

'We need a Nelson Mandela for the energy world'

## *World Energy Council calls for strong government action*

| By Karel Beckman

'A third energy revolution can be accomplished if urgent action is taken to pursue all energy options', was the optimistic message of André Caillé, Chairman of the World Energy Council, at the closing ceremony of the 20th World Energy Congress in Rome on 15 November. 'Industry has all the technologies needed to reconcile energy development with climate change.'



Brian Statham. Photo: Eskom

The outgoing chairman, who has now been succeeded by Pierre Gadonneix, Chairman and ceo of Electricité de France, in his closing speech echoed the major conclusions of the WEC's Energy Policy Scenarios to 2050, WEC's flagship publication that was presented in Rome.

In its Policy Scenarios, WEC concludes that there are 'enough energy resources around the world to satisfy the energy demand over the next forty-plus years'.

Not only are there enough resources, it is a 'myth', says the WEC-study, 'that the task of meeting the world's energy needs while addressing climate change is simply too expensive and too daunting. With greater cooperation, greater investment and clear rules for energy trade, together we can build a sustainable energy future.'

How the twin challenges of increasing energy production and limiting CO<sub>2</sub> emissions are to be reconciled, was surely the main topic of debate at the 20th World Energy Congress. According to the WEC, 'the main driver to address this dual challenge will be higher energy prices. Higher prices will propel the developed world towards greater energy efficiency and attract much higher levels of capital investment in infrastructure.' The WEC adds that 'strong cooperation will be necessary to avoid negative effects of higher prices on developing countries.'

In the Policy Scenarios, the WEC, adds two further warnings. First, investments

will not be forthcoming unless investors are confident that their property will be secure. Second, CO<sub>2</sub> emissions will not be curtailed if no price is put on carbon. Both these conditions can only be met, says the WEC, by increased 'government engagement'. Thus, the WEC calls on 'governments' to 'do their part by establishing global rules of energy trade and setting a stable price for carbon that is clearly understood by markets and investors.'

The WEC also stresses that 'all energy options' should be on the table. It rejects out of hand demands by some environmental activists to ban the use of nuclear power or coal or oil.

The Policy Scenarios consist of four possible scenarios for the future, which are called the Lion, the Giraffe, the Elephant and the Leopard scenario. The best overall performer, says the WEC, is the 'lion scenario', which is characterized by 'high levels of government involvement', 'high levels of cooperation and integration', and 'deep integration of the public and private sectors'. By contrast, in the 'giraffe scenario', governments are only minimally involved; in the 'elephant scenario', governments are strongly involved, but there is little cooperation with the private sector, and in the 'leopard scenario', countries are 'preoccupied with their own security of energy supply'.

The 'lion scenario', says the WEC, is the best way to achieve 'accessibility' (affordable modern energy for all),

‘availability’ (reliable and secure delivery) and ‘acceptability’ (meeting social and environmental goals).

It leads to the lowest global energy intensity (i.e. energy use in relation to GDP: almost minus 50% in 2050 in contrast to minus 30-40% for the other scenarios) and the lowest rise in greenhouse gas emissions (plus 30% in 2050 as compared to plus 40-100% in the other scenarios). Even so, the ‘lion scenario’ allows for a doubling of primary energy production to 2050 - which is just what energy supplies must do according to the WEC-study to meet increased demand.

How did WEC arrive at this result? Brian Statham, Chairman of the South African National Energy Association and executive of South African electricity company Eskom, who chaired the Policy Scenarios study group, and Michael Cupit, director at Ernst & Young, who managed the project, tell European Energy Review that, for the first time in its history, the WEC used a ‘bottom-up’ approach to come up with its Policy Scenarios. That is to say, over 400 ‘decision-makers’ from the energy industry, government, academia, NGO’s and trade groups, participated in regional groups that each produced a scenario report for its region of the world. These reports were then enriched by a number of ‘specialist groups’ and subsequently checked for consistency with a mathematical simulation model provided by Enerdata in Grenoble. The latter provided the more ‘traditional’ quantitative input. But it was the qualitative input of the 400-plus experts that ‘made the difference’, say Statham and Cupit. ‘In the past’, says Statham, ‘scenarios would be primarily based on theory and statistics. Only then would the WEC-members add comments. This study, by contrast, is led by the people involved. It is built on their experience.’ The new approach turned out to be

‘an incredibly complex task’, Statham admits. ‘That is why we engaged Ernst & Young to help us with it. Initially they were engaged to project manage this complex problem, however, over time they became much more closely involved in refining the content of the report.’

According to Statham, all the people involved clearly ‘expressed their different needs’. ‘At first we focused on the climate issue, but then we realized that no matter what we do, if we don’t address the needs and problems of developing countries, we are not going to get anywhere on climate.’ Statham observes that there ‘still is a lot of mistrust on both sides. The developing world mistrusts the intentions of the developed world. The developed world sees what it calls “regulatory risks” as by the far the most important business risk.’

How, then, does WEC think that this ‘distrust’ can be overcome - or, for that matter, how its preferred ‘lion scenario’ might come to be realized in practice? To this question, Statham and Cupit, have only one answer. What is required, they say, is ‘new leadership’.

‘Leadership needs to be stepped up’, says Cupit. ‘We need people to come up and say: we will make it happen.’

‘Many people have asked, why are you so optimistic in this report’, says Statham. ‘Well, I come from South Africa. I have seen an enormous change take place. In 1992 there was the will, there was inspired leadership. The will to make things happen. You cannot put that in a spreadsheet or in a model. Great changes require leadership.’

South Africa, of course, was saved by great leadership. But will the same happen with the energy future of mankind? ‘You don’t see inspirational leadership anywhere at this moment’, Statham admits ruefully. ‘Hopefully this report will encourage someone to step forward. We need a Nelson Mandela for the energy world.’ ■

*‘We need a new generation of leaders’*

**Samuel Bodman**

US Energy Secretary

*‘We have a global problem, but not a global governance’*

**Pierluigi Bersani**

Italian Minister of Economic Development

*‘We need to show leadership’*

**Thierry Vandal**

President and ceo of Hydro-Quebec

*‘The energy challenge can’t be resolved without the collaboration of governments that must have a role in defining the market dynamics. Decisions, certifications and authorizations must be modernized and harmonized’*

**Jeffrey Immelt**

Chairman and ceo of General Electric