

# ASEAN-Australia Business Summit 2018

*CEO Forum consultation paper*

## Future Energy



This paper seeks your input to inform and prioritise discussion at the Future Energy roundtable at the ASEAN-Australia Business Summit CEO Forum in March 2018. CEOs will recommend actions to Australian and ASEAN Leaders to improve the trade and investment environment for the energy sector and identify areas for closer collaboration.

Please send your responses to [BusinessSummit@pmc.gov.au](mailto:BusinessSummit@pmc.gov.au) by 10 January 2018.

ASEAN is one of the world's fastest growing regions. Accompanying this economic dynamism has been a 70 per cent increase in energy demand since 2000 and there is still significant scope for further growth. While there are significant differences at the country level, as a group average, per capital demand is still half the world average.<sup>i</sup>

In the next two decades, several ASEAN countries will transition from net energy exporters to importers<sup>ii</sup>. In addition, many ASEAN countries require significant investment in transition and distribution networks and distributed energy systems. The International Energy Agency estimates the region has 65 million people without access to electricity (of those 95 per cent are in Cambodia, Myanmar, the Philippines and Indonesia), with millions more relying on sub-par connections. Australia and ASEAN both require significant investment in energy supply infrastructure and energy efficiency. The International Energy Agency estimates investment of up to US\$2.7 trillion in ASEAN may be required over the period to 2040.<sup>iii</sup> To date, Australian investment funds have shown greater interest in European and North American energy assets. Efforts to improve 'readiness for finance' in key ASEAN markets may attract more Australian funding.

Under the [ASEAN Plan of Action for Energy Cooperation \(APAEC\)](#), countries have agreed to key ASEAN energy initiatives, including:

- Establishment of an ASEAN power grid and a trans-ASEAN gas pipeline (as at 2015 a total of 13 bilateral gas pipeline interconnection projects connecting six countries have been commissioned)
- Promotion of coal and clean coal technology
- Reduction of energy intensity by 20 per cent in 2020 based on 2005 levels and an aspirational target to increase the component of renewable energy to 23 per cent by 2025 in ASEAN Energy Mix
- Regional energy policy and planning, and
- Building capability in policy, technology and regulation of nuclear energy.

Australia is also transitioning to a new energy future which may provide greater opportunities for ASEAN-Australia collaboration. Australia has ratified the Paris Agreement and defined its Nationally Determined Contribution as a 26 to 28 per cent reduction in greenhouse gas emissions below 2005 levels by 2030. Australia also has a national energy productivity target to accelerate a 40 per cent improvement in Australia's energy productivity by 2030. Australia has recently agreed many energy market reforms; and on 17 October 2017 the Australian Government proposed a new [National Energy Guarantee](#) (the Guarantee), comprising:

- a reliability guarantee to ensure sufficient dispatchable energy capacity is available (from sources such as coal, gas, pumped hydro and batteries); and
- an emissions guarantee to ensure Australia's electricity sector contributes to Australia's international emissions reduction commitments.
- The proposals require agreement with Australia's state and territory governments, who are also pursuing energy development and emission reduction policies.

## Opportunities for collaboration

Australia and ASEAN are well-matched to be key partners in meeting the shared challenge of energy security, affordability and environmental sustainability. The proximity of Australia and ASEAN, the shared focus on producing high quality energy exports and the growing demand in the region for new energy resources and technologies are all key drivers.

There are opportunities to expand research collaboration on new energy technologies and increase two-way investment to finance energy grid integration and unlock new energy reserves. There may be benefits in working together to improve public energy literacy and social licence, including for clean coal technologies and unconventional gas extraction. Australia and many ASEAN countries share the geographical feature of a dispersed population and the associated challenge of providing networked electricity. Micro-grids and distributed networks are another area in which Australia and ASEAN may seek to work more closely together.

Australia has abundant energy resources and is a net energy exporter. Crude petroleum and coal are two of Australia's top three merchandise exports to ASEAN, valued at A\$2.6 billion and A\$1.7 billion respectively in 2016<sup>iv</sup>.

ASEAN (primarily Indonesia and Vietnam) is a coal producing region and is currently expected to remain a swing supplier of coal until at least 2040<sup>v</sup>. Many ASEAN countries are natural gas producers (Indonesia, Malaysia, Thailand, Myanmar, Brunei and Vietnam). Singapore is a leading global energy hub as well as a growing hub for LNG trading. Like Australia, ASEAN is keen to remain an internationally competitive energy exporter through improved productivity and better technology use, including through big data.

Australia's coal exports to many ASEAN countries have increased steadily in recent years. Although from a low base, as countries such as Malaysia, Thailand and Vietnam are increasing coal based power generation. Many Australian energy and resources companies have a presence in ASEAN countries. ASEAN companies also have also a presence in coal mining and exploration in Australia.

**Questions:** How can Australia and ASEAN improve collaboration on advanced energy technologies including renewables, energy storage, smart grids and microgrids, demand response, energy efficiency and clean coal technology?

What measures could be put in place to facilitate greater two-way investment in energy projects across ASEAN and Australia?

ASEAN is already successfully using renewable energy. Renewable sources account for about 21 per cent of ASEAN's total electricity generation (2015), with hydropower the most significant (81 per cent of renewable total).

Australia is now experiencing a rapid uptake of both utility scale and distributed renewable generation with 23 per cent of generation expected to come from

renewable sources by 2020 (driven Australia's 2020 Renewable Energy Target) and 28 to 36 per cent by 2030 (Energy Security Board estimate if the Guarantee in place). Australia is currently developing systems approaches (such as the Guarantee) to optimize reliability, affordability and sustainability in the national electricity market – drawing on a range of technologies.

**Question:** What is the role for Australia in ASEAN's grid integration and aims to achieve universal electricity access? Are there opportunity for greater cooperation on micro-grids or distributed renewables? Are there opportunities for Australia to join ASEAN's grid integration?

Significant expertise and capability is being developed in both Australia and ASEAN countries on the creation of sustainable cities. The Australian Government's [Smart Cities Plan](#) is accelerating the deployment of clean energy, renewable energy and energy efficiency technology in cities. The [ASEAN Connectivity Master Plan 2025](#) calls for the creation of a sustainable cities network.

**Question:** How can Australia and ASEAN better share experiences, expertise and research on the development of sustainable cities?

Strong networks of specialised service providers and research institutions contribute to the energy sector's productivity and competitiveness in both ASEAN and Australia. . Australian and ASEAN SMEs are important participants in industry supply chains including in training, safety and environmental compliance, design and niche technologies. ASEAN is supporting small companies in supply chains through the [ASEAN Strategic Action Plan for SME Development 2016-2025](#). Australia's [Growth Centre network](#) works to ensure Australian firms can compete and grow in global value chains.

**Question:** What initiatives could be used to develop pathways and improve access for small and medium businesses, including women-owned businesses, in regional energy supply chains?

### Best Practice Reform

Australia is a high per capita energy user, with an energy system in transition that requires significant new investment and reform. ASEAN investors are already participants and have the capacity to invest further. Greater certainty in Australia's energy policy is likely to attract greater interest from ASEAN investment sources.

There are opportunities for Australia and ASEAN to share best practice on energy regulation and planning and to improving productivity through better data use, forecasting and inclusive workforce development.

**Question:** What are the most significant regulatory barriers to improving the trade and investment environment in the energy sector in Australia and ASEAN?

## About the ASEAN-Australia Business Summit CEO Forum

On 17-18 March 2018, the Prime Minister of Australia will host ASEAN Leaders in Sydney for the ASEAN-Australia Special Summit. A Business Summit and Counter-Terrorism Conference will report to Leaders on advancing business cooperation and combating the threat of terrorism.

On 17 March, the Business Summit CEO Forum will bring together senior figures of leading Southeast Asian and Australian companies. Participants will discuss areas for closer collaboration and economic integration in areas including agri-food supply chains, energy, skills, digital transformation, infrastructure, tourism destination development and aviation. Recommendations will be reported directly to Leaders during their Summit the following day.

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<sup>i</sup> International Energy Agency, [Southeast Asia Outlook 2017: World Energy Outlook Special Report](#)

<sup>ii</sup> ASEAN Centre for Energy (ACE), [The 5<sup>th</sup> ASEAN Energy Outlook 2015 - 2040](#)

<sup>iii</sup> International Energy Agency, Southeast Asia Outlook 2017: World Energy Outlook Special Report

<sup>iv</sup> [DFAT ASEAN 10 Fact Sheet](#)

<sup>v</sup> International Energy Agency, [Southeast Asia Outlook 2017: World Energy Outlook Special Report](#)