

Communiqué of the 2009 Meeting of the IEA Governing Board at Ministerial Level

1. During this time of economic uncertainty, volatile energy prices and heightened concern for the global environment, we, the 28 Member countries of the International Energy Agency (IEA) and the European Commission, confirm our utmost determination to ensure a smooth transition to a low-carbon economy and a more secure, sustainable and cleaner energy future as soon as possible.
2. As we mark the 35th anniversary of the IEA's founding, the need for a new way forward is undeniable. IEA scenarios show that global demand for fossil fuels will continue to rise, even while the circle of producing countries becomes ever tighter. This could increase our countries' susceptibility to energy supply disruptions, high and volatile energy prices and repeated economic crises. Even worse, it raises the spectre of increased emissions of greenhouse gases and dangerous climate change. We agree that we need to act now to combat climate change if we are to avoid the devastating effects both for our citizens and for the world, particularly poor and developing countries. Such efforts can also contribute to economic growth, technological advancement and innovation, energy security and access to energy for the poor.
3. In these challenging times, we must work ever more closely with our international partners in order to achieve our shared goals. We welcome China, India and Russia to our meeting and welcome the joint statements their representatives concluded with Executive Director Tanaka of the IEA Secretariat. These joint statements with our partner countries reflect our common interest in working together to enhance energy security and efficiency, encourage economic development, address climate change, and ensure open, transparent and efficient energy markets.

A Cleaner Energy Future

4. The key messages that were presented during this meeting from the *World Energy Outlook 2009* (WEO) provide new and useful analytical insights for the critical climate negotiations in Copenhagen. These messages both provide caution and offer considerable possibilities for action. The WEO suggests that while the current global trends are unsustainable, there are energy futures available to keep the global temperature rise below two degrees Celsius above pre-industrial levels.
5. We underline our commitment to international efforts to combat dangerous climate change and welcome the Major Economies Forum (MEF) recognition of the scientific view that the increase in global average temperature above pre-industrial levels ought not to exceed two degrees Celsius. We call upon the 2009 UN Climate Conference in Copenhagen (COP 15) to reach an ambitious agreement involving all nations which can deliver tangible results to steer the world towards a clean and secure energy future.
6. We note that the costs of inaction are higher than the costs of action and that IEA scenarios show that emissions must begin dramatically declining within the next ten to fifteen years. In this regard, we are willing to share with all countries the goal of achieving at least a 50 percent reduction of global emissions by 2050 and recognise that this implies that global emissions need to peak as soon as possible and decline thereafter. As part of this, we also acknowledge the goal, as stated in the Leaders' Declaration of the G8 L'Aquila Summit, to

reduce developed countries' collective emissions of greenhouse gases in aggregate by 80 percent or more by 2050 compared to 1990 or more recent years.

7. We note that most of the actions to mitigate climate change need to take place in the energy sector which accounts for over 60 percent of global greenhouse gas emissions. As ministers with the responsibility for energy, we commit ourselves to lead and support in every way efforts to create low-carbon growth. We agree that the IEA Secretariat should continue to make its objective data and impartial analysis available to all parties involved in climate negotiations.
8. International efforts to improve energy efficiency and accelerate research, development and deployment of a wide spectrum of low-carbon technologies are essential. We recognise the IEA contribution on identifying best practices and priorities in these areas. The IEA should strengthen its work on energy efficiency and renewable energy statistics and indicators and continue developing roadmaps for energy efficiency, renewable and other low-carbon technologies to support a transition to a low-carbon and energy secure economy. We also ask the IEA to develop its proposals to create a low-carbon energy technology platform in concert with other countries and relevant international organisations so that IEA Member countries can lead and support efforts to accelerate the development and spread of such technologies. In turn, we agree more effort should be made to increase substantially public-sector investments in research, development and demonstration of these technologies, with a view to doubling such investments by 2015. We call upon the private sector to increase its investment in these areas as well.
9. Recognising that every country must determine its own energy mix, fossil fuels will likely continue to provide a very large share of the energy used throughout the world for many years. In this context, countries should work to increase the efficiency with which they use fossil fuels, switch to lower emitting fuels, such as natural gas, wherever practical, and accelerate their efforts to develop carbon capture and storage (CCS) technologies. We welcome the recently published IEA *CCS Roadmap* which suggests that greater efforts are needed to demonstrate CCS at scale before 2020 in developed and emerging economies, wherever possible. Renewables and nuclear power provide other important alternatives for many countries. Our governments will work towards ambitious objectives for energy efficiency and renewable energy in order to provide clear signals for private sector investments.

A More Secure Energy Future

10. Energy security remains our paramount goal and we confirm that well-functioning, transparent energy markets and adequate investment in diverse energy sources are the best ways to assure it. We note that policies to improve energy efficiency and promote low-carbon technologies improve energy security as well as reduce emissions.
11. We recognise that a wide range of emergency measures, including, where feasible, expanded use of storage in countries heavily dependent on imports, are necessary to withstand sudden, severe supply disruptions. We applaud the IEA's work to maintain our vital oil emergency response capability, and ask the Secretariat to explore further ways to involve non-Member stockholding countries in the coordination of future releases from strategic petroleum reserves. Noting that natural gas and electricity supplies are critical to our economies, we resolve to implement recommendations as listed in paragraph 14 of the Action Plan to improve gas security. The IEA can play a strong role in helping Member countries improve their preparedness for possible gas supply disruptions, and can propose coordinated actions in case of an emergency, when appropriate.

12. We reconfirm our commitment to working with our partners in the Joint Oil Data Initiative (JODI) to improve transparency through further data exchanges and by broadening JODI to include data on natural gas and to explore the possibility to extend JODI to oil and gas investment plans and reserves.
13. Recognising the negative impact of extreme price volatility on our economies, we encourage the Secretariat to continue work on understanding the impact of physical, financial and policy factors on oil prices. In this regard, we invite the IEA to continue studying the size and effects of energy subsidies. We note that the G20 have called upon relevant regulators to also collect related data on over-the-counter oil markets and to take steps to combat market manipulation leading to excessive price volatility. We invite the Secretariat to examine how market distortions can feed price volatility. Developing a clearer picture of current and future trends in oil markets will reduce uncertainty and we call for further efforts by the IEA to engage with other energy-related organisations and processes to exchange information to produce more accurate demand and supply outlooks. We also ask the Secretariat to enhance its cooperation with international organisations and its engagement with market regulators to understand more thoroughly the risks posed by potential market developments.

The Critical Need for Investment

14. The transformation of the world energy sector calls for huge investments in new capital stock, especially low-carbon technologies, advanced power plants of all types, transmission facilities, smart grids, and energy-efficient equipment and appliances. We are concerned by the impact of the economic crisis on investment in the energy sector, and particularly investment in low-carbon technologies, including renewable sources of energy. To avoid this, the current economic crisis should be used as an opportunity to invest in a cleaner, more secure energy future.
15. Recognising that investment shortfalls could have severe consequences for energy security, long-term economic growth, and the fight against climate change, our governments have launched programmes to provide economic stimuli that collectively amount to \$1.8 trillion, or 4.5 percent of 2008 GDP, with 10 percent of this spending on average directed at developing and deploying low-carbon energy technologies and improving energy efficiency. We note that according to the *World Energy Outlook 2009* 450ppm scenario, this investment represents an important down-payment on the massive investment required to transform our energy systems in line with IEA proposals for green growth.
16. As the private sector traditionally accounts for the vast bulk of energy investments, strong public-private partnerships are essential to overcome the global energy challenges we face. We welcome the establishment of the Energy Business Council (EBC) and invite this executive-level group to work closely with the IEA Secretariat. We commit to develop long-term frameworks, based on free markets, clear and transparent regulation, and the reduction of non-financial barriers, including complex approval processes. Where appropriate, governments should direct stimulus money to projects, particularly in energy efficiency and low-carbon technologies, that address energy and climate challenges. We welcome the Pittsburgh Summit conclusion to phase out inefficient fossil fuel subsidies over the medium term. Inefficient fossil fuel subsidies encourage wasteful consumption, reduce our energy security, impede investment in low-carbon energy sources and undermine efforts to deal with the threat of climate change. An ambitious Copenhagen agreement would also provide impetus to investment in low-carbon energy technologies by providing clarity on targets and future policies.

A World-Wide Collective Endeavour

17. To respond to the pressing global challenges of climate change and rising energy demand and to secure a more prosperous and sustainable energy future, the IEA and its Member countries are striving to enhance international cooperation. Together, IEA Member countries and their partner countries are already addressing many of the pressing energy challenges discussed at this meeting.
18. With this in mind, we ask the IEA Secretariat to expand the training and workshops it offers to partner countries in order to bolster their capacity to formulate sound energy policy. This will help enhance access to energy and alleviate energy poverty, especially in Africa and Asia. The IEA shall continue to address energy poverty in developing countries, building on its existing skills, knowledge and experience in the global energy field. The new IEA Training and Capacity Building Programme demonstrates that the IEA is serious in its desire to engage with partner countries and that the IEA is accessible for them. We also ask the IEA Secretariat to convene, during 2010, senior officials from IEA Member countries and a select range of other countries and international organisations, including today's guests, to discuss an international partnership on energy and sustainability. In this regard, enhanced coordination with regional bodies, such as APEC and the African Union would be fruitful.
19. We note the recent creation of a range of new international energy institutions to further our common energy goals. We are pleased that the IEA will soon host the secretariat of the International Partnership for Energy Efficiency Cooperation (IPEEC) and that IPEEC will benefit from the IEA's work on global energy efficiency and energy management. We welcome the founding of the International Renewable Energy Agency (IRENA) and the Global Carbon Capture and Storage Institute (GCCSI) and invite these two new bodies to work closely with the IEA in order to pursue synergies. We welcome and support the Secretariat's engagement with the IEF Expert Group established following the Jeddah and London Energy meetings. We also congratulate the Carbon Sequestration Leadership Forum (CSLF) for its contribution to furthering CCS, including through its recent Ministerial meeting, and encourage its fruitful collaboration with the IEA.

Conclusion

20. We, the ministers for energy from the Member countries of the IEA, believe that urgent action is needed to ensure a transition to a low-carbon economy and a more secure, cleaner and sustainable energy future. We will cooperate to make this transition as swift as possible and commit ourselves to implement fully and expeditiously the Copenhagen COP 15 outcomes in our respective areas of responsibility. Enhanced cooperation and broader dialogue with countries outside the IEA will help to make a strong contribution to a more secure, cleaner and sustainable energy future. We are aware that without public acceptance, it will be even harder to realise these ambitions. We commit ourselves to communicate the importance of a climate-friendly energy future to our publics and seek their support.
21. We approve the Action Plan annexed to this statement and welcome the Joint Statements with China, India and Russia.

Action Plan of the 2009 Meeting of the IEA Governing Board at Ministerial Level

1. We, the Ministers from the Member countries of the International Energy Agency, believe that urgent action is needed to ensure a transition to a low-carbon economy and a more secure, cleaner and sustainable energy future. We have therefore agreed as follows.

Supporting Climate Talks and Promoting Energy Efficiency and Low-Carbon Energy Technology for a Secure and Sustainable Future

2. We ask the IEA Secretariat to support the goals of the UN Framework Convention on Climate Change (UNFCCC) by:
 - assessing policy measures to limit increases in global temperatures by curbing greenhouse-gas emissions from the energy sector (including policies on CO₂ pricing, emissions trading systems, sectoral approaches, accelerated development and global deployment of low-CO₂ emitting technologies; and improving energy efficiency);
 - helping to promulgate best practices for developing least-cost and effective climate-friendly energy policy packages;
 - continuing to provide accurate data, objective analysis and sound advice as the world's energy expert for use in UNFCCC and other international climate policy discussions;
 - exploring areas for international co-operation and collaboration on climate-related energy policies, including energy-efficient and low-carbon energy systems and technology research, development and deployment, with both developing countries and the private sector; and
 - compiling baseline data of national and international low-carbon energy RD&D programmes, to facilitate RD&D cooperation and coordination and identify gaps in international efforts to accelerate the spread of such technologies.
3. To promote **energy efficiency**, we will:
 - work with governmental authorities at all levels within our countries to ensure a co-ordinated, efficient approach to promoting energy efficiency;
 - close policy gaps by maximising implementation of the IEA's 25 energy efficiency recommendations, or taking equally effective alternative measures appropriate for national circumstances;
 - provide, annually, end-use data and statistics needed for developing energy efficiency indicators based on the template developed by the IEA in concert with international experts; and
 - through the IEA, work closely with the International Partnership for Energy Efficiency Cooperation (IPEEC), whose secretariat is hosted by the IEA.
4. We welcome IEA involvement in the recently launched Global Fuel Economy Initiative, which aims to achieve a 50 percent reduction in car energy use per kilometre world-wide by 2050 compared to 2005, and in the Global Energy Efficiency Action Initiative, which was recommended by the G8 meeting in L'Aquila to achieve maximum implementation of energy efficiency world-wide. To help us promote greater energy efficiency, we further invite the IEA to:
 - assist IEA Member countries and IEA non-Member countries, as appropriate, with development and implementation of prioritised national energy efficiency policies in light of the recent country progress reports on energy efficiency and as requested;

- encourage and facilitate the adoption of cost-effective energy-efficient technologies in our countries and internationally;
 - monitor and report on our efforts to implement policies and remove barriers to energy efficiency measures in all sectors of the economy; and
 - continue to strengthen data collection by applying international standards for measurement methodologies in energy-intensive sectors, such as those of the International Standards Organisation (ISO); and
 - develop energy efficiency indicators to monitor energy efficiency progress, in co-operation with Member and non-Member countries, international organisations, and industrial associations.
5. Recognising that each country will choose the mix of technologies most appropriate to its national circumstances, we are committed to accelerating the world-wide transition to **low-carbon energy technologies** and recognise that greater international co-operation is essential to achieve this goal. In this regard, we welcome proposals to accelerate the development and world-wide deployment of low-carbon energy technologies, including through the development of an international platform for technology development, with public-private advisory groups (e.g. by sector and region) incorporated as appropriate. We pledge to play a full and active role in this process and look forward to close collaboration among the IEA, a select range of other countries and international organisations and initiatives, such as the UNFCCC and the Major Economies Forum.
6. We also commit to:
- support IEA roadmaps for the most important innovative energy technologies;
 - undertake more efforts to accelerate public investments in research, development and demonstration (RD&D) with a view to doubling cost effectively RD&D investment in low-carbon energy technologies by 2015; and call upon the private sector to increase its investment in these areas as well;
 - play a full and active role in achieving an effective outcome on technology matters during COP 15.
7. Recognising that current electricity networks require great improvement in energy efficiency and their ability to integrate with key low-carbon technologies such as renewable energy and plug-in vehicles, we are committed to transition to smart grids, which will enable electricity networks to be more accessible, reliable, flexible and economic. We commit to work in partnership to define collaboration areas to remove barriers to accelerate the deployment of smart grids. We ask the IEA to recognise also the potential of smart grids as key low-carbon technology infrastructure, support in developing the roadmap to deploy smart grids and monitor and provide guidance on the efforts to take the plan forward.
8. To hasten the development and spread of other low-carbon energy technologies, we ask the IEA to:
- continue its work on developing technology roadmaps, to evaluate and report on world-wide progress in using these roadmaps and to work with Member and non-Member countries, international organisations and the business community to maximise implementation;
 - enhance its engagement with developing countries on energy technology issues, including through work on the low-carbon energy technology platform, and in the IEA Network on Expertise in Energy Technology (Implementing Agreements);
 - continue to track developments in public and private sector investment in RD&D for low-carbon and energy efficient technologies and assess the potential contribution of these technologies to climate and energy security goals; and

- provide advice, including in its publication Energy Technology Perspectives 2010 and the low-carbon energy technology platform, on how best to overcome the main barriers to the development, demonstration and deployment of low-carbon energy technologies.
 - report on Member countries' progress regarding energy investment particularly in energy efficiency and low-carbon technologies at our next Ministerial meeting in 2011.
9. Recognising that **renewable energy** must and will increase dramatically so that it plays a leading role in mitigating climate change and enhancing energy security, we commit to maximise our efforts to promote the deployment of renewable technologies domestically as well as internationally, as appropriate for local conditions. In support of these goals we ask the IEA, in collaboration with IRENA where appropriate, to:
- continue engaging with developing countries to build capacity and in support of their efforts to develop policies to promote the deployment of appropriate renewable technologies within their territory;
 - continue its work to create roadmaps, including country-specific roadmaps, for renewable energy sources of all types and
 - monitor our efforts to implement policies and remove barriers to promote renewable energy in all sectors of the economy with a specific focus on developing a common understanding of the key factors required to achieve successful and cost-effective large-scale deployment of these vital energy options.
10. We also support the IEA's plans to expand work on CCS and welcome the creation of the Global CCS Institute (GCCSI). We will:
- ahead of the 2010 G8 Leaders' Summit in Canada, continue to support projects and to identify new sources of funding that help fulfil the G8 commitment of launching 20 large-scale demonstration projects globally by 2010;
 - support implementation of the IEA CCS roadmap which suggests that greater efforts are needed to demonstrate CCS at scale world-wide before 2020;
 - work to develop and harmonise CCS regulatory policies when practicable; and
 - support the work of, and encourage co-operation and co-ordination between, the CSLF and the GCCSI, and the IEA;
 - support the IEA's plan to track and report on global progress in fulfilling the above-mentioned commitments.
11. We recognise that measures to improve the energy efficiency of new and existing fossil-fuel-based power plants are also important in reducing the carbon footprint. To encourage uptake of such measures, we ask that the IEA continue to work jointly with other organisations to monitor the operating efficiency and reliability of fossil fuel power plants and to promote best practice for their technology and operation.
12. We recognise that, in those countries where it is acceptable, **nuclear power** can contribute significantly to curbing greenhouse gas emissions and benefit energy security, as a carbon-free power source. We note IEA cooperation with the Nuclear Energy Agency (NEA) to develop roadmaps for advanced third generation and fourth generation **nuclear power** plants with special attention to the associated proliferation and waste challenges. The IEA will also co-operate with other international organisations such as the International Atomic Energy Agency and the NEA in order to identify additional areas where it can contribute, including by studying the role of nuclear energy in international frameworks.

Achieving Comprehensive Energy Security and Strengthening Data Transparency

13. Stable policies, well-functioning markets (including diversified and competitive supplies) adequate investment and technological innovation are needed to ensure the security of supply of all forms of energy. Building on our decisions at the 2007 Ministerial, the IEA should extend its monitoring and emergency response capabilities for oil to other forms of energy, particularly to natural gas and, in support of this effort, to take steps to further improve international energy data transparency.
14. With respect to energy security and emergency response capabilities for natural gas, we agreed:
 - to highlight the importance of well-functioning, flexible markets as the best way to assure security of supply, with emergency measures as a clearly-defined last resort. Such emergency measures could draw on those from oil markets, recognising the differences between oil and gas markets and infrastructure;
 - that each IEA Member country should review its gas market and gas security policies and, depending on their individual country circumstances, improve individual emergency preparedness through adoption of actions drawn from a menu of possible measures; and
 - to endorse a role for the IEA to monitor progress in gas market and gas security policy of its Member countries, to include natural gas disruption scenarios as a part of IEA emergency response exercises and reviews, and to encourage collective approaches where appropriate to market circumstances, in the European context in close co-operation with the EU.
15. In this respect, we ask that the IEA:
 - provide advice and expertise to governments in the field of gas policy and assist in their respective elaboration and implementation of a gas strategy and plans in order to enhance long-term security of supply as well as emergency preparedness, including by conducting exercises and reviews;
 - design rules and procedures for approval by the Governing Board by which - as a last resort - the obligation to hold oil emergency stocks could be temporarily lowered on a country-by-country basis, to contribute to mitigating severe negative impacts of a gas disruption on the oil markets of those countries;
 - continue to explore and discuss the development of gas market and emergency policies with relevant institutions, including the European Commission, as well as with the European Union Member states;
 - respond to requests from groups of IEA Member countries to facilitate regional co-ordinated actions during natural gas supply disruptions;
 - expand its analysis of gas markets and security of supply and develop further ideas to meet natural gas disruptions;
 - collaborate with major gas-producing countries to enhance long-term market-based investment transparency and development of global markets; and
 - report back on the progress achieved at our next Ministerial meeting in 2011.
16. Recognising the importance of **transparency** for avoiding price volatility and promoting efficient markets, as well as for designing and implementing strategies to cope with market disruptions, we commit to improve the quality and timeliness of data submitted by our governments to the IEA, and through it to JODI and other organisations. The IEA will work with JODI partners to ensure the collection of natural gas data for all countries, emphasising first the completeness of data in terms of global coverage and then considering JODI current timelines. We will also work to harmonise definitions and methodologies for the data we collect and to support efforts to develop more and better statistics to address emerging policy issues.

17. We ask the IEA, as the world's most authoritative source for energy statistics, policy and market analysis, to:

- draw from the Global Energy Security Principles agreed by the G8 at St. Petersburg to continue work to deepen concepts of energy security, such as by identifying quantifiable indicators for assessing energy security;
- strengthen ongoing work on energy price formation, in co-ordination with OPEC and the International Energy Forum, to improve our understanding of the sources of price volatility; and, with regard to financial market factors, increase its engagement with the IMF and market regulators;
- continue to monitor the global, medium-term balance of supply and demand, raising awareness of potential difficulties should current trends of lower investment in energy supply continue and lead to a shortage of capacity;
- discuss long-term electricity plans and policies with Member countries and with other relevant international institutions and initiate a study of electricity security, including the impact of integrating significant amounts of electricity from variable sources, such as wind and ocean, into electrical power grids over the short to medium term, identifying what steps could be taken to strengthen countries' policies and abilities to respond successfully to supply disruptions of any kind;
- build on and expand further its co-operation on energy statistics with other organisations and with key non-Member producer and consumer countries to increase transparency; and
- build on its previous work and conduct a comprehensive study on the size and effects of energy subsidies.

Enhancing Cooperation and Broadening Dialogue with Key Partner Countries

18. We agree to **enhance co-operation and broaden dialogue** with our international partners in order to:

- broaden participation in IEA activities, including emergency response measures;
- improve the scope, reliability and timeliness of international energy data;
- accelerate the development and spread of low-carbon technologies and energy efficiency policies; and
- share views on best practice in policymaking, on co-ordinating global policies and on common issues and challenges, including energy security and climate change.

19. In view of these goals, in addition to the above requests involving partner countries, we ask the IEA to:

- encourage increased and regular participation of representatives from partner countries in IEA activities, including its informal workshops, seminars and other events, as well as formal Committee meetings and the extensive IEA network of energy technology co-operation activities;
- expand its emergency response activities with key energy-importing partner countries, including through Emergency Response Exercises (ERE) modelled after the first ERE for a partner country held in Thailand last May, and the exploration of mechanisms to enable interested partner countries with strategic stocks to co-ordinate stock releases with IEA Member countries during oil market disruptions;
- strengthen its work with other countries, regional and international organisations to harmonise and enhance data quality and coverage world-wide;
- consider convening occasional meetings of its Standing Committees, including the Governing Board, in interested partner countries;

- convene an international partnership meeting on energy and sustainability during the latter half of 2010 comprising senior officials from IEA Member countries and a select range of other countries, including China, Russia and India, and international organisations to discuss ways to improve international energy partnership, e.g., by co-ordinating IEA and other country responses to future oil market disruptions, and to develop strategies for addressing the investment and technology challenges of a transitioning energy sector;
- broaden the contribution of IEA expertise on energy policy, through analysis, advice and the sharing of best practice, to deliver access to affordable and sustainable energy for poorer communities in developing countries, with an initial emphasis on capacity building to identify and deploy suitable low cost renewable energy and energy efficiency technologies in African countries; and
- and enhance and formalise training that the IEA has long offered to officials from partner countries through the creation of a dedicated training and capacity building programme, cooperating with regional organisations such as, but not limited to, APEC, African Union, ASEAN, the Energy Community as appropriate.