What-IF Conference on 'An Intergenerational Fair Perspective on Energy'
14 February 2012 Karlsruhe
Message by Maria da Graça Carvalho

Good morning ladies and gentlemen,

I should like to begin by saying how honoured I am to have been invited to give this opening address from the European Parliament. It is a great source of regret that I have not been able to free myself from my duties in Strasbourg to be with you in the Karlsruhe Institute of Technology in order to discuss a theme that is close to my heart: that of energy policy.

The "What If" conference focuses on how to develop an intergenerational perspective in the domain of energy. The conference is to be welcomed as an opportunity to consider how

best to resolve a number of urgent problems associated with the current production and distribution of energy.

As I see it, reform of the energy sector provides an opportunity to foster a wealthier, fairer, more equitable and sustainable world; one that will lay the foundation for a decarbonised society.

The goal is not only to ensure that we have access to sustainable energy but also that this energy is produced and distributed in a fair manner. This entails, I believe, the key importance of developing local sources of energy production. It is important, however, that energy production is linked up in efficient networks – and the ICT revolution furnishes us

with a model in this respect. Finally, however, it is also essential that we are able to effectively organise the targeted finance that this revolution entails.

Today, I should like to begin by sketching in some of the challenges ahead if we are to build a fair, low carbon society both from a technological and societal point of view.

Taken separately, the challenges we face might appear as threats that loom up before us. But taken together, they can also be seen more positively as real opportunities for a transformation of our society.

Then I shall go on to briefly outline what I think of as an energy revolution. In this

connection, I shall give a little more detail concerning the production, the storage and the transmission of energy. Before concluding, I shall finish with the an overview of how the EU might contribute to financing this transition to a clean, low carbon society.

Challenges

With regard to the societal and technological challenges with which we are confronted, there is today an overall consensus on the need to reduce greenhouse gas emissions globally by 50% by 2050. This represents a cut of at least 80% in the industrialised world. In addition, given the finite nature of oil reserves, a number

of fundamental societal changes will need to be driven by EU policies over the next decade.

This means that our society will have to be organised in a radically different way (work, transport, leisure, city planning, housing, electricity production).

An Energy Revolution

As for the notion of an Energy Revolution: just as the distributed Information Technology and internet communication dramatically changed the economic and social environment, a distributed renewable energy scenario will

represent, it is to be hoped, a revolution in Europe and the world.

People will be called on to produce renewable energy and share it, in the same way that they now produce and share information, creating a new, decentralized form of energy use.

It is critical that we adapt the European and global discussion on climate change and energy security to the mission of building a low carbon society.

Production, Storage and Transmission of Energy

Against this background, let me say a little more about the production, storage and transmission of energy. Renewable sources are scattered amongst different climates and geographical regions. In the future, coordinating these factors will entail a much greater emphasis on local resources and on people organising their own energy sources. It also will also mean less dependency on increasingly expensive imports of energy. Evidently, decisions to be taken in the near future – with the horizon of 2050 in mind -

should take this changing paradigm into consideration.

With regard to the production of energy: we need to envision a future in which millions of individuals can collect and produce locally generated renewable energy in their homes, offices, factories, and vehicles.

Local infrastacture should be able to collect and generate energy at *a local level*. There are a variety of possible sources: from the sun, from wind, from rubbish and waste products, agricultural and forestry waste, ocean waves and from tides and hydro and geothermal sources.

This should amount to enough energy to provide for these local power needs as well as generating some surplus energy that can be shared.

As for the storage of energy: to maximize renewable energy and to minimize cost it will be necessary to develop storage methods. These will facilitate the conversion of intermittent supplies of these energy sources into reliable assets.

This will, definitely, be an important topic for research in the next generation of European programmes.

With regard to the *transmission* of energy, today, the same design principles and smart technologies that made possible the internet, and vast “distributed” global communication networks, are now used to reconfigure power grids.

The reconfiguration of the European power grid, along the lines of the internet, allowing businesses and home owners to produce their own energy and share it with each other, is rapidly being developed by power companies in Europe.

Today’s centralized; top-down flow of energy will become increasingly obsolete. In the new

era, businesses, home owners and local and regional councils will become the producers as well as the consumers of their own energy—this is the so-called “distributed generation.”

In the future, then, it is likely that energy will be produced locally, our capacity to store it will be improved, and it will be transmitted through networks of the sort that we have already seen in connection with the communications revolution.

Financing

However, this will also require investment. In this respect, I would like to briefly stress two key points concerning the financing:

~ The *first* aspect involves increased funding of research and innovation with regard to clean technologies. In my capacities as an MEP concerning negotiations with regard to the forthcoming EU budget, I have made a real effort to increase the share of the overall budget that is allocated to research and innovation.

Horizon 2020, as it stands, already represents an increase in the budget available for research

and innovation: €80bn; in fact, as compared with the €52bn under the previous programme. Gratifying as this is, the EU Parliament has been pressing for a doubling of the budget. This is something that would effectively bring the new figure to around €100bn.

~ *Secondly*, I also believe that we need to improve the governance of the European Research funding system. You will be aware that of one of the EU goals is to ensure that each Member State contributes 3% of its GDP to research and innovation. We need to set up

an oversight mechanism – similar to that which exists for economic governance – to ensure that this actually becomes the case.

In other words, we need more funding but also more oversight in order to ensure that this funds are actually provided for. I am sure that you are aware of the chronic deficit in research funding with which we are confronted in Europe.

Conclusion

By way of conclusion, let me say that a new model for how to meet our energy needs is taking shape. From the point of view of the role played by the EU: the European Parliament and the European Commission are fully committed to the success of increasing the budget for research and innovation and, in particular, the budget for energy. We, therefore, hope that the Council will also support this cause. I would also like to see the EU playing a more dynamic role in ensuring

that our commitments to the research required are actually met.

I am very satisfied with the work that has already been completed and I am hopeful about the road ahead.

All of this represents, I believe, a real step in the right direction, with a reformed energy policy contributing – it is ardently to be hoped – to intergenerational fairness. It is a reform that will represent - with the aid of organisations such as “What If” - a powerful legacy for future generations in Europe.

Thank you very much