MARIA VAN DER HOEVEN

Executive Director of the International Energy Agency

Thank you very much, Cécile. I will use my 10 to 15 minutes to talk about energy and competiveness and that will be based on some of the key findings in our latest World Energy Outlook, which is of course the 2013 outlook. Our starting point is the global energy sector in transition with some of the traditional roles, or perhaps one could call them job descriptions, attached to different countries being switched around. Some longstanding importers are looking to export – for instance, the United States – and some traditional exporters are among the most conspicuous sources of energy consumption, like the Middle East. We will see unconventional oil and gas supply, the growth of renewables and how they are transforming our understanding of the distribution of global energy resources.

However, not everything is changing. Yes, we have seen some encouraging signs, particularly on energy efficiency with some new policies, but energy-related CO_2 emissions continue to rise at a rate that risks a disastrous warming of our planet, and that is a process that continues to be pushed in some countries by subsidised fossil fuel prices that encourage wasteful consumption. At this moment still one in every five people on Earth lack access to modern energy services and two out of every five continue to use traditional biomass for cooking. Therefore, as you mentioned, Christophe, policymakers everywhere face these tough challenges when they try to reconcile or to balance the energy dilemma. Economic growth, energy security, climate priorities and environmental policies really go together. You cannot separate them. I fully agree with Christophe.

We have seen a third year of oil prices averaging about USD 100 a barrel. That makes it more difficult. As I will mention later, there are wide regional divergences in gas and electricity prices and they are adding to the pressure in higher-priced countries, notably Europe and parts of the Asia-Pacific region. That means that they focus attention on the links between energy and the wider economic outlook.

Now, turning to our projections, the big picture is that global energy demands will increase by one-third over the period to 2035. By 2035 there will be around 8.5 billion or maybe even 9 billion people on this planet and all of these people want to have a switch to turn on the lights and all these people want something to be transported, so whatever you think about it there will be an increase of one-third in the period to 2035. Countries from the OCD only make a marginal contribution to this growth, just 4%. As to the remainder, by far the largest share comes from the emerging economies in Asia. For the next decade the main driver of this growth is China, which is already the largest energy-consuming country in the world, but the pace of growth for China's energy demands will slow and in the 2020s we expect the emphasis to shift south to India and to the countries of southeast Asia as the principal sources of energy demand growth.

What about the Middle East? The Middle East reinforces its status as a major energy-consuming region accounting for almost 10% of global demand growth but with only 3% of the world's population. We expect gas consumption in the Middle East to overtake that of the European Union by 2020 and there are still the subsidised prices. They will help oil demand to grow to 10 million barrels a day in 2035. 10 million barrels a day, dear friends, is exactly the same level as China's oil consumption today.

Moving on to our main topic of discussion today, a major feature of current energy debates around the world is the role of energy and economic competitiveness. Gas and electricity price differentials between major regions has always been a fact of life. They were a feature of the economic landscape, but they have become more pronounced over the last 10 years and a key reason for this has been the boom in shale gas production in the United States, where natural gas prices have fallen sharply, putting downward pressure on electricity prices. Today natural gas prices in the United States are about one-third of export prices to Europe and one-fifth of those to Japan. In our outlook regional differences in natural gas prices narrow but nonetheless remain large through to 2035, and that means that electricity price differentials are also large with industrial consumers in Japan and Europe, paying on average more than twice as much for their electricity as their counterparts in the United States. Even Chinese industrial consumers pay almost

double the US level. Through to 2035 these electricity price differentials persist, so what we see today is not a one-off. It reflects a structural issue.

Worldwide energy accounts on average for more than one-tenth of total production costs in only a handful of industrial sectors and this includes labour and capital. In many other industrial sectors it is less than one-tenth of their total production costs. However, energy costs can be vital to the competitiveness of our energy-intensive industries, particularly where energy accounts for a significant share of total production costs and where the resulting goods are traded extensively. Energy-intensive sectors such as chemical, primary aluminium, cement, iron and steel, pulp and paper, glass, glass products and refining account globally for 20% of industrial value-added, for 25% of industrial employment and 70% of industrial energy use. Energy costs are the greatest in the chemicals industry, including the petrochemical subsector, where they can represent around 80% of total production costs

Lower gas and electricity prices in 2012 in the United States relative to Europe equated to estimated savings of close to USD 130 billion for the entire US manufacturing industry. The question is what this might mean for national and regional economic competitiveness. We found that in many emerging economies, particularly in Asia, strong growth in domestic demand for energy-intensive goods supports a swift rise in their production, accompanied by an expansion of exports. And in the United States relatively low energy costs also help to generate an increase in its share of global exports of energy-intensive goods in the period to 2035. By contrast, the European Union and Japan, both with relatively high energy costs, see sharp declines of minus 10% and minus 3% respectively from current levels, although the EU will remain the largest leading exporter of energy-intensive goods through to 2035. However, all of this together suggests that at least among the OCD economies energy price variations have the clear potential to influence investment decisions and company strategies in this sector.

What can be done? Policymakers do have ways to reduce the impact of high prices on all sectors of the economy by promoting more efficient, competitive and interconnected energy markets and efficiency policies have a particular role to play because in our view high energy prices do not have to mean high energy costs if you use the energy more efficiently. At the global level we can see that the industrial sector is responsible for 37% of all energy savings in one of our new policy scenarios relative to the current policy scenarios, followed by transport at 31% and buildings at 26%. The majority of efficiency-related energy savings in industry arise in light industries as the result of policies focused on energy audits, energy management systems and financial incentives, particularly for the small- and medium-sized ones. In transport the main approach is the tightening or the introduction of fuel economy standards and in buildings. It is a mix of policy measures consisting of measures targeting the building's shell and efficiency standards for lighting, appliances and heating systems. In the iron and steel sectors energy savings can be achieved in three ways: adopting more efficient technologies, optimising management systems and through process changes. All of these things together will be very helpful, but should it not be possible to find ways to compensate for most of the relative energy price disparities it would be advisable for policymakers not to impede the economic restructuring that is necessary to shift energy competitiveness because that would be, in our view, a very, very ill-advised thing to do, and that is to put it mildly.

Let us go back to gas because another element with the potential to reduce differentials between regional gas prices is the movement towards a global gas market in which prices could be set. It would be set more by the interplay of gas supply and demand and less by indexation to oil. The key arena where this transition, battle or fight, remains to play out is the Asia-Pacific region and export of liquefied natural gas from North America can act as a catalyst for these changes. The economic case for energy export from the United States at wholesale is strong even if the margin available to exporters is expected to fall by the time that the first export projects begin operation in the latter part of this decade, and the availability of this new source of energy supply could loosen the current rigidity of energy-contracting structures. If this comes together with gas market reforms in the Asia-Pacific region that encourage the development of more competitive markets and gas trading then this could accelerate a shift in the way that gas is priced in favour of indices beyond or in addition to oil indexation and the result would be to bring the differences in gas prices between regions down to the cost of moving gas between them, with the largest potential impact on price levels in the Asia-Pacific region.

This has been done before. It has happened in Europe where now, because of the new supplies, a hybrid pricing mechanism exists. The question of course is would this mean a single global gas price, a gas price that is the same

for everyone, as is largely the case for oil? No, no, forget about that. Importers would still have different import prices based on their geographical proximity to sources of supply and an exporter, like the United States, would still retain a substantial edge in terms of natural gas prices compared with gas-importing regions because of the large cost of liquefaction, shipping and regasification.

A quoi ressemblera le monde de l'énergie en 2035 ? Différents scénarios et études de cas nous montrent différentes versions de ce à quoi pourrait ressembler le monde de l'énergie dans le futur. Tout dépendra bien sûr des choix politiques qui seront faits car différentes politiques énergétiques conduiront à différents résultats. Cela signifie – et je suis entièrement d'accord avec ce qu'a dit Christophe – que c'est aux décideurs politiques de changer les choses non seulement pour maintenant mais aussi pour ce qui se passera à l'horizon de 2035, il faut qu'il y ait une prise de conscience à ce sujet. La domination de l'Asie en termes de demande énergétique mondiale va se confirmer et l'Asie sera clairement le centre du commerce mondial de l'énergie. Cela ne fait aucun doute. Ceci étant dit, les marchés de l'énergie seront bien plus interconnectés avec les réseaux commerciaux qu'ils ne le sont aujourd'hui. La plupart des incertitudes actuelles liées à la production de pétrole et de gaz non conventionnels seront dissipées et la part des énergies renouvelables dans le mix énergétique mondiale sera plus importante et fermement établie. Ou bien le monde sera en bonne voie pour surmonter la menace d'un changement climatique catastrophique, ou bien il sera de plus en plus convaincu de sa réalité parla fréquence et la magnitude accrues des événements climatiques extrêmes. Quelle sera la fin de l'histoire ? Cela dépend des choix que nous allons faire aujourd'hui.

Avant de terminer, je souhaiterais vous soumettre quelques éléments de réflexion. Les variations des prix de l'énergie affectent la compétitivité industrielle, influençant les décisions d'investissement et les stratégies des entreprises dans les industries grandes consommatrices d'énergie et les décideurs politiques sont préoccupés par les coûts énergétiques, c'est donc l'occasion ou jamais de réexaminer l'efficacité de certaines politiques énergétiques. Les pays peuvent atténuer l'impact des prix élevés en promouvant des marchés de l'énergie plus efficaces, compétitifs et interconnectés. Les différentiels de coût entre les marchés régionaux du gaz pourraient être réduits avec la mise en place rapide d'un marché mondial du gaz. Les efforts renouvelés en matière d'efficacité énergétique devraient porter leurs fruits et aller bien au-delà de simples améliorations de compétitivité. Mais le potentiel d'efficacité énergétique est très loin d'être épuisé, des mesures sont donc nécessaires pour lever les nombreuses barrières à l'investissement dans l'efficacité énergétique.

Enfin, l'amélioration de la compétitivité énergétique ne doit pas se traduire par une diminution de la lutte contre le changement climatique, lequel est une réalité incontournable. Le problème du changement climatique ne va pas disparaître, et des politiques climatiques adéquates peuvent stopper l'augmentation des émissions sans nuire à la croissance économique. Laissez-moi vous donner un exemple. Le prix du carbone ne nuit pas nécessairement à la compétitivité industrielle. Tout dépend de sa mise en œuvre et si des mesures similaires sont prises dans les économies concurrentes. En pratique, l'augmentation du coût dépend du niveau du prix du carbone, du fait que l'industrie soit ou non contrainte de payer la totalité du prix, et de la mise en œuvre de mesures d'accompagnement pour compenser les prix plus élevé. Par exemple, pourquoi ne pas redistribuer une partie des revenus du prix du carbone pour les consommateurs d'énergie sous forme d'investissements afin améliorer l'efficacité énergétique et de soutenir les politiques en faveur de l'industrie, la recherche et l'innovation ? Ces politiques sont complémentaires des politiques de déploiement des technologies d'énergies renouvelables, il est donc nécessaire que les gouvernements soient extrêmement attentifs à la conception des subventions aux énergies renouvelables et ne fassent pas peser un fardeau excessif sur les subventions couvrant les coûts additionnels et traditionnels. Je vous remercie de votre attention.