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**“Securing a Resilient and Sustainable Energy Future”
A Shared Path to Regional Prosperity through Collaboration &
Interconnections**

Introduction

1. Assalamualaikum and my warmest greetings to all officials and delegates present on this beautiful morning.
2. Thank you for inviting Sarawak to join the Singapore Energy Summit, and for honouring us with this opportunity to share Sarawak’s story with such a distinguished audience.
3. Energy resilience and sustainability is a long term, mutual objective that requires cross-country, multi-industrial collaboration.
4. Sarawak is uniquely positioned to do so in the ASEAN region.

Sarawak

5. As ASEAN’s prime mover for hydropower development, Sarawak has immense hydropower potential. Initial studies capped our estimated capacity at 20,000MW.
6. Further studies then narrowed down our most prospective hydropower sites to 12 locations with a potential of 8,000MW of which we have developed 3,452MW with another 1,285MW due to be commissioned by 2027.
7. The commissioning of our first hydropower plant - Batang Ai Hydroelectric Plant - in 1985 was an important milestone in our journey towards renewable energy and decarbonisation.
8. This was the first step towards building a more modern power system and the State Power Grid for Sarawak.
9. We are also blessed by an abundance of natural energy resources in the form of oil and gas, as well as coal.

Sarawak's Energy Development

10. In order to fulfil our commitment to lower carbon emissions and decrease our reliance on fossil fuels, Sarawak has ambitiously aligned our Post COVID-19 Development Strategy to expand on our initial strategic economic blueprint under the Sarawak Corridor of Renewable Energy or SCORE launched in 2008.
11. That was when we began to strategically harness hydropower potential for rapid socio-economic growth. This transformed Sarawak's energy landscape.
12. Our generation mix has successfully transitioned from 92% fossil fuels in 2010 to 70% hydropower by 2015, complemented by thermal resources for energy security.
13. This shift has decarbonised our grid emission intensity by 72% between 2010 and 2020 and continues to drive our sustainable socio-economic growth in the present day.
14. Our renewable hydropower will be among the main engines for achieving the climate goal of a transition from CO₂-producing electricity generation to carbon-free generation.
15. The lower levelized cost of energy from renewable hydropower also benefits Sarawak's domestic, industrial, and export customers by supplying them with affordable, reliable, and sustainable electricity – in fact, the most competitive in the region.
16. Through our wholly state-owned utilities company Sarawak Energy, I am proud to say that Sarawak currently offers the lowest average unsubsidised tariffs in Southeast Asia and our electricity is primarily green.
17. As Malaysia's largest renewable energy provider, Sarawak can play a key role in accelerating the region's energy transition by working together with our neighbours by sharing our resources.
18. Sarawak's Growth Agenda supports a Resilient and Sustainable Energy Future for a Common Regional Prosperity.
19. Our present decisions will have major implications for future generations, whose ability to lead prosperous, healthy lives depends on what we do today.

20. The global movement towards decarbonisation and energy transition are particularly important for ASEAN, as even the best-case scenario still indicates that all of us will face the effects of climate change to some degree.
21. The science behind IPCC Report 2022 is unequivocal – Climate change endangers the well-being of people and the planet. Delayed action will trigger the impacts of climate change so catastrophic that our world will become unrecognizable.
22. The next few years is critical to realize a sustainable, livable future for all. Changing course will require immediate, ambitious and concerted efforts to slash emissions, build resilience, and conserve ecosystems.
23. In this regard, Sarawak prioritises environmental sustainability, aligning our development path with the United Nations Sustainable Development Goals and pursuing balanced economic growth by managing our natural resources in a measured, responsible way.
24. We recently formed the Ministry for Energy and Environmental Sustainability to advance Sarawak’s Green Energy Agenda forward.
25. We are developing the Sustainable Sarawak Blueprint to achieve sustainability goals by addressing concerns related to biodiversity conservation, natural resource management, climate change mitigation and creation of an enabling environment with modern infrastructure in tandem with Malaysia’s Fourth Industrial Revolution.
26. We have developed a Kuching Smart City Master Plan that is considering low carbon mobility and smart city infrastructure for Sarawak’s capital city.
27. We have plans to develop similar smart city master plans for other urban areas in Sarawak that balance environmental sustainability and urbanisation.
28. Of particular relevance to this forum is our focus on establishing Sarawak as a regional hub and powerhouse for renewable energy through power export. We are also exploring opportunities for low-carbon hydrogen production to develop a hydrogen economy.
29. By 2030, Sarawak plans to achieve three targets:

- a. Maintain at least 60% renewable energy capacity mix, with renewable hydropower at its core and an increase in alternative renewable energy resources.
- b. Reduce CO2 emissions by 600,000 tons per annum by electrifying Sarawak's mobility fleet.
- c. Achieve more than 15% income from foreign markets, which includes pursuing power exports.

Renewable Energy for a Resilient and Sustainable Energy Future

30. The COVID-19 pandemic was a challenging time for all of us. Economies worldwide went into recession and we all experienced disruptions to the market and global supply chain. This continues to be a challenge, even as we work to bounce back.
31. In 2020, ASEAN's GDP and Total Primary Energy Supply declined by 7.1% and 5.3% respectively.
32. Sarawak experienced a similar decline during 2020, with our GDP contracting by 6.8% and energy demand dipping.
33. The ongoing geopolitical tension between Russia and Ukraine has only served to intensify supply chain disruptions – dampening the pace of global economic recovery.
34. The energy sector's revival has been hampered by these disruptions.
35. The rise in crude oil prices – going from 70.89 USD in 2021 to 110 USD in 2022 per barrel – has put additional pressure on economies that are dependent on fossil fuels for growth, although for us in Sarawak, our status as an oil and gas producer provides a buffer.
36. In contrast, renewables demonstrated resiliency and growth during the pandemic and continue to play a key role in driving green and sustainable economic recovery.
37. Renewable energy's share in ASEAN's Total Primary Energy Supply rose by 0.7% in 2020 based on the report ofr Impact on Energy Sector Development in the Southeast Asia Region.

38. Based on last year's ASEAN Power Updates Report, around 82% of new capacity in ASEAN was renewable in 2020.
39. We were largely shielded from all of this as a result of the predominance of hydropower in our generation mix, with indigenous thermal resources providing added stability and security.
40. To further accelerate Sarawak's Green Energy Agenda, I am proud to announce that Sarawak is the first in the region to generate power from wind.
41. We are witnessing progressive growth in wind industry, beginning with technical innovation that includes advancement and sophistication of instruments and materials to transform wind to electricity.

ASEAN's Growth and Energy Demand

42. With a population that is close to 700 million and growing prosperity, ASEAN is a burgeoning economic force on the world stage.
43. Based on the ASEAN Centre of Energy's '6th ASEAN Energy Outlook' report, the region had a combined GDP of 7.12 trillion USD in 2017 which is projected to nearly triple by 2040.
44. Accommodating such growth while balancing the trilemma of affordable, reliable and sustainable energy supply is a challenge given the disparity in resources and where we are in the development curve.
45. We have observed that countries within ASEAN are re-examining and driving their own energy transitions as part of the global climate action in addressing the energy trilemma.
46. However, to truly succeed, we must work together collaboratively across all stakeholder groups so we can achieve a resilient and sustainable energy future for ASEAN.

Development of Alternatives

47. Leveraging on renewable hydropower has allowed us to explore green hydrogen production and utility scale floating solar, and embark on research into microalgae for carbon capture, utilisation and storage or CCUS.

48. In 2017, Sarawak embarked on research into green hydrogen production under our Green Energy Agenda with the aim of decarbonising and greening our transport system and transitioning to a low carbon economy.
49. Sarawak Energy spearheaded this pilot research project which led to the construction and commissioning of our Hydrogen Production Plant & Refuelling Station in 2019.
50. It is the first facility of its kind in Southeast Asia and provides refuelling services for three hydrogen buses, currently serving as public transport in Sarawak's capital city of Kuching.
51. Sarawak is intensively analysing the plant's performance to optimise hydrogen production operations and enhance our technical know-how regarding this novel technology, especially in a tropical context.
52. Hydrogen has wide applications in our existing industries and can be exported in various forms and via different methods.
53. It will play a central role in the further greening of Sarawak's industries, transportation sector and healthcare in the future.
54. Given favourable global demand conditions and sufficient resource availability, Sarawak can be a pioneer in the future global supply chain – as we were previously with the liquefied natural gas business in the 1980s.
55. In the next several years, we plan to develop six multi-fuel stations in Sarawak that cater to vehicles powered by standard fossil fuels, electricity, and hydrogen.
56. We have also partnered with global players from South Korea to develop an environmentally friendly hydrogen and ammonia plant in Bintulu. Once completed, the plant will produce 7,000 metric tonnes of hydrogen in addition to various forms of ammonia for local industries and South Korea.
57. Hydrogen modules have also been recently introduced at Sarawakian universities, which will equip our future engineers with the necessary knowledge to thrive in the hydrogen industry going forward.
58. This is supplemented by various research programmes and projects with companies like Airbus and various Japanese firms to test hydrogen's applications in our daily lives.

59. As the scale of hydrogen expands, associated costs will continue to drop, which will be yet another game changer for Sarawak's economic landscape. As such, it is important for Sarawak to become a first mover in hydrogen usage.
60. Sarawak Economic Development Corporation (SEDC) and Sarawak Energy are actively building partnerships to expand local knowledge of hydrogen related technologies within our state and exploring the commercial production of green hydrogen as well as the viability of its associated value chain in Asia.
61. Coordinated international cooperation to scale up hydrogen will not only assist us in the implementation of our green energy agenda, but a global hydrogen one as well.
62. Sarawak is also exploring Sustainable Aviation Fuel (SAF) by way of Cultivation and Harvesting of Microalgae for the purpose of extracting crude algae oils for biofuels. SEDC Energy is working with Petronas who has done extensive research in micro algae and there are strains of micro-algae, technology in cultivation and processing, which have been found suitable for producing this biofuel.

Partnership for Goals

63. As we continue moving forward, we will align ourselves and collectively commit to balancing benefits for people and the planet in pursuit of shared prosperity.
64. Only by accounting for all three aspects of energy sustainability, reliability and affordability, will we be able to meet our sustainability and energy resilience goals for a prosperous and equitable, socially inclusive future.
65. Sarawak is enthusiastic to work with like-minded organisations who are similarly committed to a resilient and sustainable energy future for ASEAN and the world at large.
66. We must collectively balance our current and future energy demand with sustainability principles, within the context of the threat of climate change, as today's stewards of our planet and as neighbours within ASEAN.

67. Events like this summit and the greater Singapore International Energy Week are important platforms to drive this forward, as we can hold important conversations and identify opportunities for shared action.
68. Thank you once again for inviting us to share our story here in Singapore, our friend and neighbour, with whom we have built strong and lasting bridges through investments, knowledge sharing and exploration of opportunities.
69. In Sarawak, our Sustainability and Renewable Energy Forum or SAREF provides a similar platform - to bring the conversation and create opportunities for collaboration in the region.
70. Thank you.