Summary of the Chair, Minister Ibrahim Baylan, Sweden, of the 2017 IEA Ministerial Meeting, 7-8 November 2017

The 2017 IEA Ministerial meeting, held under the heading of Bolstering Energy Security for Sustainable Global Growth, was chaired by Mr. Ibrahim Baylan, Minister for Policy Coordination and Energy, Sweden, on 7-8 November 2017 in Paris.

An unprecedented number of Ministers from the 29 IEA Members as well as the 10 Accession, Association and Partner country Ministers were in attendance, as were some 30 top business executives from the IEA Energy Business Council (EBC). During the Opening Reception, Ministers enthusiastically welcomed Mexico as the next and 30th member of the IEA.

An overarching sentiment of the Ministerial was that energy transitions are driving forces for increased economic growth, enhancing energy security, promoting robust and resilient energy systems as well as benefiting local environmental and global climate objectives.

On future endeavours of the IEA, Ministers and business executives alike reiterated their strong recognition that the energy sector contributes two-thirds of global greenhouse gas emissions, and that energy sector policies and energy innovation have a critical role to play in combatting climate change. In achieving these ambitions, the prominence of the IEA as the world's leading source of authoritative energy analysis, data and statistics, and a platform for effective international collaboration on global energy challenges was underscored.

Ministers and CEO's highlighted and welcomed the remarkable progress made by the IEA under the leadership of Executive Director Fatih Birol since the 2015 IEA Ministerial against all three of the IEA's modernisation pillars: (i) enhanced engagement with major emerging economies, including with Mexico Accession and Association Partnerships with Brazil, China, India, Indonesia, Morocco, Singapore and Thailand; (ii) strengthened and broadened commitment to energy security to help members respond to the emerging challenges of the 21stcentury; and (iii) enhanced role as the global clean energy hub, including being designated host of the Clean Energy Ministerial Secretariat. To this end, Ministers reaffirmed their continued strong support for the Executive Director as he leads efforts to further modernise the IEA.

A major takeaway from the meeting, and in relation to the side-event on Women in Clean Energy through the newly established Technology Collaboration Programme (TCP) on Clean Energy, Education and Empowerment, was the importance of diversity and gender equality for the appropriate future representation and securing the competence for the long-term development of the energy sector.

Held during a time of global energy security developments, participants reaffirmed energy security as core to the IEA's mission and committed to continue to work to promote secure, affordable, efficient and sustainable energy systems; noted that a broader interpretation of energy security is relevant as significant and positive technology changes make sound policy and regulatory design essential to address new energy security challenges.

A key highlight of discussions was the IEA's unique positioning as the only organisation that covers the full energy mix, enabling a holistic perspective on developments and their

implications at a time when the global energy system is transforming rapidly, with implications both in the medium and long term on energy security.

Ministers affirmed that the IEA's oil emergency policy is critical, as is compliance with the stockholding obligation. Ministers requested that the Secretariat together with member countries conduct an assessment of the improvement potential of the emergency oil stockholding requirement.

Ministers also requested the Secretariat to intensify its ongoing efforts to facilitate closer engagement with partner countries on oil emergency issues. These efforts should take into account the developments of the oil market since the IEA's inception and likely future developments, and will be reported back to the Governing Board and the 2019 Ministerial.

Observations were made that natural gas has a growing role in the world's energy mix and is important for maintaining electricity security and flexibility as well as for improving air quality. At the same time, it was noted that the rise of liquefied natural gas (LNG) is globalising natural gas markets.

To this end, Ministers welcomed the progress in the gas security work since the last Ministerial meeting and asked the Secretariat to further contribute to enhancing global gas security by improving transparency, encouraging more flexibility, and supporting greater resilience in the global gas/LNG markets.

As the role of electricity in the world economy expands, the cost and security risks of a large-scale disruption increase. While IEA countries have been able to achieve a very high degree of system reliability, established methods for ensuring security of electricity supply may be less well suited to the challenges of the 21stcentury.

Ministers therefore recognised the vital importance of electricity security and asked the Secretariat to continue analysing this area, building upon existing programs. This work should focus on policy and market design strategies in the areas of distributed energy resources, geographic integration of power systems, dispatchable generation, storage, demand-side measures, and system integration of renewables.

Ministers endorsed further strengthening the IEA's role as the global clean energy hub, including its focus on technology, policy, and market design, with an overall goal to enhance analytical tools to assist members, partners, and the private sector in the design and practical execution of their respective efforts, in accordance with national circumstances, to advance toward a clean energy future. The work should be carried out in a manner that addresses environmental concerns; improves energy security; and promotes economic growth, jobs and affordability, all while maximising efficiencies and partnerships with other international organisations and efforts.

At the Ministerial meeting's first day on 7 November 2017, Ministers applauded the launch of the IEA Clean Energy Transitions Programme and participating Members' commitments to more fully leverage IEA capabilities to help those governments whose energy policies will significantly impact the speed of, and prospects for, a global transition toward more sustainable energy use, including reductions in greenhouse gas emissions in line with the objectives of the Paris Agreement.

Moreover, Ministers commended the IEA's enhanced, broadened engagement on energy efficiency through expanded analysis and policy support; and inauguration of the IEA's new Global Exchange Platform for Energy Efficiency. Ministers mandate the Secretariat to continue to strengthen its work on energy efficiency across all sectors globally, in the context of IEA's global hub role.

In the light of this work, there was strong encouragement for further strengthening the IEA's encompassing work on energy efficiency, including via the G20 initiative for the establishment of an International Energy Efficiency Hub as a Special Activity within the IEA, in collaboration with the IPEEC.

As regards technology development and innovation, Ministers urged enhancement of the IEA's Energy Technology Network by endorsing the IEA Medium-Term Strategy for Energy Research and Technology 2018-2022, strengthening the Technology Collaboration Programmes to accelerate shared innovation priorities, working with public and private stakeholders to develop an ambitious second phase of the IEA Technology Roadmaps, improving the Tracking Clean Energy Progress effort, and supporting Mission Innovation to strengthen public and private investment in new clean and sustainable energy technologies, reduce their costs, and make them widely affordable and market ready.

Looking across the entire energy system, participants also recognised the major importance of heating and cooling in developing an economical, secure and sustainable energy sector, and that further efforts are warranted to accelerate market-based, technology-neutral and customer-driven transitions towards sustainable heating and cooling as well as integrated energy systems.

Ministers reaffirmed the growing significance of key emerging economies in global energy supply and demand, and welcome the progress made since 2015 in "opening the doors" of the IEA, in particular through the Association initiative with Brazil, China, India, Indonesia, Morocco, Singapore and Thailand. The IEA family of countries, comprising IEA members, Association countries and Accession countries now accounts for over 70% of global energy consumption.

Moreover, Ministers welcomed the progress achieved in deepening and expanding the Association initiative since its launch at the IEA Ministerial in 2015; recognised, in particular, the development of comprehensive joint work programmes with Association countries, covering key issues of mutual interest including energy security, data and statistics, energy policy analysis, and support for the growing use of clean energy; and supported the increased engagement of Association countries in a wide range of IEA activities including committees, publications coverage and launches, and technical assistance.

Ministers acknowledged that emerging economies have a range of expectations for future cooperation with the IEA based on their respective energy sector priorities; recognised the importance of establishing a mutually satisfactory balance of rights and responsibilities for cooperation, which meets the ambitions of all members of the IEA family and is supported with a firm and sustainable resource base; and in view of these considerations, called upon the Secretariat to strengthen the Association process, and to analyse options for further development of institutional ties, including potential paths to eventual IEA membership. After discussions during the Government-Industry Dialogue, Ministers emphasised the importance of a close dialogue with industry to enhance the reliability, sustainability and affordability of the global energy system. Ministers encouraged the Secretariat to continue to work closely with a wide range of businesses on emerging areas of mutual interest, including investments, innovation, new financing mechanisms and business models, digitalisation, and clean technologies.

On this aspect in particular, Ministers welcomed the IEA's first global study of Digitalization and Energy, and asked the Secretariat to further deepen its analysis of this important topic and its implications for energy security, sustainability and economic growth in a manner that is complementary and additive to other efforts by such groups as the OECD, G7 and G20; and various TCPs, including the International Smart Grid Action Network (ISGAN).

In order to secure a sustainable path for the IEA, Ministers also welcomed the aim to consider all possible elements and sources of financing in the most efficient and sensible way while fully maintaining and improving the decision making processes for Members.

As an international body in a global energy landscape, emphasis was put on highlighting the IEA's active role, supporting G7, G20 and close cooperation with other international and regional bodies and processes.

Furthermore, Ministers' discussions focused on the ongoing success of the IEA in adapting to the significant changes to the global energy landscape in the decades since its establishment, and the need to support and position the IEA with a continued ability to effectively achieve its objectives in light of the dynamic evolution of global energy markets.

With this as its chief objective, Ministers welcomed, in the interest of continuity and stability for the continued modernisation of the IEA, the Executive Director's availability to serve a second mandate, and encouraged a decision on his re-election to be taken as soon as practically possible after the Ministerial.