WEC Statement 2008

Generating new momentum

THE ENERGY INDUSTRY VIEW: RESPONSIBLE GROWTH FOR A SUSTAINABLE FUTURE

Global growth in the recent period, especially in emerging economic giants such as China and India, has been much stronger and sustained than expected, putting the issue of energy availability at the forefront of the global agenda. Looking forward, experts concur that more primary energy will be needed until 2020, and expect a doubling of world energy demand by 2050.

Hence, our main goal today is to work towards responsible growth that reconciles economic development, environmental protection and the reduction of global inequalities. In essence, this means learning to do more with less. We must be engaged in a tireless search for concrete solutions that enhance global welfare in a sustainable manner.

Achieving this will require careful and meticulous planning on the part of our industry, with government, intergovernmental institutions, and civil society rising to the challenge. We are well aware that the decisions we make today will determine the global energy landscape for the next 30 years. The coming generation will thus inherit the full consequences of today's decisions. This calls for an in-depth reassessment of our goals and priorities, which some qualify as the third energy industry revolution.

As an international forum that can bring all stakeholders together, the World Energy Council (WEC) has a key role to play in elaborating viable, sustainable solutions.

GOOD GOVERNANCE TO DEVELOP APPROPRIATE ENERGY POLICIES

Good governance and accountability will be essential to ensure that investment decisions are made with a view to sustainability. Pursuing the WEC's triple A objectives of Accessibility, Availability and Acceptability will require Accountability.

Gearing up for massive investments

According to best estimates, huge investments in energy infrastructure ($22 trillion) will have to be made by 2030 to meet rising global energy demand. Nearly half will have to be spent in the power sector, mostly in developing countries which by 2030 will account for nearly 80% of global installed generating capacity. One-fourth will be spent in the oil sector, mostly for exploration and development; and one-fourth in the gas sector, with emphasis on the upstream and LNG.

In the developed world, major investments are needed to renovate and modernise the existing energy infrastructure. The fast-growing economies of Africa, Latin America and Southeast Asia will be focusing on new energy supply and infrastructure to sustain their development.

Tapping into available upstream and downstream technologies

Because we are entering this phase of massive investment, we must focus on several energy options, some of which could have immediate payoff while others are for the period beyond 2030. The good news is that we already have the technologies we need to set the foundations for a sustainable energy future.

Clearly, drawing the full potential from all energy sources is key. At the 20th World Energy Congress in Rome, we agreed that all sources must be developed to meet the world's fast growing energy needs. Fossil fuels will remain a major component in the energy mix for at least another generation. Nuclear

power will account for an increasing share of this mix. As energy sources, best site wind turbines, biomass, geothermal, and heat from waste are technologically and financially viable today.

At the same time, the energy sector has at its disposal the latest available clean technologies (i.e. high efficiency fossil fuel plants, nuclear, large hydro and other renewables) to help reconcile development and climate change.

Energy efficiency must also become a greater global priority both in terms of production and consumption. Energy conservation, too, must move up the value chain of possible strategies to increase available energy supply. Up to 50% of the total energy demand by 2050 could be met in this way.

Today, there are available energy efficiency options in transport and heating systems from which we are not yet drawing the full potential, such as high efficiency engines, hybrid cars and tramways in cities; insulation and solar water heaters for homes, and induction in factory processes.

Within 20 years, new technologies like carbon capture and storage, photovoltaic, second generation of biofuels, 4th generation nuclear will provide further means to respond to our new energy challenge.

Working actively towards effective sustainable energy policies

A decisive factor for success is defining and implementing appropriate energy policies to drive investor-friendly regulation. This requires concrete and constructive dialogue between government and industry and among the various industries most concerned.

Rising fossil fuel prices should stimulate this dialogue. Oil has recently reached more than $100/bbl. This generates other price effects, but higher energy prices should encourage energy efficiency and attract new investment. Likewise, a predictable global carbon value will work in concert with higher energy prices to drive investments in cleaner energy, as consumers respond by taking greater conservation measures and producers have more capital to invest in more efficient generation.

MOVING TOWARDS INCREASING ENERGY INTERDEPENDENCE

The energy challenge in the next 30 years is daunting. There are great uncertainties at the outset, from the regulatory framework for energy to the regulation of carbon emissions. Yet it can also be seen as an extraordinary opportunity to foster dynamic and constructive collaboration worldwide.

What emerged from the many roundtables and discussions at the 20th World Energy Congress was a general industry-wide consensus that we are moving towards greater energy interdependence, requiring much deeper integration of regional and international energy markets.

Fostering international partnerships and cooperation

More public-private partnerships will be needed to address growing global interdependence, especially to help speed up the transfer of technologies best suited to developing countries. The Clean Development Mechanism, which allows companies in the developed world to offset emissions by investing in projects in the developing world, should embrace efficiency programmes and all sustainable technologies, such as large hydro, nuclear power, and carbon capture and storage (CCS) from fossil fuels.

To promote this higher level of cooperation, as acknowledged by governments at the Climate Change Conference in Bali (COP13), the WEC is expanding its global mandate. The new remit will amplify the WEC's efforts at alleviating energy poverty, setting a global carbon value, and establishing global rules of energy trade and investment.

Focusing on technology transfer to meet the world's emerging energy needs

Developing countries have a particular energy challenge - how to increase access to modern energy for the two billion of the world's poor in their midst who are currently without. In the emerging global dialogue on meeting the world's energy needs, there is a general agreement we have to respect the priorities of developing countries in fulfilling this important objective.

The energy industry must have incentives to transfer the latest and cleanest technologies for all possible sources of power generation, including nuclear, gas, coal-fired plants and large hydro, in the most efficient and cost-effective manner. At the national level, appropriate policies, measures and instruments that are environmentally effective need to be established and constraints removed.

Working towards a global framework beyond 2012

Climate change is a true planetary challenge, one that affects every energy company differently because of long investment timelines and large capital requirements. To curb greenhouse emissions, the energy industry urgently needs a global framework beyond 2012 that reconciles the need to adapt to different realities while providing common rules.

One idea for the post-Kyoto period would be to devise a model combining commitments to targets for developed countries and investment commitments for developing ones. At the same time, while the United

Nations Framework Convention on Climate Change is determining the objectives, the WEC believes the World Trade Organisation should be involved in creating global rules of energy trade and investment.

Indeed, while the Kyoto Protocol has stimulated the development of emissions trading systems, expanding the market will require increases in the value of carbon as well as emission limits. A flexible scheme can also be used to raise investment in technology transfer to help developing countries fulfil their requirements for clean energy technologies.

In addition, global rules are needed to create the conditions for the emergence of a global carbon value, a vital signal that will drive clean energy investments and provide much-needed stability to the investment climate.

To contribute to these goals, WTO rules and disciplines must be re-examined to identify potential areas of conflict with the existing Kyoto Protocol. WTO and GATT disciplines could prove useful in designing a global carbon market. A number of areas must also be thoroughly examined where trade rules and the existing Kyoto Protocol may come into conflict.

RE-INVENTING OUR ENERGY FUTURE

What is required of our industry is nothing less than a full-scale reinvention of what we aim to achieve and how we go about it.

Raising public awareness

To ensure that the right decisions are made, local and national authorities must make consumers more aware of all available technology choices and the important role transport plays in reducing global CO2 emissions. Governments must take strong and coordinated steps today to raise consumer awareness.

Boosting R & D

Increasingly intensive and effective research and development is required if we are to meet the challenges ahead. Delivering cleaner alternative forms of energy, developing fourth-generation nuclear power as well as carbon capture and storage from fossil fuels, boosting energy efficiency by exploring promising avenues such as climatic architecture and fuel efficient modes of transport will only be accomplished by tapping into current solutions while actively exploring the potential for further improved solutions.

Industry and government require much higher levels of research, development, deployment and diffusion, to accelerate the identification and dissemination of cleaner and more efficient energy technologies. The amount of current private sector energy research has stagnated at levels much lower than those of the 1970s. That trend should be reversed.

Engaging in fruitful dialogue and analysis

WEC has an important role to play between now and the COP15 meeting in Copenhagen in 2009: The Bali discussions illustrate the conclusions of WEC's Scenarios Report regarding energy public policies and international cooperation.

In the years ahead, the WEC network will enrich the global energy dialogue on achieving these sustainable energy development goals by commissioning a series of studies, including energy for megacities and vulnerabilities in the energy supply chain. A special Task Force on rules of energy trade and investment will report and the WEC will also participate in developing an assessment of energy policies best practices, the findings of which will be communicated broadly and annually.