countries engaged in Petroleum Activities in the Special Regime Area shall, in relation to safety and operating standards and crewing regulations, apply:
  - (a) the laws of Australia, if the vessels are operating from an Australian port; or
  - (b) the laws of Timor-Leste, if the vessels are operating from a Timor-Leste port.
3. Such vessels engaged in Petroleum Activities in the Special Regime Area that do not operate out of either Timor-Leste or Australia shall under the law of both Timor-Leste and Australia be subject to the relevant international safety and operating standards.
4. The Parties shall, promptly upon the entry into force of this Treaty and consistent with their laws, consult with a view to reaching the agreement required for swift recognition of any international seafarer certifications issued by the other Party, so as to allow their national seafarers to have access to employment opportunities aboard vessels operating in the Special Regime Area.

#### **Article 20: Criminal Jurisdiction**

1. A national or permanent resident of Timor-Leste or Australia shall be subject to the criminal law of that country in respect of acts or omissions occurring in the Special Regime Area connected with or arising out of Petroleum Activities, provided that a permanent resident of Timor-Leste or Australia who is a national of the other country shall be subject to the criminal law of that country.
2. Subject to paragraph 4 of this Article, a national of a third State, not being a national or permanent resident of either Timor-Leste or Australia, shall be subject to the criminal law of both Timor-Leste and Australia in respect of acts or omissions occurring in the Special Regime Area connected with or arising out of Petroleum Activities. Such a person shall not be subject to criminal proceedings under the law of either Timor-Leste or Australia if he or she has already been tried and discharged or acquitted by a competent tribunal or already undergone punishment for the same act or omission under the law of the other country or where the competent authorities of one country, in accordance with its law, have decided in the public interest to refrain from prosecuting the person for that act or omission.
3. In cases referred to in paragraph 2 of this Article, Timor-Leste and Australia shall, as and when necessary, consult each other to determine which criminal law is to be applied, taking into account the nationality of the victim and the interests of the country most affected by the alleged offence.
4. The criminal law of the flag State shall apply in relation to acts or omissions on board vessels, including seismic or drill vessels in, or aircraft in flight over, the Special Regime Area.
5. Timor-Leste and Australia shall provide assistance to and co-operate with each other, including through agreements or arrangements as appropriate, for the purposes of enforcement of criminal law under this Article, including the obtaining of evidence and information.

6. Both Timor-Leste and Australia recognise the interest of the other country where a victim of an alleged offence is a national of that other country and shall keep that other country informed to the extent permitted by its law, of action being taken with regard to the alleged offence.
7. Timor-Leste and Australia may make arrangements permitting officials of one country to assist in the enforcement of the criminal law of the other country. Where such assistance involves the detention of a person who under paragraph 1 of this Article is subject to the jurisdiction of the other country that detention may only continue until it is practicable to hand the person over to the relevant officials of that other country.

#### **Article 21: Decommissioning**

1. The Greater Sunrise Contractor shall submit to the Designated Authority a preliminary decommissioning plan and, in so far as possible, preliminary decommissioning cost estimate as part of the Development Plan.
2. As soon as practicable, but in any case no later than seven years after commencement of production of Petroleum in the Special Regime Area, the Greater Sunrise Contractor shall be required to submit to the Designated Authority a decommissioning plan and total estimate of decommissioning costs for approval in accordance with Articles 6(3)(s) and 7(3)(c) of this Annex, which shall be updated in accordance with the Development Plan and the applicable Petroleum Mining Code.
3. The Designated Authority and the Greater Sunrise Contractor shall enter into an agreement on the holding of decommissioning cost reserves to meet the costs of fulfilling decommissioning obligations. This agreement shall be incorporated into the Greater Sunrise Production Sharing Contract. Any reserves remaining after decommissioning shall be divided between the Parties in the same ratio as their upstream revenue share pursuant to Article 2 of this Annex.
4. Following Commercial Depletion of the Greater Sunrise Fields, the Parties shall consult with a view to reaching agreement on arrangements as necessary with regard to access and monitoring of any remaining structures, including partially remaining structures, for the purposes of environmental protection and compliance with either Party's domestic laws or regulations.

#### **Article 22: Special Regime Installations**

1. The Greater Sunrise Contractor shall inform the Designated Authority of the exact position of every Special Regime Installation.
2. For the purposes of exploiting the Greater Sunrise Fields and subject to Articles 17 and 18 of this Annex and to the requirements of safety, neither Government shall hinder the free movement of personnel and materials between Special Regime Installations and landing facilities on those structures shall be freely available to vessels and aircraft of Timor-Leste and Australia.

#### **Article 23: Duration of the Greater Sunrise Special Regime**

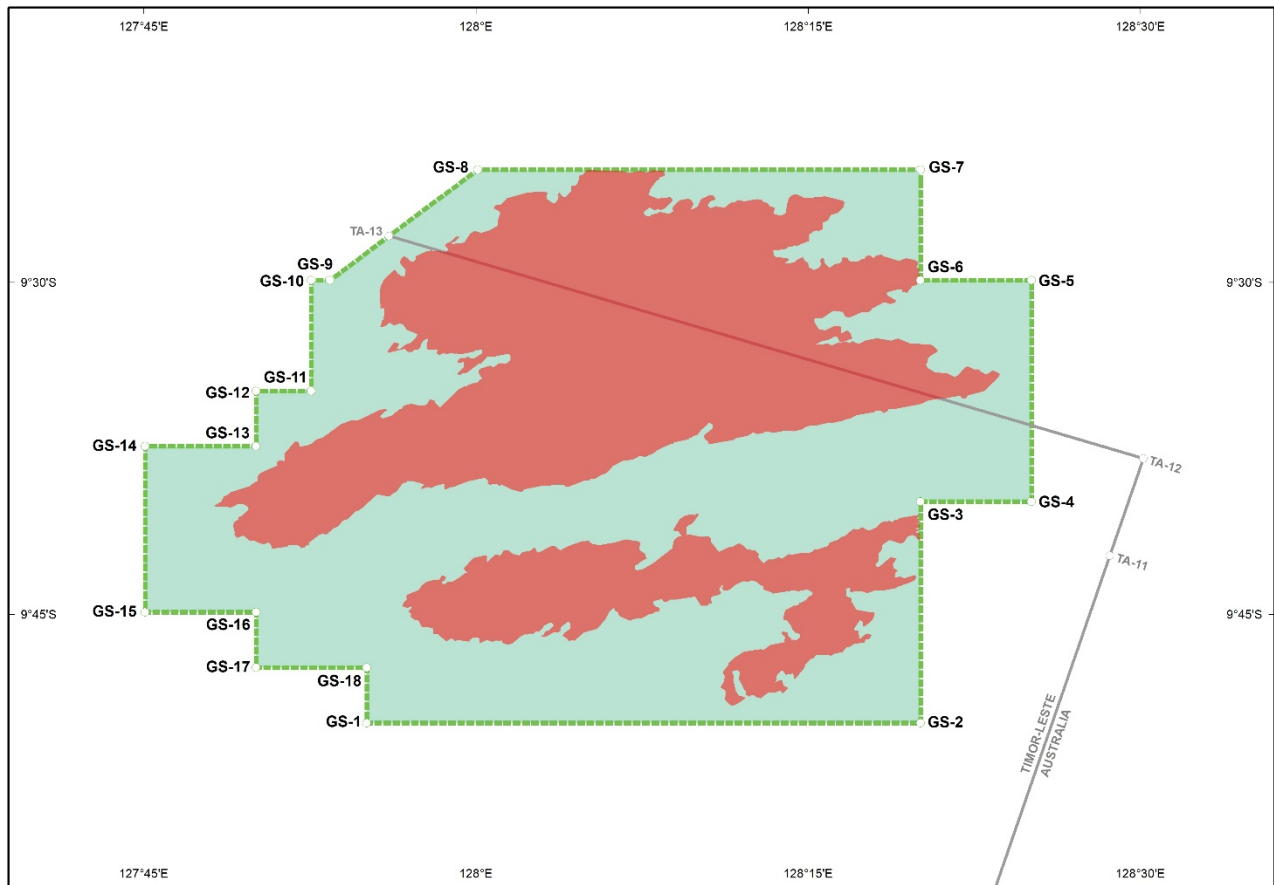
1. The Greater Sunrise Special Regime shall cease to be in force following the Commercial Depletion of the Greater Sunrise Fields.
2. The Parties shall confirm their common understanding that the Greater Sunrise Fields have been commercially depleted and that the Greater Sunrise Special Regime has ceased to be in force by an exchange of notes through diplomatic channels.

## ANNEX C: Special Regime Area

- The Special Regime Area consists of the area of the continental shelf contained within the rhumb lines connecting the following points:

Point	Latitude	Longitude
GS-1	09° 49' 54.88"S	127° 55' 04.35"E
GS-2	09° 49' 54.88"S	128° 20' 04.34"E
GS-3	09° 39' 54.88"S	128° 20' 04.34"E
GS-4	09° 39' 54.88"S	128° 25' 04.34"E
GS-5	09° 29' 54.88"S	128° 25' 04.34"E
GS-6	09° 29' 54.88"S	128° 20' 04.34"E
GS-7	09° 24' 54.88"S	128° 20' 04.34"E
GS-8	09° 24' 54.88"S	128° 00' 04.34"E
GS-9	09° 29' 54.88"S	127° 53' 24.35"E
GS-10	09° 29' 54.88"S	127° 52' 34.35"E
GS-11	09° 34' 54.88"S	127° 52' 34.35"E
GS-12	09° 34' 54.88"S	127° 50' 04.35"E
GS-13	09° 37' 24.88"S	127° 50' 04.35"E
GS-14	09° 37' 24.89"S	127° 45' 04.35"E
GS-15	09° 44' 54.88"S	127° 45' 04.35"E
GS-16	09° 44' 54.88"S	127° 50' 04.35"E
GS-17	09° 47' 24.88"S	127° 50' 04.35"E
GS-18	09° 47' 24.88"S	127° 55' 04.35"E

- The following is a depiction of the outline of the Special Regime Area and the Greater Sunrise Fields for illustrative purposes only:



## **ANNEX D: Transitional Provisions**

### **Article 1: Obligations under Previous Agreements**

1. Pursuant to the terms of Article 22 of the Timor Sea Treaty and Article 27 of the International Unitisation Agreement, the Parties agree that any Petroleum Activities entered into under the terms of the Timor Sea Treaty or the International Unitisation Agreement shall continue under conditions or terms equivalent to those in place under those agreements as applicable.
2. Paragraph 1 of this Article shall apply to those Petroleum Activities undertaken or still to be undertaken pursuant to the terms of the following Production Sharing Contracts and/or licences:
  - (a) Production Sharing Contract JPDA 03-12;
  - (b) Production Sharing Contract JPDA 03-13;
  - (c) Production Sharing Contract JPDA 03-19;
  - (d) Production Sharing Contract JPDA 03-20;
  - (e) Production Sharing Contract JPDA 06-105;
  - (f) Production Sharing Contract JPDA 11-106;
  - (g) Retention Lease NT/RL2; and
  - (h) Retention Lease NT/RL4.
3. From the date of entry into force of this Treaty, the Parties agree that Timor-Leste shall receive all future upstream revenue derived from Petroleum Activities from the Bayu-Undan Gas Field and Kitan Oil Field.

### **Article 2: Arrangements for Existing Joint Petroleum Development Area Activities**

1. The transitional arrangements for the Bayu-Undan Gas Field and the Kitan Oil Field are implemented in accordance with the Exchange of Correspondence on Bayu-Undan and Kitan Transitional Arrangements.
2. The Parties agree to maintain the fiscal regime relating to both the upstream and downstream components for the exploitation of the Bayu-Undan Gas Field, as applicable at the time this Treaty enters into force.
3. Goods and equipment leaving Timor-Leste or Australia for purposes related to Petroleum Activities relating to the Bayu-Undan Gas Field or the Kitan Oil Field shall not be subject to customs duties.
4. Nothing in this Treaty shall affect the ongoing application of commercial agreements entered into by the contractor for the Bayu-Undan Gas Field relating to the sale, transportation and/or processing of Petroleum from the Bayu-Undan Gas Field.
5. The relevant Timor-Leste statutory authority shall provide information to the Governance Board established under Article 7 of Annex B of this Treaty on an annual basis regarding the operation and decommissioning of the Bayu-Undan Gas Field and the decommissioning of the Kitan Oil Field. Such information shall include an update on progress against the relevant development plan, progress against the relevant decommissioning plan and information on any safety or environmental issues.

6. The Parties shall agree on arrangements for cooperation between their relevant regulatory authorities for the safe and efficient regulation of the Bayu-Undan Gas Field having regard to the integrated nature of the upstream and downstream component of that field.
7. The Parties shall agree on arrangements for cooperation between their relevant regulatory authorities for the purposes of the safe and efficient decommissioning of the Bayu-Undan Gas Field, including the Bayu-Undan Pipeline, consistent with terms of the Bayu-Undan Gas Field and Bayu-Undan Pipeline decommissioning plans.

### **Article 3: Bayu-Undan Pipeline**

1. The Parties agree that Australia shall exercise exclusive jurisdiction over the Bayu-Undan Pipeline, including for the purposes of taxation. Australia has both rights and responsibilities in relation to the Bayu-Undan Pipeline.
2. The fiscal regime applicable to the Bayu-Undan Pipeline at the time this Treaty enters into force shall apply until the commencement of decommissioning in accordance with the Bayu-Undan Pipeline decommissioning plan.
3. In exercising its exclusive jurisdiction in accordance with paragraph 1, Australia shall cooperate with the relevant Timor-Leste statutory authority in relation to the Bayu-Undan Pipeline.

### **Article 4: Arrangements for other Existing Activities outside Joint Petroleum Development Area**

1. The Parties recognise that pursuant to Articles 2 and 3 of this Treaty, the Buffalo Oil Field will be situated on the continental shelf of Timor-Leste.
2. The Parties agree that for the portion of Australian exploration permit WA-523-P, including the Buffalo Oil Field, which previously fell within the continental shelf of Australia and which now falls within the continental shelf of Timor-Leste pursuant to Article 2 of this Treaty, the security of title and any other rights held by the titleholder shall be preserved through conditions equivalent to those in place under Australian domestic law and as determined by agreement between the Parties and the titleholder.
3. Pursuant to paragraph 2 of this Article, Timor-Leste agrees that it will enter into a Production Sharing Contract with the titleholder to replace the Australian exploration permit WA-523-P in respect of that portion.
4. Timor-Leste shall indemnify Australia in respect of liability arising from an act or omission which contravenes its obligations under paragraphs 2 or 3 of this Article.
5. Upon entry into a Production Sharing Contract in accordance with paragraph 3 of this Article, the Parties affirm that Timor-Leste will not assume any liability arising out of, or in relation to, Australia's exercise of jurisdiction over the Buffalo Oil Field prior to entry into the Production Sharing Contract.



**Article 1: Institution of Proceedings**

Pursuant to Article 12 of this Treaty, either Party may submit the dispute to the arbitral procedure provided for in this Annex by written notification addressed to the other Party. The notification shall be accompanied by a statement of the claim and the grounds on which it is based.

**Article 2: Constitution of Arbitral Tribunal**

The arbitral tribunal shall, unless the Parties agree otherwise, be constituted as follows:

- (a) it shall consist of three members;
- (b) the Party instituting the proceedings shall appoint one member. The appointment shall be included in the notification of arbitration under Article 1 of this Annex;
- (c) the other Party shall, within 30 days of receipt of the notification of arbitration, appoint one member;
- (d) the Parties shall, within 60 days of the appointment of the second arbitrator, appoint the third member who shall act as President of the tribunal;
- (e) if an appointment is not made within the time limits provided for in paragraphs (c) and (d) of this Article, either Party may request the Secretary-General of the Permanent Court of Arbitration to make the necessary appointment. If the Secretary-General is a national of either Timor-Leste or Australia or is otherwise prevented from discharging this function, the role of the appointing authority shall be carried out by the Deputy Secretary-General or by the official of the International Bureau of the Permanent Court of Arbitration next in seniority who is not a national of either Timor-Leste or Australia; and
- (f) any vacancy shall be filled in the manner prescribed for the initial appointment.

**Article 3: Registry**

Unless the Parties otherwise agree, the International Bureau of the Permanent Court of Arbitration shall act as registry to administer the arbitral proceedings.

**Article 4: Procedure**

1. The arbitral tribunal shall decide all questions in relation to its competence.
2. Unless the Parties otherwise agree, the arbitral tribunal shall determine its own procedure, assuring to each Party a full opportunity to be heard and to present its case.

#### **Article 5: Duties of the Parties**

The Parties shall facilitate the work of the arbitral tribunal and, in particular, in accordance with their law and using all means at their disposal, shall:

- (a) provide it with all relevant documents, facilities and information; and
- (b) enable it when necessary to call witnesses or experts and receive their evidence and to visit the localities to which the case relates.

#### **Article 6: Expenses**

Unless the arbitral tribunal decides otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of its members, shall be borne by the Parties in equal shares.

#### **Article 7: Required Majority for Decisions**

Decisions of the arbitral tribunal shall be taken by a majority vote of its members. The absence or abstention of one member shall not constitute a bar to the tribunal reaching a decision. In the event of an equality of votes, the President of the tribunal shall have a casting vote.

#### **Article 8: Default of Appearance**

If one of the Parties does not appear before the arbitral tribunal or fails to defend its case, the other Party may request the arbitral tribunal to continue the proceedings and to make its award. Absence of a Party or failure of a Party to defend its case shall not constitute a bar to the proceedings. Before making its award, the arbitral tribunal must satisfy itself not only that it has jurisdiction over the dispute but also that the claim is well founded in fact and law.

#### **Article 9: Award**

The award of the arbitral tribunal shall be confined to the subject-matter of the dispute and state the reasons on which it is based. It shall contain the names of the members who have participated and the date of the award. Any member of the tribunal may attach a separate or dissenting opinion to the award.

#### **Article 10: Finality of Award**

The award shall be final and without appeal. It shall be complied with by the Parties.

#### **Article 11: Applicable Law**

The arbitral tribunal shall reach its award in accordance with the terms of this Treaty and relevant international law.

**COMMISSION PAPER**  
**ON THE COMPARATIVE DEVELOPMENT BENEFITS OF TIMOR-LNG AND DARWIN-LNG**

The present Paper is intended to set out an objective comparison of the benefits of the development options available for the Greater Sunrise field based on the information available to the Commission as of 22 February 2018.

The Commission recalls that, as part of the 30 August Agreement the governments of Timor-Leste and Australia agreed to criteria for the assessment of proposals for the development concept. In the Commission's view, the differences between the two governments and the Joint Venture in assessing the two concepts relate principally to:

- (a) whether both concepts will “support[] the development objectives and needs of each of Timor-Leste and Australia” and make “a significant contribution to the sustainable economic development of Timor-Leste”; and
- (b) whether both concepts are “commercially viable, including best commercial advantage”.

From the perspective of the sovereign decision of how to develop the resource, however, these criteria are inter-related. Development considerations bear on the benefits that the two governments—and, in particular, Timor-Leste—will derive from the resource. Development benefits, however, can only be realized if an approach to developing the resource is designed that is commercially viable.

The Commission does not wish to make a recommendation to the Parties regarding the development of Greater Sunrise, but considers that the Parties' decision-making would benefit from a neutral comparison of the two concepts in terms of the above metrics. A concise comparison of the two concepts is also set out in the chart included with this Paper as an Annex.

**A. Development Benefits of the Timor-LNG and Darwin-LNG Concepts**

***1. Timor-LNG***

The principal development benefits of a Timor LNG concept would follow from the construction and operation of an LNG plant and associated marine facilities at Beço on the south coast of Timor-Leste. As the Commission understands it, these benefits include the following:

- (a) the return on investment for capital committed to the construction of the LNG plant;
- (b) the economic multiplier effects of oil and gas activity in Timor-Leste;
- (c) the employment of Timorese nationals and the procurement of local materials and supplies during the construction of the plant;
- (d) the employment of Timorese nationals in the operation of the LNG plant, marine facilities, and onshore liquids process facilities with estimated annual operating expenditures of US\$280,000,000;
- (e) savings of at least US\$25,000,000 per year from the reduced cost of power generation as a result of converting Timor-Leste's power stations from diesel to gas;
- (f) the development in Timor-Leste of expertise in LNG operations to facilitate the future development of other gas fields;

- (g) the construction in Timor-Leste of infrastructure, such as the marine facilities and the LNG plant itself, that can facilitate the future development of other gas fields.

The Commission notes that Timor-Leste has repeatedly emphasized that it is more concerned with the development of human capital and long-term economic activity, rather than immediate revenue, and is cognizant of the value of such an approach.

The Commission also notes that, in the event a Timor LNG concept were realized, other elements of the project, such as offshore operations and supply, could well be managed and operated from Timor-Leste, provided that the Joint Venture has agreed to a specific approach to upstream operations. However, the Commission does not consider that such operations can be considered a development benefit of Timor-LNG until the Joint Venture has agreed to a specific approach to upstream operations.

Finally, the Commission notes that a number of consultant reports have endeavoured to quantify the broader economic benefits to Timor-Leste of Timor-LNG or the benefits to Australia of LNG operations in Darwin. The Commission recalls that earlier in these proceedings both governments agreed that such economic effects are difficult to quantify with precision. This continues to be the case.

## ***2. Darwin-LNG with operations from Timor-Leste***

The Commission recalls that the governments of Timor-Leste and Australia have already agreed that the revenue sharing arrangements under the Australia-Timor-Leste Maritime Boundaries Treaty will compensate for the broader economic benefits of processing the gas from Greater Sunrise in either Timor-Leste or Australia by allocating to Timor-Leste an additional 10 percent of the government revenue from the field, in addition to the 70 percent to which Timor-Leste would be entitled under either concept. The Commission estimates that this 10 percent will amount to between US\$3,134,000,000 and US\$3,539,000,000 in additional revenue to Timor-Leste over the life of the project that would be available for infrastructure and industrial development initiatives on the South Coast (and effectively matches the total capital investment that Timor-Leste has estimated for the entirety of the Tasi Mane Project, other than the LNG plant itself).

In addition, development benefits of a Darwin-LNG concept would follow from the conduct of offshore operations and supply for the Greater Sunrise fields from Timor-Leste and from the industrial development options available to Timor-Leste with the additional capital made available under this concept. As the Commission understands it, these benefits would be as follows.

First, given that the Darwin-LNG concept leverages existing infrastructure in Australia, the Joint Venture has committed to:

- (a) locating offshore, management, and support operations for the Greater Sunrise Project in Timor-Leste;
- (b) funding for a domestic gas pipeline to Timor-Leste which could be used for power generation, industrial development, and petrochemicals, for the benefit of the Timorese people.

In conjunction with the above, the Joint Venture has made a number of specific commitments with respect to equity participation by Timor-Leste in the project, employment, and supply sourcing, as well as other local content commitments and support for the development of the petroleum sector in Timor-Leste. The benefits to Timor-Leste would be as follows:

- (a) an offer of 3% free equity and up to 6% additional equity purchased on commercial terms for Timor Gap in the Greater Sunrise Joint Venture and an offer of 0.9% free equity and up to 1.8% additional equity purchased on commercial terms in the Darwin-LNG Joint Venture in order to provide Timor-Leste with a direct interest in all aspects of the project;

- (b) participation by Timor Gap, as a result of its equity share in the Great Sunrise Joint Venture, in the design, construction, management, and operations of the Greater Sunrise Project;
- (c) the employment of Timorese nationals in the offshore, management, and support operations for the Greater Sunrise project, which would be run from Timor-Leste with estimated annual operating expenditures of US\$282,000,000;
- (d) the establishment of a fabrication and manufacturing facility in Timor-Leste with estimated annual revenues of US\$6,000,000, as well as the employment in the facility of Timorese nationals;
- (e) a commitment to maximize Timorese sources of supply to the Greater Sunrise project;
- (f) a commitment to prioritize Timorese training and employment in all aspects of the Greater Sunrise project (including career development opportunities in the Darwin LNG facility);
- (g) a commitment of US\$2,500,000 per year during front end engineering design, US\$10,000,000 per year during the first five years after a final investment decision, and US\$5,000,000 per year for the 10 years thereafter, to be used for:
  - i. a business development centre focussed on enabling Timorese companies to meet the supply needs of the project;
  - ii. technical education in Timor-Leste, either through the establishment of a new institution or through the expansion and support of existing educational institutions in Timor-Leste;
- (h) a commitment of US\$200,000,000 in additional capital investment to enable the construction of a domestic gas pipeline to Timor-Leste, along with a commitment to supply gas to Timor-Leste for domestic power generation and other activities at the gas transfer price for up to 50M cu ft per day;
- (i) a stream of condensate of up to 10% of production at market value;
- (j) savings of at least US\$25,000,000 per year from the reduced cost of power generation as a result of converting Timor-Leste's power stations from diesel to gas;
- (k) a commitment of US\$50,000,000 in additional capital investment to the Suai supply base and marine facilities;
- (l) the development in Timor-Leste of expertise in offshore petroleum operations, management, logistics, and manufacturing to facilitate the future development of other oil and gas fields, including the potential development of a future Timor-LNG facility;
- (m) the construction in Timor-Leste of infrastructure, such as marine facilities and fabrication, that can facilitate the future development of other oil and gas fields, including the potential development of a future Timor-LNG facility;
- (n) the economic multiplier effects across the Timor-Leste economy of the foregoing activity in Timor-Leste;

The Joint Venture has further committed that investment in respect of the above commitments will be exempted from the uplift provisions of the production sharing contracts and that the commitment of US\$50,000,000 to the Suai supply base and marine facilities will be treated as non-cost recoverable. Pursuant to requirements of the Treaty, the Joint Venture's development plan will be required to establish "clear, measurable, binding and enforceable local content commitments" in respect of

employment and the development of the Timorese workforce, procurement and the development of Timorese suppliers, and Timorese commercial and industrial capacity. The Treaty also requires the development plan to include mechanisms to ensure that such commitments are implemented in practice.

In addition to the commitments made by the Joint Venture, the government of Australia has made a commitment of US\$100,000,000 toward the capital investment in relation to the domestic gas pipeline to Timor-Leste. Australia has also offered certain additional commitments to support the development of the Timorese petroleum sector and the use of the south coast of Timor-Leste as a petroleum hub for the Timor Sea and surrounding areas. These benefits include:

- (a) a commitment to facilitate access by Timor-Leste employees, vessels and aircraft, goods and services to the Greater Sunrise Area, the Darwin LNG Plant, and other oilfields in the Timor Sea in order to facilitate the development of Timor-Leste as a regional petroleum hub;
- (b) a commitment to implement a dedicated visa and labour scheme to provide Timor-Leste citizens access to employment in the onshore petroleum sector in the Northern Territory of Australia in order enable the Joint Venture to meet its commitments regarding Timorese training and employment and to build experience and capacity for the future development of a Timor LNG facility; and;
- (c) a commitment to provide US\$4,000,000 in funding for engineering and technical education in Timor-Leste with a particular focus on the development of the Timorese petroleum sector.

Finally, the development benefits of Darwin-LNG should be considered to include the infrastructure and industrial development initiatives that could be undertaken with the investment capital that Timor-Leste would need to commit to the construction of an LNG plant in a Timor-LNG scenario. As set out below, it is estimated that this would involve a direct subsidy of approximately US\$5,600,000,000 that would be available for other development investment if not used for Timor-LNG.

## **B. Certainty of Development Benefits under the Timor-LNG and Darwin-LNG Concepts**

As noted at the outset, the Commission takes no view regarding which concept would offer greater development benefits to either Timor-Leste or Australia. The Commission does, however, consider that the benefits of developing Greater Sunrise will only be realized if the field is in fact developed. This consideration goes to the question of the commercial viability of the project.

In the Commission's engagement with the Joint Venture and the Parties, Timor-Leste has maintained that both Timor-LNG and Darwin-LNG are commercially viable. On the other hand, the Joint Venture have consistently held the view that only Darwin-LNG is commercially viable. Both Timor-Leste and the Joint Venture have provided the Commission with detailed economic models that produce diametrically opposite results. The Commission has not been able to accept either conclusion without independent confirmation and considers that a neutral assessment of both concepts is beneficial to the governments' decision-making.

As set out in detail in the Commission's Condensed Comparative Analysis of Alternative Development Concepts, the Commission considers the following assessment to be reasonable on the basis of neutral economic modelling:

- (a) Timor-Leste and the Joint Venture have analysed a Timor-LNG concept both as an integrated project (*i.e.*, with both upstream and downstream returns combined) and on a tolling basis (*i.e.*, with a fee paid to the downstream plant for LNG processing). A Darwin-LNG concept would only be on a tolling basis.

- (b) As an integrated project, the Commission anticipates that, under currently expected market conditions, Timor-LNG would generate a return in the order of 7.0% on a capital investment of US\$15,621,000,000. This would not be sufficient to meet the industry standard for investment by an international oil company.
- (c) As a tolling project, the upstream concept for Greater Sunrise (as envisaged either by Timor-Leste or the Joint Venture) has a fairly high cost of production and, under currently anticipated market conditions, is limited in the tolling fee that it could pay for LNG processing while remaining economically viable. At a tolling fee of US\$2.00 per MMBtu or lower, the return on the upstream project would fall within industry investment levels. However, should the tolling fee be higher than US\$2.50 per MMBtu, the return on the upstream project would fall below industry investment levels and the Commission does not anticipate that either concept would be investable for the members of the Joint Venture or other private sector actors.
- (d) The range of tolling fees currently under negotiation with Darwin-LNG are below US\$2.00 per MMBtu, and would thus fall within the range in which the upstream concept would be economically viable.
- (e) Due to the need to construct a new LNG plant at Beaco in Timor-Leste, a Timor-LNG plant would require a higher tolling fee to generate an adequate rate of return. After adjusting costs estimates, the Commission estimates that, with a toll of US\$2.00 per MMBtu, Timor-LNG would have a negative return of minus 4% on a capital investment of US\$7,142,000,000.
- (f) In order to match the target return of the Timor-Leste Petroleum Fund of 4%, it is estimated that Timor-LNG would need to charge a tolling fee of at least US\$3.50. In order to achieve a return of 7% to permit debt financing or the equity participation of an experienced operator, the Commission anticipates that the Timor-LNG would need to charge a tolling fee of at least US\$4.50. Both scenarios exceed the level that the upstream concept could reasonably be expected to bear.

Based on this assessment, the Commission considers that the challenge for Timor-LNG would be to achieve an acceptable rate of return on the downstream project without exceeding the tolling fee that the upstream concept could actually bear. The Commission considers that this could be done, but only with a direct subsidy of Timor-LNG by the government of Timor-Leste or another funder. The Commission estimates that a direct subsidy of the project's capital expenditure on the order of US\$5,600,000,000 would be required in order to render the remainder of the downstream project financeable through equity or debt.

In the Commission's view, these elements should be borne in mind in the consideration by Timor-Leste and Australia of the development benefits of the two concepts.

\* \* \*

**ANNEX: COMPARATIVE ESTIMATES FOR T-LNG AND D-LNG**

	<b>TIMOR-LNG CASE</b>	<b>DARWIN-LNG CASE (WITH OPERATIONS FROM TIMOR-LESTE)</b>
<b>Investment Required</b>		
Investment by Timor-Leste	Timor-Leste required to finance or arrange capital financing of US\$7,142,000,000	US\$0
Estimated return on investment	Negative 4% return on 100% TL equity (Direct subsidy of US\$5.6 billion necessary to secure debt finance or operator equity)	2.7% equity in Darwin LNG (0.9% free) 9% equity in Sunrise JV (3% free)
<b>Development Benefits</b>		
Location of LNG Plant	Beaço, Timor-Leste	Darwin, Australia
Pipeline	LNG pipeline to Beaço, Timor-Leste	Domestic gas pipeline to Timor-Leste; LNG pipeline to Darwin
Additional revenue to Timor-Leste pursuant to Treaty	US\$0	10% of government take (approx. US\$3.134 to US\$3.539 billion) available for development investment
Downstream operations	In Timor-Leste (estimated US\$280,000,000 in OPEX per year)	In Australia
Offshore operations and logistics support		Operated from Timor-Leste (estimated US\$282,000,000 in OPEX per year)
Fabrication		Fabrication facility in Timor-Leste (approximately US\$6,000,000 per year)
Sourcing of supplies		Commitment to prioritize Timorese supply, plus up to US\$10,000,000 per year to support business development in Timor-Leste
Employment and training		Commitment to prioritize Timorese employment, plus up to US\$10,000,000 per year for training and technical education in Timor-Leste
Support for Timor-Leste Petroleum Industry (JV)		US\$200,000,000 for domestic gas pipeline; US\$50,000,000 for Suai supply base
Gas and condensate stream		50M cu ft per day gas at gas transfer price; 10% of condensate at market value
Support for Timor-Leste Petroleum Industry (Australia)		US\$100,000,000 for domestic gas pipeline; and commitment to facilitate use of Timor-Leste facilities to supply Australian offshore fields, and facilitate Timorese employment in Darwin
<b>Certainty of Implementation</b>		
Assessment of commercial viability	Considered commercially viable by Timor-Leste only	Considered commercially viable by all parties
Estimated project return (IRR) Integrated Project	7.0%	N/A (Darwin facility would charge a tolling fee)
Segmented Project (Upstream) Estimated return (IRR)	11.82% at US\$4.00 tolling fee 13.18% at US\$3.00 tolling fee 14.44% at US\$2.00 tolling fee	14.52% at US\$3.00 tolling fee 16.08% at US\$2.00 tolling fee 17.27% at US\$1.20 tolling fee
Segmented Project (Upstream) Maximum viable tolling fee	Below US\$2.00 per MMbtu to achieve 15% IRR	US\$2.50 per MMbtu to achieve 15% IRR
Segmented Project (Downstream) Estimated return (IRR)	4.51% at US\$4.00 tolling fee 2.69% at US\$3.00 tolling fee negative 4% at US\$2.00 tolling fee	N/A (Darwin-LNG would handle downstream)
Segmented Project (Downstream) Minimum viable tolling fee	US\$3.57 toll to achieve 4% IRR (govt equity) US\$4.51 toll to achieve 7% IRR (debt finance)	N/A (Darwin-LNG would handle downstream)



## **CONDENSED COMPARATIVE ANALYSIS OF ALTERNATIVE DEVELOPMENT CONCEPTS**

*Pursuant to the Supplemental Action Plan agreed with the Parties in December 2017, the Commission has retained the assistance of an expert in oil and gas development planning to undertake a comparative analysis of the alternative development concepts proposed by Timor Gap and the Greater Sunrise Joint Venture based on neutral economic modelling. This document is intended to set out a condensed account of that comparative analysis.*

### **A. Introduction**

This analysis examines the subsurface (reservoir) assumptions, development plans, costs estimates and commercial potential of the respective alternative development concepts for the Greater Sunrise field prepared by Timor Gap and the Greater Sunrise Joint Venture (“SJV”). These alternatives are Timor Gap’s concept for the development of the field by way of a fixed platform and multiples pipelines to a new LNG plant in Timor-Leste (also known as Timor-LNG) and the SJV’s concept for the development of the field by way of a Floating Production Storage and Offloading (“FPSO”) unit with a pipeline to tie in to the Bayu Undan pipeline to the existing LNG plant at Wickham Point in Darwin, Australia.

The key technical drivers of the differences between the concepts are the resource volumes assumed and the relative technical risk of the upstream development concepts. The key commercial issue is the comparative economics of the two concepts, the requirement to invest in the construction of a new LNG plant in Timor Gap’s concept, and the tolling fee that such new plant would need to receive to be commercially viable.

### **B. Subsurface (Reservoir) Assessment and Production Forecasts**

As part of their respective concepts, Timor Gap and the SJV have each independently undertaken technical evaluations of the gas initially in place in the Greater Sunrise reservoir and reached similar mid-case estimates. Both Timor Gap and the SJV have also identified field segmentation (discontinuities in the reservoir that reduce the area drained by each well) and the influx of water, which reduces the proportion of gas recovered, as key issues in the development of the field.

Both Timor Gap and the SJV have presented a range of potential recovery factors for gas from the Greater Sunrise field. The SJV’s economic model appears to be based on a 53% recovery factor (*i.e.*, an estimate that 53% of the gas initially in place could be recovered). Timor Gap appears to estimate a higher 75% recovery factor, based on continued low-level production for domestic gas after the end of LNG production. Without this tail production, Timor Gap’s recovery factor appears to be 61%. The variance in recovery factor between 53% and 61% is within expected estimated range, given the data available and prior to production from the field. Subsequent economic analysis is considered for both a 60% and 50% recovery factor. The tail domestic gas production anticipated by Timor Gap has no significant effect on the economics of the two concepts and is not considered further.

In the SJV concept, should a higher recovery factor of 60% be achieved, production could be extended by about 6 years as more gas would be recovered. In the Timor Gap concept, a lower recovery factor of 50% would reduce the production period by approximately 5 years.

### **C. Timor Gap Upstream Concept**

The Timor Gap upstream concept envisages a fixed platform offshore with twin gas pipelines to shore in Timor-Leste with two additional pipelines to Timor-Leste for liquids and for the return of regenerated mono ethylene glycol (“MEG”). Condensate processing and MEG regeneration takes place on shore in Timor-Leste.

The concept is technically feasible. However, the requirement for onshore condensate processing and the use of multiple pipelines across the Timor Trough increases the comparative risk of pipeline damage due to localised failure of the Timor slope and hence potentially decreases the reliability and operability of the project. The concept also carries increased risk of hydrate blockage in both the gas and liquids pipelines.<sup>1</sup> Timor Gap's proposed pipelines are at the limit of current industry water depth capability.

For capital expenditure, the Timor Gap well design concept, configuration, and cost estimates appear to be inconsistent with the high initial well flow rate assumed in the production profile. The Timor Gap estimate for the twin 18" gas pipelines is very close to its original estimate for a single 24" pipeline and does not appear to address the increased installation costs of multiple pipelines. The costs of a full integrated project front end engineering design ("FEED") also appear to be omitted from Timor Gap's estimate.<sup>2</sup>

For operating expenditure, Timor Gap's costs estimates for the platform appear to be reasonable, but omit the operating expenditure of the onshore liquids processing facility (which would be separate from the LNG plant and would have limited operational synergies), as well as the operations, inspection and maintenance costs of the multiple pipelines.<sup>3</sup> Given the risks of the concept, it would be reasonable to make an economic provision for one pipeline repair in the 25 year life of the project, however this has not been added to the Timor Gap operating expenditure estimates.

#### **D. Sunrise Joint Venture Upstream Concept**

The SJV upstream concept is for all gas and liquids processing to take place offshore on an FPSO. Gas would be delivered to Darwin by a single pipeline joining the existing Bayu Undan pipeline. The SJV upstream concept is industry standard. The FPSO is large, but within industry technology for water depth, swivel, processing, topsides load, and vessel size.

For capital expenditure, the SJV's estimates for subsea costs appear to be higher than recent analogue projects. In particular, the SJV's installation costs appear to be based on vessel spread rates prevailing several years ago at the market peak. Similarly, the SJV costs estimates for drilling appear to be based on rig rates prevailing several years ago at the market peak.<sup>4</sup>

The SJV's estimate for operating expenditure appears reasonable, as does the project schedule.

#### **E. Timor Gap Downstream Concept**

The Timor Gap concept is for the construction of a greenfield 5 MMTpa LNG plant at Beaco on the south coast of Timor-Leste that would receive gas from the offshore project. Condensate would also be processed onshore with MEG regeneration and return to offshore.

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<sup>1</sup> These risks could be mitigated by locating condensate processing and MEG regeneration on a second offshore platform or FPSO. As this would not meaningfully alter the economic results, however, this possibility has not been evaluated further.

<sup>2</sup> For modelling purposes, the following adjustments were made to Timor-Gap's assumptions: (a) drilling cost estimates adjusted to current market rates for drilling rigs and well services; (b) subsea cost estimates adjusted to current market rates for installation vessels; (c) gas pipeline costs re-estimated for twin lines; (d) condensate/MEG costs re-estimated for twin lines; and (e) capital provision added for integrated project FEED. Specific adjustments are set out in an annex to this paper.

<sup>3</sup> For modelling purposes, the following adjustments were made to Timor-Gap's assumptions: (a) operating expenditure added for liquids processing facility; and (b) operating expenditure added for pipeline operations, expenditure, and maintenance. Specific adjustments are set out in an annex to this paper.

<sup>4</sup> For modelling purposes, the following adjustments were made to the SJV's assumptions: (a) drilling cost estimates adjusted to current market rates for drilling rigs and well services; and (b) subsea cost estimates adjusted to current market rates for installation vessels. Specific adjustments are set out in an annex to this paper.

For capital expenditure, Timor Gap's estimates for the LNG liquefaction plant and marine facilities appear reasonable. However, Timor Gap's estimate does not appear to include the cost of direct infrastructure associated with the LNG plant, such as roads, offices, and warehousing, and excludes LNG technology licence fees. Timor Gap's concept also appears to exclude the costs for the LNG Plant FEED.<sup>5</sup>

Timor Gap's estimate of LNG plant operating costs (in its economic model) appears to be based on a notional figure of US\$100 million per year, rather than the US\$204 million per year estimated by Timor Gap in its Greater Sunrise Timor LNG Project Development Concept Report, which also appears to be below prevailing industry levels.<sup>6</sup>

While Timor Gap's overall construction schedule appears reasonable, it is based on timetable with pre-FEED work commencing in 2016, which has now slipped by some 2 years, resulting in an earliest start-up date one year later than that used by Timor Gap in its economic model. Timor Gap's concept also appears to envisage 100% production from day one, rather than the industry standard expectation for a new facility of 50% production efficiency during the first year.<sup>7</sup> The Timor Gap economic model does not make any provision for operational downtime in subsequent years, which is likely to be in the order of 5% based on industry experience

#### **F. SJV Downstream Concept**

The SJV concept is for gas to be processed at the existing LNG plant at Wickham Point in Darwin, Australia. Although the existing pipeline and LNG plant are some 20 years old, industry experience indicates that they should remain serviceable and reliable for the life of the project with appropriate inspection and maintenance. It is understood that full responsibility for maintenance and repair of the existing infrastructure would be covered by the tolling fee charged by the downstream owner, limiting the risk to the upstream joint venture

As the Wickham Point facility is owned by a different corporate entity and would charge a tolling fee to process gas from Greater Sunrise, the economics of the SJV downstream concept have not been independently analysed.

#### **G. Economic Model Assumptions**

Both Timor Gap and the SJV have assumed the application of the existing fiscal terms under which 20.1% of the asset is governed by JPDA production sharing contract terms (divided 90:10 between Timor-Leste and Australia) and 79.9% is governed by Australian terms. Although this fiscal regime will be replaced under the new treaty, the treaty provides that new fiscal arrangements will provide "conditions equivalent" and the existing regimes is used for modelling purposes.

The economic models prepared by Timor Gap and the SJV, as would be expected, make several non-comparable assumptions. In the SJV model, provision is made for a notional marketing entity that is understood to reflect the specifics of the application of the Australian petroleum resources rent tax. An alternative approximation of petroleum resources rent tax is used in the Timor Gap model. For comparability, the marketing arrangement of the SJV model has been simplified, with all revenues

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<sup>5</sup> For modelling purposes, the following adjustments were made to Timor-Gap's assumptions: (a) costs added for roads, offices, warehousing, and licence fees; (b) costs added for LNG plant FEED. Specific adjustments are set out in an annex to this paper.

<sup>6</sup> For modelling purposes, the annual operating expenditure of the LNG plant was increased to US\$250 million.

<sup>7</sup> For modelling purposes, the following adjustments were made to Timor-Gap's assumptions: (a) a one-year delay in startup; and (b) 50% production for year one.

accruing to the upstream JV.<sup>8</sup> For comparability, adjustments are likewise made to the Timor Gap model as follows:

- The Timor Gap model applies the tolling fee to the feedstock (*i.e.*, the gas going into the plant), rather than the LNG sales volumes (the gas coming out of the plant). The industry norm is to apply the tolling fee to LNG sales volume, and the Timor Gap model is adjusted accordingly.
- The Timor Gap model is premised upon no downtime (*i.e.*, 365 days per year operations). The industry norm is to allow for 20 days downtime, and the Timor Gap model is adjusted accordingly.

Additionally, the JV and Timor Gap models differ as to whether LNG price inflation on the tolling fee would start in 2018 or upon production. While either approach is reasonable, the same approach must be used to enable an accurate comparison and the Timor Gap model is adjusted such that escalation of the tolling fee starts upon production, in line with SJV model.

## H. Comparative Economic Analysis: Upstream Concepts

For analysis purposes, the required gas price (*i.e.*, the price at entry to the LNG plant required to achieve a 15% IRR for the upstream joint venture) was calculated for each of the Timor Gap and SJV upstream concepts after adjusting costs and assumptions. The results for the SJV upstream concept are as follows:

SJV Upstream Concept	
Case	Required Gas Price for Upstream 15% IRR US\$/MMBtu
SJV Base Case	US\$5.49
Adjusted Assumptions (exclude notional marketing entity)	US\$6.11
Production Normalized to 60% recovery	US\$6.01
Costs Normalized	US\$5.19
<b>Final Normalized Case</b>	<b>US\$5.19</b>

The results for the Timor Gap upstream concept are as follows:

Timor Gap Upstream Concept	
Case	Required Gas Price for Upstream 15% IRR US\$/MMBtu
Timor Gap Base Case	US\$2.89
Apply toll to LNG sales gas Include downtime Escalate toll from production start	US\$3.04
Delay start up by 1 year 50% uptime in first year	US\$4.52
Production normalized to 60% recovery	US\$4.57
Normalize capital expenditure	US\$6.18
Normalize operational expenditure	US\$6.21
<b>Normalized Case at 60% recovery</b>	<b>US\$6.21</b>
Normalized Case at 50% recovery	US\$6.52

<sup>8</sup> This adjustment slightly decreases the returns of the SJV upstream concept and increase the government tax revenue, but renders the two models more comparable.

The approximate IRR that each upstream concept could be expected to generate at different potential tolling fees (assuming a 60% recovery factor and after normalizing costs and inputs) are as follows:

<b>Tolling Fee US\$/MMBtu</b>	<b>SJV Upstream Concept IRR %</b>	<b>Timor Gap Upstream Concept IRR %</b>
\$1.2	17.27%	15.40%
\$2	16.08%	14.44%
\$2.5	15.32%	13.82%
\$3	14.52%	13.18%
\$3.5	13.70%	12.51%
\$4	12.83%	11.82%
\$4.5	11.92%	11.10%

**I. Comparative Economic Analysis: Timor Gap Downstream Concept**

For analysis purposes, the Timor Gap downstream concept was evaluated with respect to the tolling fee required for the Timor Gap downstream project to earn between 0% and 10% IRR, calculated as follows:

<b>Timor Gap Downstream Concept</b>				
<b>Cases</b>	<b>Required Toll for 0% IRR US\$/MMBtu</b>	<b>Required Toll for 4% IRR US\$/MMBtu</b>	<b>Required Toll for 7% IRR US\$/MMBtu</b>	<b>Required Toll for 10% IRR US\$/MMBtu</b>
Timor Gap Base Case	\$1.26	\$1.82	\$2.49	\$3.35
Apply toll to LNG sales gas Include downtime Escalate toll from production	\$1.72	\$2.49	\$3.41	\$4.59
Delay start up by 1 year 50% production efficiency in first year	\$1.75	\$2.67	\$3.79	\$5.30
Production normalized to 60% recovery	\$1.95	\$2.94	\$4.06	\$5.54
Normalize capital expenditure	\$1.91	\$2.79	\$3.75	\$4.99
Normalize operational expenditure	\$2.73	\$3.57	\$4.51	\$5.74
<b>Normalized Case at 60% recovery</b>	<b>\$2.73</b>	<b>\$3.57</b>	<b>\$4.51</b>	<b>\$5.74</b>
Normalized Case at 50% recovery	\$3.11	\$4.00	\$4.95	\$6.17

The approximate IRR that the Timor Gap downstream concept could be expected to generate at different potential tolling fees (assuming a 60% recovery factor and after normalizing costs and inputs) are as follows:

<b>Timor Gap Downstream Concept</b>	
<b>Tolling Fee US\$/MMBtu</b>	<b>IRR %</b>
\$2	negative 4.62%
\$3	2.69%
\$4	6.23%

## J. Comparative Economic Analysis: Upstream Concepts

A further analysis was undertaken of total government take (in accumulated cash flow) for Australia and Timor-Leste under both the SJV and Timor Gap Concepts at a range of possible tolling fees.

In the case of the SJV concept, this analysis was undertaken at the US\$2.00 toll used as a base in both the SJV and Timor Gap models and at a hypothetical lower toll of US\$1.20 in the event that significant savings are achieved in negotiations with Darwin LNG JV. This analysis excludes the income to the operator of the Wickham Point plant or the corporate income taxation paid by the downstream operator to Australia:

SJV Concept			
Tolling Fee US\$/MMBtu	Total Gov. Upstream Take US\$MM	Timor-Leste Upstream Take US\$MM	Australia Upstream Take US\$MM
\$1.20	\$35,392	\$28,314	\$7,078
\$2.00	\$31,337	\$25,070	\$6,267

In the case of the Timor Gap concept, this analysis was undertaken at a range of tolling fees. This analysis includes the income to the operator of Timor-LNG and the corporate income taxation paid to Timor-Leste:

Timor Gap Concept						
Tolling Fee US\$/MMBtu	Total Upstream Gov. Take US\$MM	Australia Upstream Take US\$MM	Timor-Leste Upstream Take US\$MM	Timor-LNG Owner Take US\$MM	Timor- Leste Income Tax US\$MM	Timor-Leste + Timor-LNG Take US\$MM
\$2.00	\$28,775	\$8,632	\$20,142	neg. \$4,895	0	\$15,247
\$3.00	\$24,555	\$7,366	\$17,188	\$1,661	\$333	\$19,182
\$3.50	\$22,432	\$6,729	\$15,702	\$4,772	\$666	\$21,140
\$4.00	\$20,299	\$6,090	\$14,209	\$7,881	\$1,001	\$23,091
\$4.50	\$18,155	\$5,446	\$12,708	\$10,986	\$1,340	\$25,035

## K. Economic Analysis: Financing and Subsidy

A final analysis was undertaken of the potential for Timor Gap's development concept to address the feasibility of equity participation from an experienced international operator and to secure debt financing, and to estimate the level of government subsidy that would be necessary to render the remainder of the project financeable.

Without knowing the specific financing or operator arrangements contemplated by Timor Gap, it is likely that an international operator or institutional lender would require an IRR in the order of 10%. Even if the government of Timor-Leste were willing to provide equity financing for the remainder of the project at an IRR of 0% or debt financing could be achieved at 7%, the project would still need to generate an overall IRR in the order of 4% to 5% to be sustainable (depending on the respective shares of the project). To achieve an overall IRR of 4%, (similar to the return understood to be achieved by the Timor-Leste Petroleum Fund) the LNG plant would require a tolling fee of approximately US\$3.50 per MMBtu.

In order to achieve a US\$2.00 tolling fee while preserving a 7% IRR on the overall project, it would be necessary for the government of Timor-Leste to directly subsidise the capital expenditure of the LNG facility. A subsidy on the order of US\$5.6 billion (or about 80% of capital expenditure)—with no

expectation of receiving revenue from the operation of the facility— would be required in order to render the remainder of the downstream project financeable.

## **L. Conclusion**

The foregoing analysis supports the following conclusions on the basis of neutral economic modelling:

- (a) Timor-Leste and the SJV have analysed the Timor Gap concept both as an integrated project (i.e., with both upstream and downstream returns combined) and on a tolling basis (i.e., with a fee paid to the downstream plant for LNG processing). The SJV concept would only be on a tolling basis.
- (b) As an integrated project, the Commission anticipates that, under currently expected market conditions, Timor Gap's concept would generate a return in the order of 7.0% on a capital investment of US\$15,621,000,000. This would not be sufficient to meet the industry standard for investment by an international oil company.
- (c) As a tolling project, the upstream concept for Greater Sunrise (as envisaged either by Timor-Leste or the SJV) has a fairly high cost of production and, under currently anticipated market conditions, is limited in the tolling fee that it could pay for LNG processing while remaining economically viable. At a tolling fee of US\$2.00 per MMBtu or lower, the return on the upstream project would fall within industry investment levels. However, should the tolling fee be higher than US\$2.50 per MMBtu, the return on the upstream project would fall below industry investment levels and the Commission does not anticipate that either concept would be investable for the members of the Joint Venture or other private sector actors.
- (d) The range of tolling fees currently under negotiation with Darwin-LNG are below US\$2.00 per MMBtu, and would thus fall within the range in which the upstream concept would be economically viable.
- (e) Due to the need to construct a new LNG plant at Beaco in Timor-Leste, a Timor Gap downstream concept would require a higher tolling fee to generate an adequate rate of return. After adjusting costs estimates, the Commission estimates that, with a toll of US\$2.00 per MMBtu, Timor Gap's downstream concept would have a negative return of minus 4% on a capital investment of US\$7,142,000,000.
- (f) In order to match the target return of the Timor-Leste Petroleum Fund of 4%, it is estimated that the LNG plant in Timor-Leste would need to charge a tolling fee of at least US\$3.50. In order to achieve a return of 7% to permit debt financing or the equity participation of an experienced operator, the Commission anticipates that Timor-LNG would need to charge a tolling fee of at least US\$4.50. Both scenarios exceed the level that the upstream concept could reasonably be expected to bear.

Based on this assessment, the challenge for Timor Gap's concept would be to achieve an acceptable rate of return on the downstream project without exceeding the tolling fee that the upstream concept could actually bear. The Commission considers that this could be done, but only with a direct subsidy of the downstream project by the government of Timor-Leste or another funder. A direct subsidy of the project's capital expenditure on the order of US\$5,600,000,000 would be required in order to render the remainder of the downstream project financeable through the equity participation of an experience operator or by debt.

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**ANNEX:  
ADJUSTMENTS TO ECONOMIC ASSUMPTIONS**

<b>ADJUSTMENTS TO JOINT VENTURE ECONOMIC ASSUMPTIONS FOR UPSTREAM CONCEPT</b>	
<b>COMMENT</b>	<b>ADJUSTMENT</b>
Cost estimates for wells and drilling do not appear to reflect reduction of rates in current market conditions	Reduce capital expenditure for wells to US\$1,040 million
Cost estimates for subsea installations do not appear to reflect reduction of rates in current market conditions	Reduce capital expenditure for subsea to US\$2,080 million
<b>ADJUSTMENTS TO TIMOR GAP ECONOMIC ASSUMPTIONS FOR UPSTREAM CONCEPT</b>	
<b>COMMENT</b>	<b>ADJUSTMENT</b>
Cost estimates for wells appear overly optimistic	Increase capital expenditure for wells to US\$1,040 million
Cost estimates for subsea installations appear overly optimistic	Increase capital expenditure for subsea to US\$2,080 million
Cost estimates for gas pipelines for two 18" pipelines (derived from estimate for one 24" pipeline) appear overly optimistic	Increase capital expenditure for gas pipelines to US\$1,500 million
Cost estimates for two 18" MEG pipelines based on estimate for gas pipeline	Increase capital expenditure for MEG pipelines to US\$1,400 million
No provision made for costs of Upstream Front-End Engineering and Design (FEED)	Add capital expenditure of US\$300 million
Upstream operating expenditure does not include operating expenditure for onshore MEG plant and liquid processing or pipeline repair contingency	Increase upstream operating expenditure to US\$193 million per year
<b>ADJUSTMENTS TO TIMOR GAP ECONOMIC ASSUMPTIONS FOR TIMOR-LNG CONCEPT</b>	
<b>COMMENT</b>	<b>ADJUSTMENT</b>
Tolling fee is applied to raw gas feedstock rather than LNG sales volumes	Apply tolling fee to LNG sales volumes per industry standard
Inflation of tolling fee starts from 2017	Begin inflation of tolling fee from start of production, for comparability
Model assumes operation 365 days per year	Add assumption of 20 days per year downtime, per industry standard
LNG costs estimates do not include for infrastructure associated with the LNG plant, LNG technology licence fees, or LNG Front-End Engineering and Design (FEED) costs	Increase LNG Plant capital expenditure to US\$7,142 million
LNG plant operating expenditure appears overly optimistic	Increase LNG Plant OPEX to US\$250 million per year
Economic model is based on a schedule which has already slipped by one to two years	Add one-year delay to project schedule
Model assumes operation at 100% capacity from day 1 of operations	Assume operation at 50% capacity for first year, per industry standard





**REMARKS DELIVERED BY H.E. AMBASSADOR PETER TAKSØE-JENSEN  
ON THE OCCASION OF THE SIGNATURE OF THE  
TIMOR-LESTE MARITIME BOUNDARIES TREATY**

On the afternoon of 10 June 2016, I received a fateful call from the PCA, telling me that the PCA was administering the first ever conciliation under Annex V of the UN Convention on the Law of the Sea. They asked whether I would be willing to serve as the Chairman of the Conciliation Commission. I agreed, but I must say that I had no idea what I was getting into.

But neither did Timor-Leste when it decided to initiate this ground-breaking process. Nor could Australia have realized at that time that a mechanism labelled as “compulsory” would actually turn out to be an opportunity to be embraced with open arms. It would provide a means to finally resolve the long-standing maritime boundary dispute and re-establish a strong friendship with its close neighbor.

This required a bit of a leap of faith. This conciliation was a brave new world for all of us, even for those of my fellow Commissioners who have spent much of their careers at the UN, the International Court of Justice, the International Tribunal for the Law of the Sea, the International Law Commission, the International Maritime Organization, and countless international arbitration tribunals. Yet, looking back, that faith was key.

It was Minister Agio (or perhaps Ambassador Abel) who told me a story about an elder in the village who made a prophesy that Xanana would lead his people to independence. The prophet told him not to worry, just to carry on, and it would all work out. I have needed four prophets on the Commission and two disciples from the PCA to keep the faith. But I must thank them for defining our mission at every turn by optimism and the determination that—while sibling States may quarrel—this cannot prevail over the basic friendship between two peoples.

Exhibit A: in the recent Australian foreign policy white paper, the word “partners” or “partnership” appears 182 times. But the word “friendship” appears only once, in the section speaking of Timor-Leste and the treaty that we are here to sign today. You may eventually read some of our reflections on this ground-breaking process in

the Commission's report, but I can already preview that this sense of common mission was the most crucial ingredient of the process: a deep bond, a sincere desire to attack and resolve these issues together, and constant efforts to build back the trust and camaraderie that has always been but an inch below the surface.

This is now the end of a long process. It has taken us to The Hague three times (I speak only of this case); Singapore six times; Copenhagen twice; Sydney; Washington DC; Kuala Lumpur; Canberra; Dili; and, finally, Suai.

So, before I close, I am bound to recall one of Xanana's famous quotes: "reality is man-made". That could not be more true here. This historic agreement has been made possible only by the dedication and hard work of the members of the two States' delegations. It was made possible only by the courage shown by the Chief Negotiator for Timor-Leste, Xanana Gusmão himself, by the Honourable Julie Bishop, by Minister Agio Pereira, by Gary Quinlan, and by all the members of their teams, who are too numerous to mention by name. Thank you for your dedication. Thank you for your perseverance through the difficult points in this process. And thank you for your courage in taking the difficult decisions and forging the compromises necessary to reach this agreement.

At various points in this process, we have needed to use animal metaphors to be able to abstract and discuss some of the difficult issues. These metaphors have included elephants of the African and Asian persuasions; those same elephants climbing up and down trees; Singaporean merlions standing guard; dry buffaloes getting wet; and, at one point, the Timor Sea even became a polar bear conservation area.

So, bear with me one last time. If, as they say, "it takes two to tango", then I am glad that we have wound up with crocodiles dancing together with kangaroos.

On behalf of the Conciliation Commission, we are proud to be part of this new reality of a fully sovereign Timor-Leste walking hand in hand with Australia to face the challenges of our time. May both States continue to demonstrate the leadership they have. And may other States take inspiration to potentially make use of this conciliation mechanism.

Thank you.