2002 THE ASEAN MEMORANDUM OF UNDERSTANDING (MOU) ON THE TRANS-ASEAN GAS PIPELINE (TAGP)

Signed by the Energy Ministers at the 20th ASEAN Ministers on Energy Meeting in Bali, Indonesia on 5 July 2002

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The Governments of Brunei Darussalam, the Kingdom of Cambodia, the Republic of Indonesia, the Lao People's Democratic Republic, Malaysia, the Union of Myanmar, the Republic of the Philippines, the Republic of Singapore, the Kingdom of Thailand, and the Socialist Republic of Viet Nam:

RECALLING the Agreement on ASEAN Energy Cooperation signed in Manila, on 24th June 1986, which emphasised cooperation among the Member Countries in developing energy resources to strengthen the economic resilience of the individual Member Countries as well as the economic resilience and solidarity of ASEAN;

RECALLING further the Protocol Amending the Agreement on ASEAN Energy Cooperation signed in Bangkok on 15th December 1995, which provided for focused energy cooperation in ASEAN to pursue cooperative activities in various areas of energy;

NOTING that the ASEAN Petroleum Security Agreement signed in Manila, on 24th June 1986, which established the ASEAN Emergency Petroleum Sharing Scheme for crude oil and/or petroleum products in times/circumstances of both shortages and oversupply;

REALISING that energy self-sufficiency can be achieved through national and multinational efforts geared towards indigenous energy resource exploration, development, exploitation, distribution and transportation, and undertaken in a manner that both conserves the resources and preserves the environment and human habitat;

NOTING FURTHER that the importance of ASEAN energy cooperation was further underscored in the Bangkok Summit Declaration of 15th December 1995, which stated that ASEAN shall ensure greater security and sustainability of energy supply through diversification, development and conservation of resources, the efficient use of energy, and the wider application of environmentally - sound technologies; and, as reinforced in the ASEAN Vision 2020 pursuant to the ASEAN Second Informal Summit on 15th December 1997 in Kuala Lumpur, calling for cooperative activities aimed at establishing interconnecting arrangements for natural gas, among others, within ASEAN through the Trans-ASEAN Gas Pipeline (TAGP) Project;

AWARE that the development of the TAGP Project is a specific energy programme in the Hanoi Plan of Action endorsed by the ASEAN Heads of Government on 16th December 1998 in the Sixth ASEAN Summit and the ASEAN Plan of Action for Energy Cooperation 1999-2004 adopted by the 17th ASEAN Ministers on Energy Meeting in Bangkok on 3rd July 1999, which entrusted the responsibility of implementing the TAGP to the ASEAN Council on Petroleum (ASCOPE) through the auspices of the ASEAN Ministers on Energy, and that ASCOPE was directed to form the TAGP Task Force to implement the TAGP Project in collaboration with national focal points and relevant institutions;

CONSIDERING that natural gas is an abundant, clean, safe and environment friendly alternative source of energy in the Southeast Asian Region, and the implementation of a regional plan for its transportation through the proposed and future TAGP inter-connections (hereinafter referred to as "Pipelines") among the Member Countries will spur economic development and enhance energy security in the region;

MINDFUL that there is a need to recognise, coordinate and rationalise these efforts, plans and programmes for natural gas production, distribution and utilisation;

ACKNOWLEDGING that the involvement of the governments of the Member Countries and participation of the private sector are needed to support these plans and programmes for natural gas;

HAVE AGREED AS FOLLOWS:

ARTICLE I. OBJECTIVE

The objective of this Memorandum of Understanding is to provide a broad framework for ASEAN Member Countries to cooperate towards the realisation of the TAGP Project to help ensure greater regional energy security.

ARTICLE II. GENERAL PROVISIONS

Member Countries shall:

Establish cooperation in the various aspects of the realisation of the TAGP Project;

Initiate individual and/or joint studies, either on a bilateral or multilateral basis, to support and encourage the production, utilisation, distribution, marketing, and sale of natural gas among themselves;

Encourage cooperation and pooling of resources by the governments and/or private sector for joint projects subject to commercial viability pertaining to the TAGP Project;

Subject to, and consistent with, the national laws of each Member Country, take individual and collective initiatives to study, assess, and review national and regional legal and institutional frameworks for natural gas, concerning cross border issues relative to the commercial and economic feasibility, construction, financing, operation, and maintenance of the Pipelines as well as the supply, transportation, and distribution of natural gas to Member Countries, as herein below agreed upon.

ARTICLE III. CROSS-BORDER ISSUES

Member Countries shall conduct relevant studies on the following:

A. FINANCING

Available financing modes or arrangements relative to the financing of the construction, operation and maintenance of the Pipelines, as well as the supply, transportation and distribution of natural gas to Member Countries. In this respect, Member Countries recognise the important role that will be played by the private sector in financing the construction of the Pipelines and in the supply, transportation and distribution of natural gas to Member Countries.

B. TECHNICAL SPECIFICATIONS

Standardisation of technical specifications for the Pipelines, such as, but not limited to, design and construction standards, operation and maintenance guidelines, safety, environment and measurement standards which are internationally recognised by the oil and gas industry.

C. ACCESS AND USE

Effective and stable contractual arrangements for the supply, distribution and transportation of natural gas, including adherence to the open access principle as well as management of the Pipelines in accordance with such internationally accepted standards in the oil and gas industry.

D. SECURITY OF SUPPLY AND EMERGENCY SUPPLY ARRANGEMENTS

Appropriate measures to ensure security and safety of the Pipelines and the uninterrupted flow of contracted natural gas for transmission through the Pipelines including a framework for cooperation in the event of a serious disruption of natural gas supply, subject, however, to mutual consultations.

E. HEALTH, SAFETY AND ENVIRONMENT

Possible cooperation to mitigate the risk and impact on the environment which the construction, operation, and maintenance of the Pipelines may pose to the community, property, and environment, while recognising each Member Country's right to determine in accordance with its own national laws, safety measures and environmental requirements which are to govern the construction, operation, and maintenance of the Pipelines constructed within its territory, including the designation of its own inspectors.

F. TRANSIT RIGHTS

Acceptable measures which would facilitate the issuance of permits, licenses, consents, or other authorisations for transit Pipelines and natural gas being transported through the territory of such Member Country.

G. TAXATION AND TARIFF

Arrangements for the mutually agreed imposition of, or exemption from, import, export or transit fee, duty, tax or other government imposed fees and charges on the construction, operation, and maintenance of the Pipelines as well as the natural gas in transit.

H. ABANDONMENT

Exploring possible cooperation and coordination measures concerning the potential further economic use of such abandoned Pipelines, without undermining each Member Country's right to enforce its own national laws relative to the abandonment of Pipelines within its territory.

I. JURISDICTION

Determining jurisdiction and responsibility over the Pipelines, particularly for Pipelines segments located in the high seas.

ARTICLE IV. INSTITUTIONAL ARRANGEMENTS

- 1. The ASEAN Council on Petroleum (ASCOPE), being responsible for the effective implementation of the TAGP Project, shall initiate the formation of an ASEAN Gas Consultative Council, to be composed of representatives from the ASEAN Member Countries, ASCOPE Members and the ASEAN Centre for Energy (ACE). This ASEAN Gas Consultative Council shall facilitate and assist ASCOPE in the implementation of this Memorandum of Understanding.
- 2. The ASEAN Council on Petroleum (ASCOPE) shall submit periodic reports on the implementation of this Memorandum of Understanding to the ASEAN Ministers on Energy Meeting (AMEM), through the ASEAN Senior Officials Meeting on Energy (SOME).

ARTICLE V. CONFIDENTIALITY

All Member Countries shall undertake to observe the confidentiality of documents, information or data received pursuant to the implementation of this Memorandum of Understanding. This obligation shall be observed by Member Countries during the period of validity of this Memorandum of Understanding and after the expiry or termination of this Memorandum of Understanding, unless otherwise agreed by all Member Countries.

ARTICLE VI. DISPUTE SETTLEMENT

The provisions of the ASEAN Protocol on Dispute Settlement Mechanism, done at Manila on 20th day of November 1996, shall apply to consultation and the settlement of disputes under this Memorandum of Understanding.

ARTICLE VII. SUSPENSION

Each Member Country reserves the right, for reasons of security, public order or public health, to suspend, for up to a maximum of sixty (60) days, either in whole or in part, the implementation of this Memorandum of Understanding. A Member Country shall give notice of

its intention to suspend the said implementation of this Memorandum of Understanding by giving written notice to the Secretary-General of ASEAN, who shall immediately notify all other Member Countries. Such suspension shall take effect thirty (30) days from the date of the said notice.

ARTICLE VIII. FINAL PROVISIONS

- 1. This Memorandum of Understanding shall be deposited with the Secretary-General of ASEAN who shall promptly furnish a certified true copy to each Member Country.
- 2. This Memorandum of Understanding is subject to ratification or acceptance by all the Member Countries. The Instrument of Ratification or Acceptance shall be deposited with the Secretary-General of ASEAN who shall promptly inform each Member Country of such deposit.
- 3. This Memorandum of Understanding shall enter into force upon the deposit of Instruments of Ratification or Acceptance by all the Member Countries with the Secretary-General of ASEAN.
- 4. This Memorandum of Understanding shall remain in force for a period of ten (10) years, unless terminated earlier by agreement of all the Member Countries. The expiry or termination of this Memorandum of Understanding shall be without prejudice to the rights and obligations of the Member Countries arising from this Memorandum of Understanding prior to the effective date of expiry or termination of this Memorandum of Understanding.
- 5. A Member Country may at any time give notice of its intention to withdraw from this Memorandum of Understanding, by giving written notice to the Secretary-General of ASEAN, who shall immediately notify all other Member Countries. Such withdrawal shall take effect six (6) months from the date of the said notice.
- 6. This Memorandum of Understanding may be extended beyond its period of validity, as stipulated in paragraph 4 of this Article, with the agreement of all Member Countries.
- 7. Any Member Country may propose any amendment to the provisions of this Memorandum of Understanding. Such amendment shall be effected by written consent of all the Member Countries. Any amendment to this Memorandum of Understanding shall be without prejudice to the rights and obligations of the Member Countries, prior to the effective date of such amendment.

IN WITNESS WHEREOF, the undersigned, being duly authorised thereto by their respective governments, have signed this ASEAN Memorandum of Understanding on the Trans-ASEAN Gas Pipeline Project.

DONE at Bali, Indonesia, this 5th day of July 2002, in a single copy in the English language.

For the Government of Brunei Darussalam: **ABDUL RAHMAN TAIB**, Minister of Industry and Primary Resources

For the Government of the Kingdom of Cambodia: **SUY SEM**, Minister of Industry, Mines and Energy

For the Government of the Republic of Indonesia: **PURNOMO YUSGIANTORO**, Minister of Energy and Mineral Resources

For the Government of the Lao People's Democratic Republic: **NAM VIYAKETH**, Deputy Minister of Industry and Handicraft

For the Government of Malaysia: **LEO MOGGIE**, Minister of Energy, Communications and Multimedia

For the Government of the Union of Myanmar: BRIG. GEN. LUN THI, Minister of Energy

For the Government of the Republic of the Philippines: **VICENTE S. PEREZ, JR**., Secretary of Energy

For the Government of the Republic of Singapore: **RAYMOND LIM SIANG KEAT**, Minister of State for Foreign Affairs and Trade and Industry

For the Government of the Kingdom of Thailand: **PHONGTHEP THEPKANJANA**, Minister to the Prime Minister's Office

For the Government of the Socialist Republic of Viet Nam: **DANG VU CHU**, Minister of Industry









Joint Ministerial Statement The 12th ASEAN+3 (China, Japan and Korea) Ministers on Energy Meeting 8 October 2015, Kuala Lumpur, Malaysia

Introduction

- 1. The 12th ASEAN+3 (China, Japan and Korea) Ministers on Energy Meeting (AMEM+3) was held in Kuala Lumpur, Malaysia on 8 October 2015. The Meeting was chaired by H.E. Datuk Seri Panglima Dr. Maximus Johnity Ongkili, Minister of Energy, Green Technology and Water (MEGTW) of Malaysia and co-chaired by H.E. Mr. Zhang Yuqing, Deputy Administrator of National Energy Administration (NEA) of China, Mr. Hirohide Hirai, Director-General for International Energy and Technology Cooperation, Ministry of Economy, Trade and Industry of Japan, representing H.E. Motoo Hayashi, Minister of Economy, Trade and Industry (METI) of Japan; and H.E. Mr. Chung Yang Ho, Deputy Minister for Trade, Industry and Energy (MOTIE) of the Republic of Korea. The Meeting was also attended by the Ministers of Energy of Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Myanmar, the Philippines, Singapore, Thailand and Vietnam.
- 2. The Ministers affirmed the need to achieve energy security with economic efficiency and environmental sustainability. The Ministers recognised the importance of developing high quality energy infrastructure, bearing in mind the lifecycle costs, environmental impacts and safety aspects of projects. The Ministers affirmed the importance of ASEAN+3 cooperation towards energy sustainability in the region.
- 3. The Ministers noted the endorsement of the ASEAN Plan of Action for Energy Cooperation (APAEC) 2016-2025 at the 33rd AMEM and acknowledged that enhancing energy connectivity and market integration would contribute towards achieving energy security, accessibility and sustainability for the region. In this regard, the Ministers underlined their commitment to support ASEAN in its implementation of the APAEC through various activities, such as capacity building, knowledge sharing and information exchange amongst countries.

Energy Security

4. The Ministers welcomed the steady progress of cooperation and collaboration in sharing best practices and policy development relating to energy security for the region, on oil, coal, liquefied natural gas (LNG) and civilian nuclear energy, amongst others. In this regard, the Ministers expressed their appreciation to Japan for leading the Energy Security Forum in ASEAN+3 energy cooperation, and to China and Korea for supporting the cooperation. The Ministers noted the 12th ASEAN+3 Energy Security Forum held on 19 May 2015 in Jakarta, Indonesia and emphasised the importance of the energy security forum in ASEAN+3 energy

cooperation as a platform to strengthen energy security and sustainable development within the region.

- 5. The Ministers encouraged the ASEAN+3 countries to continue to share information which are helpful references in identifying and developing policy options to ensure energy sustainability in the region.
- 6. On oil stockpiling, the Ministers appreciated the efforts of Oil Stockpiling Road Map (OSRM) Secretariat: ASEAN Centre for Energy (ACE) and Japan Oil, Gas and Metals National Corporation (JOGMEC), for organising the 3rd Workshop of OSRM for ASEAN+3 held on 18 May 2015 in Jakarta, Indonesia which was hosted by the Ministry of Energy and Mineral Resources (MEMR) of Indonesia with support from the Institute of Energy Economics, Japan (IEEJ). The Ministers also appreciated Japan for organising the Energy Security on Oil Capacity Building Programme for Director General Level held on 15-19 June 2015 in Tokyo, Japan, in which the participants exchanged information and discussed current issues and the directions of future cooperation, amongst others, on Japan's petroleum policies and emergency response measures.
- 7. As the way forward, the Ministers welcomed the follow-up activities for 2015-2016, namely: (a) to continue to organise the Workshop of OSRM based on the Result of Country Needs by taking into consideration the specific needs of the various countries; (b) to conduct a detailed assessment of the oil stockpiling situation in ASEAN Member States (AMS) through meeting/discussion with respective officials in each country for on-site data; (c) to develop guidelines for the development of oil stockpiling at national level through a joint study; (d) to conduct joint study with ASEAN Council on Petroleum (ASCOPE) on impact of OSRM on ASEAN Petroleum Security Agreement (APSA); and (e) to implement the Energy Security on Oil Capacity Building Programme for ASEAN for Director Level. The Ministers noted the conduct of on-site data collection and discussion in the AMS, and looked forward to the progress report at the next Meeting.
- 8. Recognising that coal continues to be a major fuel source in the region, the Ministers reiterated their collective call to step up efforts to develop partnership programmes, continue public financial support for new coal-fired power plants, promote policies for clean coal technologies (CCT) including high efficiency coal-fired power generation, which will contribute to energy security and the reduction of GHG emissions, the upgrading of low rank coal technologies, and coal gasification/liquefaction, and develop of the industry in the region. The Ministers expressed that tangible engagement by the +3 countries will contribute to future activities of the ASEAN Forum on Coal (AFOC) in order to support and promote positive collaboration on CCT and enhance public perception on it. In this regard, the Ministers reiterated their collective call to the +3 countries to deepen cooperation with ASEAN through knowledge transfer in clean coal and carbon mitigation technologies which can both significantly address both the increase in electricity demand and the need to reduce GHG emissions.
- 9. The Ministers supported the safe and efficient development of nuclear power in AMS. As a clean energy resource which functions as a base load power source, the Ministers recognised

the importance of nuclear power in advancing energy security and sustainable economic growth as well as in developing diversified energy strategies, addressing the increase of electricity demand and reducing GHG emissions. The Ministers encouraged ASEAN+3 to exchange their experience and best practices, to pursue practical cooperation including in improving nuclear safety performance and coordinating emergency response and preparedness mechanisms, and to help AMS to develop nuclear power, under the precondition of commitment to safety, security and nonproliferation.

10. The Ministers expressed appreciation to China for organising the 1st ASEAN-China Capacity Building on Civilian Nuclear Energy held on 1-7 June 2015 in Shenzhen, China and noted the agreement signed between the ACE and China General Nuclear Power Corporation (CGN) to implement the activities under the AMEM+3/SOME+3 Work Programme in the area of capacity building on nuclear energy. The Ministers welcomed the continuous capacity building activities on nuclear non-proliferation and nuclear security tapping on the expertise of Japan Atomic Energy Agency (JAEA)'s Integrated Support Center for Nuclear Nonproliferation and Nuclear Security (ISCN). The Ministers noted the successful convening of the ACE-JAEA Seminar on Nuclear Security Culture held on 16-17 March 2015 in Dalat, Vietnam. The Ministers welcomed continuous cooperation for capacity building between ACE and JAEA in the region.

Oil Market and Natural Gas

- 11. Recognising the current global and the ASEAN+3 oil and natural gas markets, the Ministers encouraged the ASEAN+3 countries to continue sharing and exchanging information on policy updates, best practices, experiences, technologies on oil and gas exploration and production, human resource development, and challenges and opportunities. The Ministers emphasised the necessity for continued investment in oil and gas development and production for stable and competitively priced supply in future. Given the increasing gas demand and changing gas flow in the region, the Ministers noted the importance of enhancing gas security and promoting flexible LNG markets.
- 12. The Ministers expressed appreciation to Thailand for organising the 4th Oil Market and Natural Gas Forum and the 4th ASEAN+3 Oil Market and Natural Gas Business Dialogue on 5-6 February 2015 in Bangkok, Thailand. The Ministers welcomed the recommendation of the Forum and Business Dialogue to further study the benefits of relaxation of destination clauses in LNG transaction and gas market reform and competitiveness.

Renewable Energy and Energy Efficiency and Conservation

13. The Ministers acknowledged the potential of renewable energy, especially hydropower generation which will continue to remain a cost effective supply of electricity in the region in the long-term, in addressing energy security and environmental sustainability. The Ministers acknowledged the progress of the ASEAN+3 Mitigation Cooperation Programme, such as capacity building on energy efficiency standards and labeling (EE S&L), policy consultation to develop an action plan for EE S&L, participation of Member States in the Energy Korea 2014 - International Energy Forum, and 2015 Mitigation Capacity Building. The Ministers welcomed

the ASEAN+3 Mitigation Cooperation Work Programme 2015-2016 and looked forward to a progress update at the next Meeting. The Ministers thanked the Republic of Korea for leading the New and Renewable Energy and Energy Efficiency and Conservation Forum.

- 14. The Ministers also noted the progress of the ASEAN-Japan Energy Efficiency Partnership Programme (AJEEP), including ECAP (Energy Conservation Workshop under AJEEP) and Energy Efficiency Market Transformation with Information Provision Scheme (EMTIPS) coordinated by Energy Conservation Center, Japan (ECCJ) and ACE. The Ministers further affirmed the importance of continued implementation of these programmes for sustainable energy development in the region.
- 15. The Ministers expressed appreciation to Japan for organising the Roundtable Discussion on Smart Grids and Smart Community on 10-11 March 2015 in Tokyo, Japan. The Ministers noted the key points in promoting the smart community and grid, amongst others, identification of costs and benefits, necessity of making government-led model projects that are commercially viable and sustainable, development of clear policy, roadmap and national strategy by governments, and necessity to balance conventional power generation and smart grids with renewables to ensure stable electricity systems.
- 16. The Ministers recognised the importance of fostering innovative solutions and encouraged the ASEAN+3 countries to continue and initiate information sharing, capacity building and site visits to smart grid/community projects, policy/economic analysis and modeling on renewable energy (RE), business model for energy service companies (ESCO), and waste-to-energy systems.

New Initiatives

- 17. The Ministers encouraged the Republic of Korea to continue the implementation of the Renewable Energy and Energy Storage System (RE+ESS) initiative to promote the efficient use and stable supply of energy using renewable resources through developing and deployment of ESS technologies. The Ministers also welcomed the new proposal of Korea on "Improvement of Energy Safety Management System", and looked forward to the progress report at the next Meeting.
- 18. The Ministers encouraged China to continue to implement the proposed New Energy Sustainable Development Initiative, consisting of: i) China-ASEAN Nuclear Power Capacity Building Programme; ii) Seminar on ASEAN Emergency Response in Case of Power Failure; iii) ASEAN Region Electricity Grid Inter-connection Study; and iv) China-ASEAN Clean Coal Conversion Technology Exchange and Promotion.

Next Meeting

19. The Ministers consented to meet again in Myanmar tentatively in the 3rd week of September 2016 for the 13th ASEAN+3 Ministers on Energy Meeting.

20. The delegation of ASEAN+3 Countries, the ASEAN Secretariat and the ACE expressed their appreciation to the Government and People of Malaysia for the warm hospitality and the excellent arrangements made for the 12th ASEAN+3 Ministers on Energy Meeting.

LIST OF MINISTERS

- a) **Hon. Pehin Dato (Dr.) Mohammad Yasmin Umar**, Minister of Energy at the Prime Minister's Office of Brunei Darussalam;
- b) H.E. Dr. Ith Praing, Secretary of State of the Ministry of Mines and Energy of Cambodia;
- c) H.E. Mr. Zhang Yuqing, Deputy Administrator of National Energy Administration of China;
- d) Mr. Jarman, Ir., MSc., Director General of Electricity, Ministry of Energy and Mineral Resources of Indonesia, representing H.E. Mr. Sudirman Said, Minister of Energy and Mineral Resources of Indonesia;
- e) Mr. Hirohide Hirai, Director-General for International Energy and Technology Cooperation, Ministry of Economy, Trade and Industry of Japan, representing H.E. Motoo Hayashi, Minister of Economy, Trade and Industry of Japan;
- f) H.E. Mr. Chung Yang Ho, Deputy Minister for Trade, Industry and Energy of the Republic of Korea;
- g) Hon. Dr. Khammany Inthirath, Minister of Energy and Mines of Lao PDR;
- h) H.E. Datuk Seri Panglima Dr. Maximus Johnity Ongkili, Minister of Energy, Green Technology and Water of Malaysia;
- i) H.E. U Zay Yar Aung, Union Minister for Energy of Myanmar;
- j) H.E. Mdm. Zenaida Y. Monsada, Officer-in-Charge, Secretary of Department of Energy of the Philippines;
- k) H.E. Mr. S. Iswaran, Minister for Trade and Industry (Industry) of Singapore;
- I) H.E. General Anantaporn Kanjanarat, Minister of Energy of Thailand;
- m) H.E. Mr. Hoang Quoc Vuong, Deputy Minister of Industry and Trade of Viet Nam; and
- n) H.E. Mr. Lim Hong Hin, Deputy Secretary General of ASEAN for ASEAN Economic Community.

JOINT WORK PROGRAMME BETWEEN THE MINISTRY OF ENERGY AND MINERAL RESOURCES OF THE REPUBLIC OF INDONESIA AND THE INTERNATIONAL ENERGY AGENCY 2016-2017

The International Energy Agency (IEA) and the Ministry of Energy and Mineral Resources of Indonesia (MEMR) have built close collaboration based on common concerns for sound energy policy planning and implementation, secure energy supply, power development for sustainable economic growth, and clean energy. MEMR-IEA cooperation has led to the successful implementation of a number of joint activities in the last biennium including: a second In-Depth Review of Indonesia's Energy Policies in 2015, capacity-building workshops and conferences, Indonesia's participation in IEA training courses, regularpolicy information and data exchanges.

This Joint Work Programme builds upon the principles agreed in the two earlier Joint Work Programmes, and is intended to guide bilateral cooperation and activities between the MEMR and IEA in the period 2016-2017. This Joint Work Programme represents a prospective list of activities and will be updated through continuous consultation and periodicreviews.

Acknowledging the extensive collaboration between the Parties Indonesia and the IEA also intend to further their cooperation on clean energy development within the framework of Indonesia's new Centre of Excellence on Clean Energy.

1. Peer Reviewsof Indonesia's Energy Policies

1.1. The 2nd In-depth Policy Review ("IDR") of Indonesia's energy policies, published and launched in 2015, further solidified the mutual interests of Indonesia and the IEA to address common aims to enhance energy policy planning, development and monitoring. The IDR was jointly

- launched by the Minister of MEMR and the IEA Executive Director in Jakarta.
- 1.2. The IEA and MEMR agree to continue conducting mutually-informative peer reviews of Indonesia's energy policies. Following MEMR's participation in the IDR of Japan in 2015, representatives of MEMR may be invited to participate as an observer inthe IDRs of other IEA Member or Partner Countries in 2016-2017, subject to the mutual agreement of the IEA and Indonesia and the consent of the country being reviewed.
- 1.3. The IEA and MEMRcommenced a joint study on fossil fuels subsidy reform policies in 2014. Following the completion of the background study and workshops in 2015, it is anticipated that the study will be launched at the IEA in Paris in early 2016.
- 1.4. MEMR is invited to send a secondee to the IEAto work on research and analysis alongside the IEA's World Energy Outlook (WEO) energy modelling team.

2. Energy Statistics

- 2.1. Subject to resources, the IEA and MEMR will work to strengthen capacity on data collection and processing for all forms of energy in Indonesia. The ultimate goal of this effort will be to ensure Indonesia has a comprehensive and accurate national energy balance which can be used for policy analysis and development in the country.
- 2.2. Specifically for coal data, MEMR and the IEA are planning to work with other relevant agencies assess which changes may be needed to the coal data collection mechanism in Indonesia.
- 2.3. MEMR/ the Centre for Data and Information on Energy and Mineral Resources (PUSDATIN) and the IEA may work together to provide technical assistance for the implementation of a new coal statistics collection mechanismin Indonesia, based on the recommendations of the fact-finding mission.
- 2.4. Indonesia is invited to send 1-2 experts to the IEA for the one-week statistics training courses in 2016/17.

- 2.5. The IEA will invite Indonesia to participate in a one-week statistics training course focusing on key partner countries, which is intended to be heldin Paris in 2016/2017.
- 2.6. The IEA and Indonesia will work together to improve MEMR's capacity to report detailed monthly oil and gas data and to develop appropriate energy efficiency indicators.

3. Emergency Policy & Energy Security

- 3.1. The IEA and the MEMR/National Energy Council of Indonesia (NEC) are collaborating on the development of Indonesia's national emergency preparedness. The IEA will continue to provide information to NEC concerning IEA Member country legislation/regulation, structures and protocols related to emergency preparedness to assist NEC with the preparation of its national emergency preparedness policy and structures. The IEA will facilitate NEC Councillors and Secretariat to observe/visit oil stockpile/strategic reserves in IEA Member countries with experience of interest to Indonesia.
- 3.2. The IEA and MEMR/NEC will undertake a mid-term review of the Emergency Response Assessment (ERA) of Indonesia in 2017 that will enable the IEA to provide updates onemergency preparedness recommendations to NEC and MEMR.
- 3.3. The NEC participated in the IEA Standing Group on Emergency Questions (SEQ) meeting in June 2014. MEMR/NEC will be invited to participate in an upcoming 2016/2017 SEQ meeting.
- 3.4. The NEC participated in the IEA Emergency Response Exercise (ERE) in Paris in November 2014 (ERE 7) and will be invited to attend ERE 8 in 2016.
- 3.5. The NEC participated as an observer in the Emergency Response Review (ERR) of Switzerland on 18 November 2011. It is envisaged that Indonesia will be invited to participate as an observer in an ERR of an IEA Member country in 2016/2017, subject to the mutual agreement of

the IEA and Indonesia and the consent of the Member country being reviewed.

4. Oil and Gas Markets

- 4.1. MEMR and IEA will share experiences and research on how to facilitate the emergence of a well-functioning LNG market in Southeast Asia, with the view to include a focus on Indonesia in aproposed IEAstudy on this topic
- 4.2. MEMR is invited to send a secondee to the IEAto work on gas research and analyses alongside IEA experts.
- 4.3. MEMR and IEA will continue to collaborate on oil and gas market and development issues, including unconventional hydrocarbon

5. Power Sector and Renewable Energy

- 5.1. In2015-2016, the IEA and MEMR/NEC will continue to collaborate on a study focusing on reducing emissions in the power sector. The study explores advanced technologies for power generation, Transmission and Distribution (T&D), including clean coal technologies, low rank coal treatmentand utilization, co-firing with biomass, efficiency and emissions standards, T&D losses, and smart grid. It is intended that the study will take a regional outlook and share best practices with neighbouring countries.
- 5.2. MEMR and the IEA will collaborate on the identification of integrated policy, market and regulatory frameworks that help remunerate new power generation capacities and optimise the use of all power system resources across large geographic areas in Indonesia/South East Asia including remote areas.
- 5.3. The IEA and MEMR will jointly review and strengthen data and analyses on Indonesia in the Medium Term Renewable Market Report, with the aim to include a special section on Indonesia.

- 5.4. The IEA and MEMR will work together to identify strategies and best practices to scale up deployment of wind and solar power, as well as distributed generation,in Indonesia to help support Indonesia's plans to reachthe 23% new and renewable energy target in the national energy mix by 2025.
- 5.5. MEMR and IEA will collaborate on research and development of ocean energy as well as other forms of renewable energy.

6. Energy Efficiency

- 6.1. The Policies and Measures (PAMs) databases house an inventory of policies and measures relating to energy efficiency, renewable energy and addressing climate change from IEA member countries and non-member countries. The IEA and MEMR will cooperate on sharing information biannually to include Indonesia's policies and measures in PAMs.
- 6.2. In 2015MEMR and the IEA agreed to increase their collaboration on energy efficiency policies and indicators. In 2016-2017, it is planned that the IEA and Indonesiawill collaborate on a work programme to prioritise and monitor progress of energy efficiency policies towards achieving policy objectives and national goals. The IEA and Indonesia will also collaborate on how to use impact assessments and evaluations to strengthen existing and future policy design and implementation.
- 6.3. MEMR and the IEA will work together on Indonesia's priority areas for energy efficiency policy, for example buildings, transport and industry.
- 6.4. The IEA will continue to invite Indonesia to participate in energy efficiency training courses within the broader IEA energy efficiency network.

7. Climate Change and Clean Energy Technology

- 7.1. The IEA and Indonesia will continue engagement through the Organisation for Economic Co-operation and Development (OECD)'s Climate Change Expert Group (CCXG) and the international climate change negotiation processes
- 7.2. The IEA and Indonesia will discuss opportunities to increase cooperation on energy technologies and energy technology roadmaps that could support Indonesia's objectives under its National Energy Policy.
- 7.3. IEA and Indonesia will discuss Indonesia's participation in the IEA's Energy Technology Perspectives (ETP) 2017 publication and the possibility of a dedicated chapter focused on various aspect of Indonesia's energy sector.
- 7.4. Indonesia and the IEA will continue to discuss energy technology cooperation, particularly Indonesian participation in the IEA's technology collaboration programmes (Implementing Agreements).
- 7.5. The IEA and Indonesia will continue to collaborate on policy and technical analysis to identify options, potential, and opportunities for the development of carbon capture and storage (CCS) globally and in Indonesia within the key work areas of the IEA's CCS Unit.

8. High-level visits

8.1. Building on previous high level visits and dialogues between the IEA and MEMR, the IEA and MEMR will continue this regular high-level dialogue and envisage a visit of the Executive Director to Indonesia in 2016. The IEA invited Indonesia to the IEA Ministerial in November 2015 and aims to invite Indonesia toother upcoming high-level dialogue meetings in 2016-2018.

9. Participation in other IEA structures

9.1. MEMR and the IEA agree that, subject to invitation, senior officials in MEMR will continue to participate annually as observers in at least one meeting of the IEA's Governing Board, and at least one meeting in each of the IEA's committees, Standing Groups and Working Parties. The focus of discussion between IEA Member Countries and MEMR will be on the critical issues of Indonesia's energy policy, energy security and data and statistics.

10. Review of the Joint Work Programme

- 10.1. The MEMR and the IEA agree to review this Joint Work Programme in the second half of 2017 and agree on the Work Programme for 2018-2019 according to the interests of both parties.
- 10.2. This Joint Work Programme shall take effect on the date of signature by both the IEA and MEMR and shall apply to the period 2016-2017.

Signed in 2 (two) original copies, both of them in the English language.

In Paris:

Date: November 17th, 2015

In Paris

Date: November 17th, 2015

Signed

Fatih Birol

Executive Director International Energy Agency Signed

Sudirman Said

Minister of Energy and Mineral Resources of the Republic of Indonesia