MINISTRY OF ENERGY TRANSITION
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Energy Transition towards Net Zero: Challenges and Opportunities

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Bismillahirrahmanirrahim,

(Salutations)

Assalamualaikum Warahmatullahi Wabarakatuh and Salam Malaysia Madani,

WELCOME REMARKS

1. Alhamdulillah, it is an honour to deliver the keynote address at the Asia Pacific Business Forum (APBF) 2025. I understand that this esteemed Forum, sponsored by the UN, unites business leaders, government officials, and diverse stakeholders to deliberate on sustainable development strategies. Organized biennially by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), this forum plays a pivotal role in fostering public-private sector dialogue within the region. Its core mission is to explore the roles and necessities of business in realizing inclusive, resilient, and sustainable development goals.

   Ladies and Gentlemen,

2. I am truly honoured to address you today on a topic of paramount importance: our shared journey toward achieving net-zero emissions. The global energy transition is not merely a necessity but a pressing imperative. Malaysia, alongside the broader Asia Pacific region, finds itself at a critical juncture in this transformative process. In my address today, I aim to explore the multifaceted challenges we encounter, the promising opportunities that lie ahead, and how regional collaboration, particularly through initiatives like the Asia Pacific Green Deal, can expedite our collective progress.

The Imperative for Energy Transition

3. Our world is grappling with the stark realities of climate change, manifested in increasingly frequent and severe extreme weather events, alarming sea-level rise, and the accelerating loss of biodiversity. The scientific consensus is irrefutable: to limit global warming to the critical threshold of 1.5°C, we must achieve net-zero carbon emissions by 2050. Given that energy production and consumption account for approximately 75% of global greenhouse gas emissions, decarbonizing this sector is of utmost importance.

4. For Malaysia, the stakes are particularly high. As a nation endowed with substantial fossil fuel resources, the transition toward renewable energy presents both a complex challenge

and a significant opportunity. Historically, our energy mix has been heavily reliant on coal and natural gas. However, the government's firm commitment to increasing the share of renewables to 31% by 2025 and 40% by 2035 signifies a decisive shift in our energy strategy.

5. The introduction of key policy documents such as the National Energy Policy 2022-2040 and the Hydrogen Economy and Technology Roadmap further underscores Malaysia's ambition to emerge as a regional leader in clean energy innovation and deployment. These policies are complemented by initiatives promoting energy efficiency, such as industrial energy audits and incentives for green building technologies, ensuring a holistic approach to energy transition.

Challenges in the Energy Transition

6. Despite the progress we have made, Malaysia faces several critical challenges that must be addressed to ensure a just and effective energy transition:
   a) **Dependence on Fossil Fuels:** Malaysia's economic growth has historically been intertwined with the extraction and utilization of oil, gas, and coal. The delicate balancing act of phasing out fossil fuel subsidies while simultaneously ensuring energy security requires careful planning and execution. This includes diversifying energy

sources and implementing social safety nets to mitigate potential economic impacts on vulnerable populations.

b) **Investment in Clean Energy Infrastructure:** The deployment of large-scale renewable energy projects, such as solar farms and hydroelectric facilities, necessitates substantial capital investments. Mobilizing private sector investment, attracting international funding, and establishing innovative financing mechanisms are crucial to bridge the investment gap. Public-private partnerships, green bonds, and blended finance models can play a significant role in channelling funds toward sustainable energy projects.

c) **Grid Modernization and Energy Storage:** The intermittent nature of renewable energy sources like solar and wind poses challenges to grid stability and reliability. Strengthening our power grid through smart grid technologies, advanced transmission infrastructure, and robust energy management systems is essential. Furthermore, investing in energy storage solutions, such as battery storage, pumped hydro storage, and thermal energy storage, is critical to ensure a continuous and reliable supply of clean energy.

d) **Talent and Workforce Readiness:** The transition to a green economy demands a skilled workforce equipped with the knowledge and expertise to develop, deploy, and maintain clean energy technologies. Reskilling and upskilling programs, vocational training initiatives, and partnerships with educational institutions are necessary to prepare the workforce for emerging industries such as hydrogen energy, carbon capture technologies, and sustainable transportation.

Opportunities in the Energy Transition

7. While the challenges are considerable, the opportunities presented by the energy transition are even more compelling. Malaysia and the broader Asia Pacific region possess vast potential to emerge as global leaders in the clean energy revolution:

a) **Renewable Energy Expansion**: With abundant sunlight, strategic geographical locations, and strong political will, Malaysia is well-positioned to become a solar powerhouse. Furthermore, the country has significant potential for biomass energy, and hydropower development. The successful implementation of floating solar farms and large-scale solar projects across the country demonstrates our capabilities in harnessing clean energy resources.

b) **Hydrogen Economy and Carbon Capture**: Malaysia's strategic investments in green hydrogen production and carbon capture technologies offer new avenues for energy exports, regional collaboration, and industrial decarbonization. Green hydrogen, produced from renewable energy sources, can serve as a clean fuel for transportation, power generation, and industrial processes. Carbon capture technologies can help reduce emissions from existing industrial facilities and create opportunities for carbon sequestration and utilization.

c) **Job Creation and Economic Growth**: The clean energy transition is expected to generate thousands of new jobs in sustainable industries, ranging from renewable energy installation and maintenance to green technology research and development. These new job opportunities can drive economic growth, enhance competitiveness, and improve the livelihoods of communities across the country.

d) **Regional Collaboration through the Asia Pacific Green Deal**: The Asia Pacific Green Deal serves as a comprehensive blueprint for sustainable growth, with a strong emphasis on clean energy investments, technology transfer, and climate resilience. Malaysia's active participation in this regional framework will foster enhanced energy cooperation, knowledge sharing, and

sustainable financing models, thereby accelerating the energy transition across the region.

The Asia Pacific Green Deal and Its Importance

8. The Asia Pacific Green Deal is a transformative strategy designed to steer the region towards a low-carbon, sustainable future. It is built on principles of reducing emissions, investing in renewable energy, fostering innovation, and promoting a circular economy. By adopting a holistic approach that integrates economic development with environmental responsibility, the Green Deal provides a roadmap for nations to align their energy policies with global climate commitments.

9. For the Green Deal to become a reality, nations in the Asia Pacific must work collectively by sharing best practices, investing in clean technologies, and developing regional carbon markets. Countries like Malaysia, Indonesia, and Vietnam can leverage their renewable energy potential to create cross-border energy trade systems, while developed nations in the region, such as Japan and Australia, can support capacity-building and technological advancements. Furthermore, stronger public-private partnerships and international cooperation are essential to secure the necessary funding and expertise to accelerate this transition.

Malaysia as ASEAN Chair: A Catalyst for Regional Energy Transition and Sustainability

10. As Malaysia assumes the ASEAN Chairmanship, we are committed to elevating ASEAN's role in the global energy transition by fostering stronger regional integration, innovation, and investment in clean energy. The Asia Pacific Green Deal (APG) serves as a guiding framework to drive cross-border cooperation, optimize renewable energy (RE) resources, and position ASEAN as a globally visible and competitive leader in sustainability.

11. With Malaysia at the helm, ASEAN will intensify efforts to bridge boundaries through coordinated energy initiatives, leveraging collective strengths to build a resilient, interconnected energy ecosystem. Through strategic meetings, policy dialogues, and multi-sectoral partnerships, Malaysia will lead ASEAN in developing collaborative solutions that balance economic growth with environmental responsibility.

Strengthening the ASEAN Power Grid: A Unified Energy Future

12. A key priority under Malaysia's leadership is the expansion of the ASEAN Power Grid (APG)—a vision to interconnect

ASEAN's electricity networks, enabling seamless energy exchange and optimizing the use of renewable resources across member states. By accelerating grid modernization, strengthening transmission infrastructure, and harmonizing regulatory frameworks, we can unlock vast opportunities for cross-border RE trade, reduce reliance on fossil fuels, and enhance regional energy security.

13. Malaysia will spearhead discussions on green financing models, attracting investments for large-scale solar, wind, and hydro projects that will power ASEAN's industries and communities. By facilitating public-private partnerships (PPPs) and innovative financing mechanisms, we aim to make ASEAN a leading destination for sustainable energy investments.

Positioning Malaysia as ASEAN's Clean Energy and Innovation Hub

14. With its strategic location, strong RE capabilities, and commitment to innovation, Malaysia is well-positioned to become ASEAN's epicentre for clean energy research, technology deployment, and sustainable financing. As ASEAN Chair, Malaysia will:

- Promote Malaysia as the regional focal point for green hydrogen development, facilitating research collaborations

and infrastructure investments to establish a competitive hydrogen economy.

- Attract multinational corporations and energy leaders to invest in ASEAN's clean energy sector, leveraging Malaysia's expertise in solar power, energy storage, and carbon capture.
- Advance digitalization and smart energy solutions, integrating AI and IoT into energy systems for efficiency, cost reduction, and improved grid reliability.

15. Through these initiatives, Malaysia will ensure that ASEAN remains at the forefront of global green technology advancements, supporting a sustainable and inclusive economic transformation.

Enhancing ASEAN's Global Influence in the Green Economy

16. Under Malaysia's chairmanship, ASEAN will not only strengthen internal collaboration but also amplify its voice in global sustainability forums. Malaysia will lead ASEAN's engagement with the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the Asian Development Bank (ADB), the International Renewable Energy Agency (IRENA), and other global stakeholders to advocate for:

- Increased access to climate financing for ASEAN's clean energy transition.
- Technology transfer and capacity-building programs, enabling ASEAN nations to adopt cutting-edge sustainability solutions.
- Greater integration of ASEAN economies into global carbon markets, ensuring competitiveness in a net-zero future.

A Vision for a Sustainable ASEAN

17. As ASEAN Chair, Malaysia envisions a region that is energy-secure, economically resilient, and environmentally sustainable. Through strategic collaboration, investment mobilization, and policy leadership, we will accelerate ASEAN's transition to a low-carbon future, unlocking new opportunities for growth, innovation, and shared prosperity.

18. This is a defining moment for ASEAN. By working together, leveraging our strengths, and embracing bold climate action, we can transform our region into a beacon of sustainable development, shaping a greener, more inclusive future for generations to come.

19. As Malaysia and the Asia Pacific move towards a greener future, we must embrace bold policies, foster international cooperation, and harness the power of innovation.

Governments, businesses, and civil society must work together to drive this transformation.

20. Achieving net zero is not just about cutting emissions—it is about building a more resilient, sustainable, and inclusive economy. The energy transition represents a once-in-a-generation opportunity to redefine our future. Let us seize this moment, act with urgency, and turn challenges into lasting solutions for generations to come.

    Thank you.