

DINNER SPEECH AT THE CONFERENCE TOWARD THE ESTABLISHMENT OF AN INTERNATIONAL RENEWABLE ENERGY AGENCY (IRENA)

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Thank you, Hermann, for your kind words. As many of you will know, Hermann Scheer has been the driving force behind the creation of IRENA. Please join me in recognising that without his vision and unwavering commitment to the establishment of IRENA, we would not be here today.

I should like to say how honoured and delighted I am to be delivering this speech. Many of you will have heard about the recent chaos at Heathrow Airport in London. But this conference was so important that I braved the potential horrors of Terminal 5 to be here today. To my great surprise, everything went smoothly, so I take that as a good omen for the success of this conference.

The threat of global climate disaster

Today we stand at a crossroads in history. Most climate scientists have sounded urgent alarms, warning us about the imminent threat of climate change, and the impending tipping point. David Wasdell, Director of the Meridian programme, in a book he co-authored called *Planet Earth, We Have A Problem*, describes the tipping point like this:

“If we go beyond the point where human intervention can no longer stabilise the system, then we precipitate unstoppable runaway climate change. That will set in motion a major extinction event comparable to the five other extinction crises that the earth has previously experienced.”

As climate change kicks in, the tropical and subtropical countries of Africa, South Asia and Latin America will heat up more and more, with temperatures becoming increasingly intolerable. Droughts will affect large parts of Africa, Asia and Latin America. Melting glaciers will flood river valleys and then, when they have disappeared, unprecedented droughts will occur. Poor, low-lying countries such as Bangladesh will find it much harder to cope with sea level rise than Holland or Florida.

If current trends are allowed to continue, hundreds of millions of people in the poorer countries will lose their homes, as well as the land on which they grow

their crops. And then there is the threat of diseases: By the end of the century 182 million people in sub-Saharan Africa alone could die of diseases directly attributable to climate change, according to Christian Aid.

Given the scale of this impending disaster, we have no choice but to embark upon a global renewable energy revolution, by replacing our carbon-driven economy with a renewable energy economy. The challenge we are facing now is how to switch to a more secure, lower-carbon energy system that does not undermine economic and social development, and addresses the threats of climate change and global inequality.

Climate change is no longer just an environmental issue: it touches every part of our lives: peace, security, human rights, poverty, hunger, health, mass migration and economics. IRENA is a necessary condition for preventing climate disaster and ensuring global energy security and stability.

I will be frank with you. Before now, I was sceptical whether the international community had the resolve to do what is necessary to prevent global climate disaster. However, the establishment of IRENA is more than the establishment of just another agency. In addition to its visionary goals, it will benefit from Hermann Scheer's twenty years of expertise and dedication to the creation of this organisation.

There have been indications that various governments have taken notice of the threat posed by climate change: the World Summit for Sustainable Development in 2002, the International Renewable Energy Conference in Bonn in 2004, and the Beijing International Renewable Energy Conference in 2005 are three examples. By taking the initiative in hosting this conference, the German government have proposed concrete steps where previously there was mostly talk. I hope you will join me in applauding their courage and foresight.

Milton Friedman said, "In a crisis, the actions that are taken depend on the ideas that are lying around. That... is our basic function: to develop alternatives to existing policies, to keep them alive and available until the politically impossible becomes the politically inevitable."

Never before has humanity been so overwhelmed by such massive and urgent concerns. We are experiencing explosive population growth: the world's population is forecast to reach 9.2 billion by 2050. Since 1992, there has been a 50% rise in world energy consumption. Another 50% rise is expected in the next fifteen years. We now know that if we remain locked into an inefficient, polluting, fossil-fuel based global economy, we will exhaust the Earth's natural resources and we will accelerate climate change.

So we have reached both an environmental and an economic tipping point. Which direction we choose to take will decide the fate of our planet. What is

certain is that we must bring about fundamental change in our energy systems, with a renewed focus on energy security and lower, if not zero, carbon emissions.

But we should be wary of using phrases like “the carbon-free economy”. So far, this expression has been used in relation to two technologies that fail to provide acceptable solutions to the energy crisis. The first is “carbon capture and storage”, or CCS technology. Not only is this technology still speculative, though it is projected for 2020, it is already clear that insufficient space exists to capture all the CO₂ released. We can also say that implementing CCS will be much more expensive than providing energy from renewable sources.

The second technology is nuclear power. The nuclear industry has attempted to “green-wash” itself by trumpeting its carbon neutrality, yet the deployment of nuclear power comes with tremendous – and, to my mind, unacceptable – risks, including large-scale nuclear accidents, the problem of waste, uranium storage, nuclear proliferation in general, and last but not least the high water consumption of nuclear power plants. As some of you may know, France was forced to shut down some of its nuclear reactors a few years ago, thanks to a shortage in cooling water. As we continue to experience worldwide water shortages, and as we look to a future in which these shortages are set to worsen, this is a significant risk factor in relying on nuclear power.

Nuclear power is not a panacea to cure us of our energy worries. Quite apart from the safety concerns it poses, the substantial costs involved and the irresponsibility of burdening future generations with the problems of waste management, it is estimated that our usable uranium reserves will run out within five decades – and that is only if no new power plants are built. Attempts to “stretch” current reserves with various technologies carry incalculable cost. Similarly, proposals that have been made to extend the life of the fossil fuel energy system not only risk the ecosphere but also represent a mammoth financial burden to future generations.

Renewable energies, on the other hand, avoid many of these problems, and even create a plethora of opportunities – economic, environmental and social. Renewable solutions are affordable, available and a moral imperative. With the benefits to poorer countries of decentralized, indigenous energy sources, and the affordability of implementation that has been demonstrated by the latest research, we will be working toward solving the two great threats to our continued survival: environmental degradation and global inequality. Renewable energies provide a realistic solution to both. And, as the example of Germany shows, the employment benefits are staggering: Germany has created some 250,000 new jobs by its accelerated introduction of renewable energy in less than ten years.

The advantages of renewable energy

Traditional sources of energy, which account for 60% of the current commercial energy supply, are becoming scarce. But renewable energy provides sustainable, safe, affordable power that does not run out and does not pose a risk to ourselves or to the environment. For these reasons, the creation of IRENA is necessary and urgent.

The arguments that renewable energy does not provide sufficient or affordable alternatives to traditional energy sources have been exposed as flawed and false. Furthermore, the cost of finite conventional energies will continue to rise as the sources dry up. But, as we will all have read in Herman Scheer's books, *The Solar Economy* and *The Solar Manifesto*, renewable energy costs will generally go down, as they consist almost exclusively of technology costs. Mass production and technological innovation will bring dramatic decreases in cost. So we should not see the promotion of renewables as a burden: we should see it as a unique economic opportunity – one that will reward those who get on board early. IRENA will be instrumental in encouraging research and development to facilitate its affordability and implementation, and for this reason, the creation of IRENA is necessary and urgent.

As we have heard today, countries in the Global South enjoy little or no energy security. But a renewable energy revolution will have crucial economic and social benefits for the poorest countries in the world. Home-grown renewable sources provide developing countries with the means by which to insulate themselves against rising energy prices elsewhere in the world. And with a decentralised renewable network there would be no need for expensive grid solutions.

In promoting these decentralised energy systems, we will be helping to prevent political and military conflicts sparked by scarcity of resources. We will be giving the developing world true and lasting energy security. For this reason, the creation of IRENA is necessary and urgent.

Renewable energy stimulates economic growth and local job creation. In 2007, more than \$100bn was invested worldwide in renewable energy technology. By 2006, 2.4 million jobs were created. Since renewable energy installations are less complex to operate than conventional facilities, plants can be managed by local workforces as part of a decentralised system.

Only renewable energy offers the possibility of true energy efficiency. Whilst in the global supply chains of conventional energies, from mines and wells to customers, there are large energy losses, the short supply chains that are possible in the renewable model will lead to a drastic reduction in wastage. To make short energy chains feasible will require investment in research and development of storage technologies, and this is an area in which IRENA will

be of vital importance. So for this reason, too, the creation of IRENA is necessary and urgent.

In addition to reducing the burden on the Earth's natural resources, renewable energies reduce pollution, because renewables mostly result in only very small greenhouse gas emissions.

So whilst conventional fossil and atomic energies continue to endanger the health of the planet, risk sparking conflict over declining resources, and require high water consumption and ever-increasing costs, renewable energy sources do not bring with them these negative effects. The representative from Senegal today spoke of “ridding ourselves of the tyranny of oil”.

Renewables are the only solution to the three key global energy challenges: energy security, cost efficiency and environmental protection. The task now is to create policies that make investment in renewable energies an attractive proposition at national and international levels. For this, the creation of IRENA, as you may have guessed by now, is necessary and urgent.

Moving forward with renewable energy

Notwithstanding all these advantages, there is still unjustifiable political prejudice against renewable energy. While conventional energies enjoy political privilege, including large amounts of public money for research and development, military protection of the supply chain and \$300 billion in global annual subsidies, renewable energies are discriminated against. Though intergovernmental institutions exist to promote atomic energy – for example the IAEA and EURATOM – not one exists for the promotion of renewables. Renewables need an institutional base at international level to provide a reference point – an intergovernmental agency to advise governments in drawing up policies and strategies – to address the current imbalance between traditional and renewable sources.

To date, the International Energy Agency, the IEA, despite its significant expertise, is seen by the developing countries as a “club for the rich”, and their influence and activity is limited to the OECD countries. The IEA only recently showed interest in renewable energy sources. Other existing networks have no mandate to advise governments on the accelerated introduction of renewable energy.

It is not as if this is a sudden or unexpected crisis. We have known the limitations and damaging consequences of conventional energies for over thirty years. As Hermann Scheer puts it, the result so far has been “talking globally, postponing nationally”, with the effect that the introduction of renewable energies has not been nearly fast enough. Despite clear indications that

renewable energy was the inevitable way forward, we have not met the challenges set at Rio in 1992.

Paying lip service to renewable energy is no longer sufficient. We now require concrete action. The delays in investment and adoption of renewable energies have been environmentally and economically inexcusable. We have the tools to expose the fossil fuel industry's claims that renewables are expensive and inadequate as false. Promoting renewables must now become a global and universal priority, and IRENA is a necessary condition for that goal. If we intend to embark on the renewable energy revolution, we cannot do it without IRENA.

IRENA will work toward improved regulatory frameworks for renewable energy through enhanced policy advice, improvements in the transfer of renewable energy technology; progress on skills and know-how for renewable energy; it will be able to offer a scientifically sound information basis through applied policy research; and better financing of renewable energy.

Germany has shown great leadership and vision in spearheading the renewable energy revolution. We must grasp firmly the hand that is being offered to us and embark upon this revolution to prevent global climate disaster. I thank the German government for this opportunity, and Hermann Scheer for his outstanding work. Also on behalf of the World Future Council, of which I am the Chair, I urge each of you support the establishment of IRENA as heralding a new world order, in which we can look forward to safe, affordable, secure and stable energy sources for all.

I was delighted today to see the discussions quickly focus on substantive and practical issues. It seems as though many countries are keen to begin working.

I would like to finish by quoting Dr. Scheer:

To be able to discuss energy as a separate matter is an intellectual illusion. The CO2 emissions are not the only problem of fossil energy. The radioactive contamination is not the only problem of atomic power. Many other dangers are caused by using atomic and fossil energies: From the polluted cities to the erosion of rural areas; from water pollution to desertification; from mass migration to overcrowded settlements and the declining security of individuals and states. Because the present energy system lies at the root of these problems, renewables are the solution to these problems. That means: Nothing is macro-economically better and cheaper than the total substitution of conventional energies by renewables. We need a hard-line strategy for soft energies.

Hermann's words show that this is the over-riding moral imperative of the

century: the time has come for decision-makers in politics and economics to embrace this opportunity.

There is no time for further excuses, postponement, or procrastination. This is a time for courage and leadership, and for positive and immediate action.

We have an obligation to future generations upon which we must not renege. For their sake, I urge you to take full advantage of the current political momentum and give your full support to the creation of IRENA.