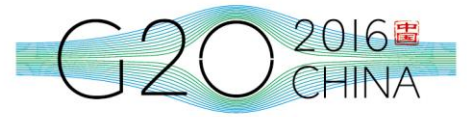


G20 ENERGY MINISTERIAL MEETING BEIJING COMMUNIQUÉ

(Final Version)



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We, the G20 Energy Ministers, met in Beijing, People's Republic of China on 29-30 June 2016 to follow through on outcomes agreed at the Antalya G20 Summit in 2015. Reflecting previous G20 discussions on energy, particularly the G20 Principles on Energy Collaboration agreed in 2014, the outcomes of the first G20 Energy Ministerial Meeting in 2015, recognizing the importance of "Transforming our world: the 2030 Agenda for Sustainable Development" by United Nations General Assembly and the Paris Agreement under the UNFCCC (United Nations Framework Convention on Climate Change) adopted by the 21st session of the Conference of the Parties in 2015, we reaffirm the importance of energy collaboration within and beyond G20 countries for tackling common energy challenges and shaping a sustainable low GHG emission energy future, while utilizing energy sources and technologies. We make this commitment respecting specific needs and unique circumstance of each member. We welcome progress made under the Chinese presidency to address issues including energy access, cleaner energy future, energy efficiency, global energy architecture, inefficient fossil fuel subsidies that encourage wasteful consumption, energy security, as well as market transparency, and commit to take action in these areas. We welcome the three action plans, including *Enhancing Energy Access in Asia and the Pacific: Key Challenges and G20 Voluntary Collaboration Action Plan*, *G20 Voluntary Action Plan on Renewable Energy*, and *G20 Energy Efficiency Leading Programme (EELP)*.

Energy Access

We recognize energy access as a crucial factor to achieving a better quality of life, overcoming poverty and improving global economic growth. We reiterate our commitment to take joint action, in line with the UN 2030 Agenda for Sustainable Development, and in particular Sustainable Development Goals (SDG)-Goal 7, to ensure universal access to affordable, reliable, and sustainable and modern energy for all. We want to build on G20 Leaders endorsement of the G20

Energy Access Action Plan: Voluntary Collaboration on Energy Access in 2015 by expanding our focus beyond Sub-Saharan Africa to include the Asia-Pacific region, where about 500 million people still do not have access to electricity.

As a roadmap for achieving these objectives, we adopt the *Enhancing Energy Access in Asia and the Pacific: Key Challenges and G20 Voluntary Collaboration Action Plan*, which acknowledges investment, financing, innovation, building institutional capacity, and ensuring market viability of the new projects as key challenges to achieve universal energy access in the Asia-Pacific, and that technological options will need to be tailored to utilizing all indigenous available sources. We also encourage G20 and other countries to concentrate their efforts in disadvantaged communities and regions where large proportions of the population are without electricity and in areas with the most acute problems of access to modern energy for all, where the impact will be most significant.

G20 members noted there is a range of options to improve energy access, including, but not limited to, voluntary financial support, building enabling environments, public sector support, community participation, decentralized energy system, grid expansion programs, capacity development, regional interconnection, coordinated country support and innovative business models as appropriate to the existing specific planning and specific needs of each country.

We acknowledge the need for action in the cooking energy sector across Sub-Saharan Africa and the Asia-Pacific region, by promotion of clean cooking technologies. We will work together with SE4All and its Asia-Pacific and African hubs, and with other relevant international, regional and national institutions in the Asia-Pacific region and the African region; and commit to working jointly on a voluntary basis towards implementation of both G20 Action Plans by strengthening ongoing initiatives, and cooperating and collaborating on capacity development for policy formulation to increase investment and financing for energy access in both regions, taking into consideration national needs and context.

Cleaner Energy Future

We encourage members to explore clean energy production and consumption models appropriate to

their own circumstances and, in light of the changes in the regional and global energy landscape and the needs of sustainable energy development, while at the same time fostering economic growth. We recognize various forms of energy used by G20 members, including renewable energy, natural gas and nuclear power for those countries which opt to use it, and advanced and cleaner fossil fuel technologies as meaningful options for countries with diverse energy realities.

Renewable Energy

We emphasize the significant role of renewable energy in context of the UN 2030 SDG goals and Paris Agreement from COP21. We adopt the ***G20 Voluntary Action Plan on Renewable Energy*** and will continue to implement the ***G20 Toolkit of Voluntary Options on Renewable Energy Deployment*** agreed by G20 Energy Ministers in Istanbul. We encourage members to develop energy strategies, including renewable energy development, taking account of their respective situations, and to propose action plans to fulfill their energy strategies. We encourage members to facilitate investment in renewable energy production and use through reducing barriers and risks, taking full consideration of the available indigenous renewable energy sources, increasing substantially the share of renewable energy in the global energy mix, in line with SDG-Goal 7.

We acknowledge that continued cost reduction of renewable technologies and power system integration of variable renewables are key challenges. We G20 members will endeavor to reduce the deployment costs of renewable energy through in-depth cooperation on knowledge sharing, capacity building, technology transfer, financial innovation and pilot projects. We note the important role of government in supporting power sector evolution and energy system integration, and we promote technical development and deployment of energy storage, electric vehicles and modern bioenergy, including second generation and other advanced biofuels, and renewable heating. Smart grids can facilitate reducing emissions and enhance resilience of electricity systems, and therefore we encourage cooperation on standards to accelerate smart grid deployment and interoperability.

Nuclear Power

For countries which opt to use nuclear energy, it contributes to the reduction of GHG emissions. We call upon all countries that opt to use nuclear power to ensure the highest standards of nuclear safety, security and nonproliferation including an independent and effective regulator, and to exchange their expertise and experiences. In addition it is important to engage the public in science-based dialogue and transparency to inform policymaking.

Natural Gas

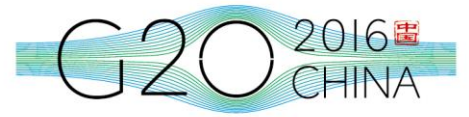
We note the results of the G20 Natural Gas Day. We recognize that natural gas can be a less emission intensive fossil fuel, and can play an important and effective role in moving towards a low GHG emission energy future. We note that natural gas has become an integral part of global energy supply and we will endeavor to improve the functioning, transparency and competitiveness of gas markets, with a strategic view of the gas supply chain including LNG at the global level. Many countries intend to expand the utilization of natural gas in transportation, distributed energy, or power generation, as well as to enhance gas trading. We will enhance collaboration on solutions that promote natural gas extraction, transportation, and processing in a manner that minimizes environmental impacts.

Advanced and Cleaner Fossil Fuel Technologies

We affirm the importance of using the best available technologies and practices in order to address the environmental impacts, including GHG emissions, of the production, transport and consumption of fossil fuels. And we encourage countries to enhance cooperation in developing and applying best available technologies.

Energy Efficiency

We recognize that energy efficiency, including energy conservation, is a long-term priority for G20.



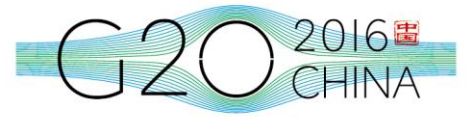
Improving energy efficiency brings social, economic, environmental and other benefits, and plays a key role in shaping a sustainable future.

We adopt the *G20 Energy Efficiency Leading Programme (EELP)*, and agree to take the lead in promoting energy efficiency. We agree to take action by adhering to the Voluntary Pillars for Energy Efficiency Cooperation, which are "mutually beneficial, innovative, inclusive, and sharing". We commit to significantly improve energy efficiency in the G20, through greater energy efficiency cooperation and by encouraging G20 members to develop active energy efficiency programs, policies and measures based on the specific needs and national circumstances of each member. In order to strengthen the global voice for energy efficiency, G20 members support IPEEC working with the IEA and other international organizations, including IEF, OPEC, OECD, APEC, BRICS, SE4All and C2E2, and with stakeholders, and we will explore the feasibility of innovative collaborative arrangements for international cooperation on energy efficiency.

We welcome the significant progress in voluntary international collaboration coordinated by IPEEC in the six key areas of Vehicles, particularly heavy-duty vehicles, Networked Devices, Finance, Buildings, Industrial processes (Industrial energy management), and Electricity Generation. We recognize the particular opportunity provided by voluntary collaboration on heavy-duty vehicles, as well as upscaling of energy efficiency investment and other workstreams. We encourage interested countries to strengthen this collaboration and to participate actively in the additional key areas outlined in the *EELP*, which are Best Available Technologies and Practices ('TOP TENS'), Super-efficient Equipment and Appliances Deployment initiative ('SEAD'), District Energy Systems ('DES'), Energy Efficiency Knowledge Sharing Framework, and Energy End-Use-Data and Energy Efficiency Metrics. We welcome the active participation of non-G20 countries in all key areas of energy efficiency collaboration.

Global Energy Architecture

We share a common understanding that the global energy architecture needs to continue to evolve to reflect better the changing realities of the world energy landscape. We recognize the contribution of G20 countries to sustaining discussions on critical global energy issues, their roles in fostering



collaboration to address global energy challenges and their effectiveness in facilitating collaboration among a variety of international organizations. We welcome G20 energy meetings' collaboration with international organizations and their efforts to expand engagement with non-members.

Energy Security

We emphasize the need for sustainable energy security and our commitment to the improvement and enhancement of energy security through cooperation and dialogue on issues such as emergency response measures. We stress the importance of diversification of energy sources and routes and of efficient, flexible and competitive markets. We stress that continued investment in energy projects remains critically important for ensuring future energy security and preventing economically destabilizing price spikes. We resolve to ensure those investments contribute to our sustainable energy security.

Inefficient Fossil Fuel Subsidies that Encourage Wasteful Consumption

In the light of the commitment in 2009 and beyond to rationalize and phase out over the medium term inefficient fossil fuel subsidies that encourage wasteful consumption, while providing targeted support for the poorest, we welcome significant progress made to date by a number of G20 countries, and we will endeavor to make further progress in moving forward this commitment which was agreed by our Leaders in 2009. And we look forward to the upcoming results of US-China voluntary peer reviews which could provide a useful way to share experiences on both theoretical and practical ways of rationalizing and phasing out inefficient fossil fuel subsidies that encourage wasteful consumption. We also welcome peer review processes that will be carried out in Germany, Mexico and Indonesia. We encourage more G20 countries to participate in peer reviews.

Market Transparency

We believe transparent markets are a critical prerequisite for energy security and encouraging investment. To promote market transparency and efficiency, we commit to further strengthen the Joint Organisations Data Initiative (JODI) by encouraging and facilitating the collection and dissemination of high quality energy data, and promoting the visibility of the initiative, as well as enhancing support for capacity building. We welcome the cooperation among the IEF, OPEC and IEA, on energy outlooks and encourage them to continue with their fruitful collaboration on market transparency and on the interaction between physical and financial markets. Building on the IOSCO Principles for Price Reporting Agencies, we note the importance of remaining vigilant on the integrity and transparency of market price formation. We also acknowledge the importance of publication of timely and high-quality market-related information on all energy resources.

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We will present this Communiqué to the G20 Hangzhou Summit for our leaders' consideration and agree to continue and build on these results and develop them further during the German G20 Presidency in 2017.