

25th National Energy Conference, "Energy and Development 2021"

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Speech

Delighted to take part in the 25th IENE National Conference. I warmly congratulate IENE and my friend Costis Stambolis on organising this event as a hybrid with people participating online and in person. I'm sorry I'm not with you there in Athens.

As usual there are many uncertainties today in the Global Energy Scene. But the priorities of energy consumers remain the same. They want energy which is cheap and secure, and increasingly, energy which is green.

The third of those priorities would scarcely have been mentioned 20 years ago. Yet now it's becoming the most important of all.

The message from COP26 was that the world is moving towards more sustainable energy but it isn't yet moving fast enough. For the first time ever the COP26 conclusions explicitly referred to the phase-down of unabated coal.

And next year at COP27 countries will be expected to return with stronger Nationally Determined Contributions to preserve the chances of keeping the rise in global average surface temperatures below 2C.

I look at these issues from a European perspective even though UK has, in a moment of utter madness, left the EU.

The harm which that decision has inflicted is already being felt in London. On energy policy at least I hope there can continue to be close cooperation between the EU and UK.

So let's consider the three priorities in the light of the energy transition and then see what the implications are for energy policy.

Firstly cheap energy. One trend about which there is no uncertainty is the increasing importance of electricity.

Electricity consumption will continue to rise as its use as a transport fuel spreads very quickly indeed. The expansion of electricity intensive data processing technologies will also increase consumption.

And this growth in demand for electricity will occur exactly when the phase-down of unabated coal eliminates from the market the cheapest form of electricity generation. This makes it extremely likely that the price of electricity will rise.

The phase-down of coal also leads to higher demand for gas which will continue to be widely used for at least the next 20 years. High demand for gas may mean that gas prices remain volatile as the market has already anticipated.

The cost of using fossil fuels will also increasingly be affected by the price of carbon. Less than 4 years ago the EU carbon price was languishing below €10 a tonne. This week it went above €65 a tonne.

Some believe it will rise further. Whether or not that happens at this level it is starting to influence investment decisions.

The progress made at COP26 on Article 6 of the Paris Agreement will lead to the wider use of carbon pricing in order to encourage & accelerate the transition to clean energy, and also to incentivise investment in low carbon technologies by other industries

So the outcome of COP26 will lead to greater linkage between existing carbon markets and to the establishment of new ones, thus making these markets more efficient & more liquid. As the use & scope of carbon pricing spreads so its impact on fossil fuel prices will continue to be upwards.

All these trends together make it very probable that cheap fossil fuel energy will before long become a thing of the past.

Turning to the 2nd priority the phase-down of coal also has implications for energy security. Countries which become dependent on imported gas will be much more vulnerable than those which have already invested in low carbon

electricity generation capacity.

This illustrates how early investment in green technology can strengthen a country's energy security.

Gas rich countries like Russia will be able to exploit the weakness of big importers of gas and become gas price setters, not price takers.

Energy security isn't only about avoiding import dependence. It also requires being able to maintain a continuous supply of electricity. Most new investment in renewable energy now takes place in intermittent forms of electricity generation because solar power has become cheaper.

In 2021 several European countries experienced weather conditions which cut the production of electricity and significantly increased the risk of power outages.

Research by the New Nuclear Watch Institute shows that if a country depends on intermittent renewables to produce 2/3 or more of its electricity the cost of the additional storage and the back-up generation capacity needed to guarantee a continuous supply of electricity can become too high.

So we come to the third priority, green energy. The rise in public concern about climate change is now unstoppable. The pressure on investors and lenders to switch financial support away from fossil fuels to more sustainable alternatives will soon be overwhelming, not just because of worry about climate change but also because of greater awareness of the damage to human health from the pollution caused by FF consumption.

The opponents of faster action to speed up the energy transition point to the higher cost of most LC techs. Even after big falls in the cost of solar and wind these technologies remain, for the time being, more expensive than FFs, partly because of the subsidies & tax breaks still available to FFs and partly because FFs often don't have to cover the full cost of disposing of their waste.

But this price difference won't last for ever and anyway, price alone won't determine the future of FFs. Every week there is news of changing attitudes whether its mining giants like Glencore facing demands from an activist investor to divest their coal assets or coal dependent nations like Greece passing laws for the first time to cut coal use within 6 years.

The world we now live in is changing fast and the pace of change will get even quicker in the next few years. So the challenge for governments is how to handle these changes and how to address the threat of CC successfully without imposing too much cost and disruption on their citizens.

Above all how to ensure that the energy transition is an economic opportunity, not a burden. Inevitably for most countries there will be a short-term cost in switching from cheap but dirty technology to cleaner and greener sustainable business models.

But this cost may be more apparent than real because delaying that switch will almost certainly mean that more expensive and more disruptive action has to be taken later.

And that action may not just be needed to address CC. The European Commission has courageously proposed the introduction of carbon border tax adjustments.

Not surprisingly this has met with considerable resistance. But a mechanism of this sort will soon be recognised as essential to prevent carbon leakage. As it becomes widely adopted countries which still rely on FFs will find that their competitive trading position has been made worse and that of the early movers rewarded.

One symptom of the new world we live in is the changing attitude towards nuclear power. In the UK for the first time in 25 years the government is backing the building of nuclear plants.

Earlier this year the Joint Research Centre of the European Commission published a report strongly endorsing nuclear power because of its safety record and its better health and environmental impact. This report reversed decades of ambivalence and even hostility to nuclear from the Commission.

Nuclear has a key role alongside renewable energy in the energy transition. The flexibility offered by advanced and SMRs will make it possible for nuclear to be deployed, and for well-paid clean jobs to be created, in far more places than previously.

Other technologies involved in the energy transition offer economic opportunities. The IEA has forecast that a 90-fold increase in global hydrogen production is needed by 2030.

Sites are already being sought here in Greece by a Polish company Hydrogen Utopia International for the development of plants to convert waste plastic into hydrogen using a technology pioneered by a UK company.

These are the opportunities offered by the energy transition. If they are seized by government and business alike they offer humanity the chance of a richer as well as a more sustainable future.

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