WORLD ENERGY COUNCIL
CONSEIL MONDIAL DE L'ÉNERGIE
For sustainable energy.

WORLD ENERGY FOCUS

#5 • NOVEMBER 2014

monthly insights from the WEC's global leadership community

Energising Africa

Benefits of tackling energy poverty in Africa 'would outweigh the costs'

Data gathered by satellite over 22 days in 2012 was used to compile this image of what the earth looks like at night. Most of the light sources in the map come from human activities, mainly in cities. Africa, despite its large population, shows very few concentrations of light, especially south of the Sahara (Source: NASA)

Despite the various initiatives already under way to give the people of sub-Saharan Africa access to modern energy sources, much more could and should be done "to release the energy brake" on the region's social and economic development. So says a comprehensive study just published by the International Energy Agency (IEA) that focuses on what Executive Director Maria van der Hoeven describes as "the epicentre of a major energy poverty crisis". Increasing access to modern energy would enable "a major push towards a more self-sustaining model of economic growth" – with "the benefits outweighing the costs".

Since the turn of the millennium, the nations of sub-Saharan Africa have, for the most part, seen relatively strong economic growth. By 2013 the region's economy had doubled in size to reach $2.7 trillion. Yet today, despite the initiatives under way to bring modern energy to the region's people, around 620 million – two-thirds of the population – still have no access to electricity while 730 million still cook with traditional biomass that endangers health. According to the IEA, household air pollution from solid biomass leads to 600,000 premature deaths each year.

STARK CONTRAST

The image on this page shows graphically the contrast – in terms of light sources at night, mostly a result of energy use – between not just Africa and the OECD economies but between Africa and other developing and emerging economies, notably India and China (both of which have populations of the same order of magnitude as Africa). Even people who do have access to electricity have a per capita residential consumption of half the level in China or one-fifth the level in Europe.

The Africa Energy Outlook just published by the IEA – the most comprehensive study the agency has ever conducted on the region – points out that while energy demand in sub-Saharan Africa grew by 45% between 2000 and 2012, the region "accounts for only 4% of global demand despite being home to 13% of the global population".

> see page 2

INSIDE THIS ISSUE

"Put simply," says van der Hoeven, "the energy sector of sub-Saharan Africa is not yet able to meet the needs and aspirations of its citizens. More can be done to tackle this, more should be done to tackle this, and importantly, the benefits of tackling this outweigh the costs, meaning that it also makes economic sense . . . But the challenge is surmountable and the benefits of success are multiple and immense."

The IEA report sets out the specifics of what could be done to accelerate the process of improving energy access, so that energy becomes a driver of the region's social and economic development rather than "a brake". The problem is not that the region lacks energy resources. "Resources are more than sufficient to meet the needs of its population," says the agency, "but they are largely underdeveloped". Around a third of global oil and gas discoveries in the past five years have been in sub-Saharan Africa, which is already home to several major energy producers, including Nigeria, South Africa and Angola. Huge discoveries of natural gas have been made offshore of Mozambique and Tanzania, both of which are expected to become LNG exporters over the coming decade. The region is also "endowed with huge renewable energy resources."

Investment in sub-Saharan energy supply has been growing but the IEA finds that two-thirds of the total invested since 2000 "has been aimed at developing resources for export". It adds: "Grid-based power generation continues to fall very far short of what is needed, and half of it is located in just one country – South Africa."

The IEA study presents two scenarios of how energy in sub-Saharan Africa could develop between now and 2040. In the central case, the region's economy quadruples in size, the population almost doubles to 1.75 billion, while energy demand grows by around 80%. The energy system expands rapidly but so do the demands placed on it, so that many of the existing challenges are only partly overcome. Generation capacity quadruples from 90 GW today to 385 GW, with almost half the growth coming from renewables. Total power sector investment averages $46 billion/year, just over half of that going into transmission and distribution.

By 2040 another 950 million people gain access to electricity, with urban areas experiencing the biggest improvements. Mini-grid and off-grid systems bring electricity to 70% of those gaining access in rural areas. But that still leaves 530 million without electricity by 2040, mostly in rural communities. This figure is similar to the figures highlighted by the World Energy Council in the scenarios published last year at the World Energy Congress. Despite policies that accelerate a switch to modern fuels, 650 million people in 2040 still cook with hazardous biomass, says the IEA.

The IEA concludes that "three actions could boost the sub-Saharan Economy by a further 30% in 2040, and deliver an extra decade's worth of growth in per-capita incomes by 2040":

- Investing an additional $450 billion in the power sector would achieve universal electricity access in urban areas and cut power outages by half.

- Deeper regional co-operation and integration would facilitate new large-scale integration and transmission projects and enable a further expansion in cross-border trade.

- Better management of energy resources and revenues and the adoption of robust and transparent processes would ensure more effective use of oil and gas revenues.

Were all this to be achieved the result would be what the agency calls its "African Century Case" scenario, with an additional 230 million people gaining access to electricity by 2040.

As for the role of the WEC, van der Hoeven told World Energy Focus:: "When you go into the phase to find solutions, and to see how to involve more and more companies, it's important that an organisation like the WEC is very much involved. It's a global organisation with a lot of stakeholders from industry and financial organisations. It will be very important in taking the next steps to cooperate with organisations like the WEC.

Next year has been designated the WEC's year for Africa starting with the Africa Energy Indaba in Johannesburg in February and culminating at the Executive Assembly in October in Addis Ababa *(see events page)*. Speaking at the WEC's Executive Assembly in Cartagena last month, Bonang Mohale, Vice Chair for Africa of the World Energy Council, said that despite Africa's high growth, much more needed to be done in bringing energy to the people. "Over 1.4 billion people in the world are without any form of electricity, almost half of them in Africa," he said. Addressing the issues of regional integration, gas development in southern Africa, and hydropower will help create thousands of jobs and grow the region's GDP, he added. Branding himself an "Afro-optimist", he said: "This is the African century." ●

NEWS FLASH

ABU DHABI TO HOST 2019 WORLD ENERGY CONGRESS AND 2016 DATES ANNOUNCED

Abu Dhabi will host the WEC's 2019 World Energy Congress, the premier triennial gathering of the energy sector – the first time that the congress will be held in the Gulf states. WEC Chair Marie-José Nadeau commented: "The congress is an extremely influential event, gathering the world's energy leaders to address the challenges of providing sustainable energy supplies. The WEC looks forward to working closely with the Abu Dhabi 2019 Congress Organising Committee." The 2016 World Energy Congress in Istanbul, Turkey, will be held from 10 to 13 October 2016.

ABOUT ***WORLD ENERGY FOCUS***

The WEC **World Energy Focus** magazine is published monthly by Energy Post Productions.
For more information please contact us at info@worldenergyfocus.org

Publishers
Karel Beckman and Matthew James
publisher@worldenergyfocus.org
Editor Alex Forbes
editor@worldenergyfocus.org
Head of News at the WEC
Monique Tsang
tsang@worldenergy.org

Advertising and Sponsorship:
sales@worldenergyfocus.org

Subscribe for free:
www.worldenergyfocus.org

Corporate subscriptions:
subs@worldenergyfocus.org

Back issues:
www.worldenergyfocus.org

Design by Ron Wolak at Stap2.nu
website stap2.nu

About the editor:

Alex Forbes has been reporting on energy developments and analysing trends for more than three decades.
His expertise covers all the mainstream energy sources, policy, regulation and climate change. In 2013, Alex received the annual award from the International Association for Energy Economics for Excellence in Written Journalism.

Give and take

Colombia's social and economic revolution has benefited from – and will benefit – energy

This year's WEC Executive Assembly was held last month in Colombia.

With the WEC's Executive Assembly along with its World Energy Leaders' Summit held in Colombia last month, World Energy Focus took the opportunity to interview the nation's Minister of Mines and Energy, Tomás González Estrada. Energy, he says, has been the main driver for an economic and social revolution in the country, following reforms made over a decade ago aimed at attracting more foreign investment into the sector. Looking ahead, energy will need to generate revenues to consolidate the peace that Colombia is striving to attain after over half a century of conflict – and no sector will benefit more from a lasting peace than energy. The minister also expressed delight at the news that Colombia has risen from 24th to 16th in the upcoming WEC Energy Trilemma Index.

How would you sum up the World Energy Council summit that has just been held in the Colombian city of Cartagena?
The summit was an enriching experience – very positive in terms of attendance, the quality of the discussions, the business opportunities and the lessons learnt by countries and companies. It's clear that there is a consensus over the importance of energy integration. The main benefits – supply reliability and ebergy efficiency – are recognised by everyone.

There is a set of energy problems that the different countries share. There are valuable lessons to be learnt about how to continue reducing energy poverty in Latin American countries, what we have to do to integrate more closely, what the regulatory path should be, and what regulations are needed for integration to work.

It is now more than a decade since Colombia reformed its energy sector to attract more investment. How well have the reforms worked?

Colombia has improved in recent years. There has been a revolution in economic and social terms, in poverty reduction, in job creation and in economic growth.

Colombia's President Juan Manuel Santos addresses the assembly, emphasising the value of WEC's Trilemma in helping to strengthen the country's energy sector.

The most important thing is that behind all this – in its silent way – has been energy. It has played a leading role by giving us the resources to make social investments in all areas. Energy has enabled jobs to be created and, most importantly, energy has reached people who had no access to it before. Nothing reduces poverty as much as access to energy.

What plans are there for further reforms?
Colombia is a long way down a peace process – a process that is advanced and on course. But making peace is going to require a great deal of investment. The energy sector is going to have to generate the resources to pay for our investments in peace and in poverty reduction, which means the sector is going to play a very important role in determining Colombia's future.

We are going to continue as a country open to investment, as a country in which the public sector is working to create a clear and stable regulatory framework to attract responsible investment – investment that can be made in a way that ensures resources are available and which remains open to new technologies.

In the future, above all in terms of hydrocarbons, we are very focused on the development of unconventional reserves, in the development of the offshore resources that we have, and in developing the necessary technologies.

Is Colombia an example for other countries in the region to follow?
I believe that in Colombia we have valuable experience. We have learnt and discovered things that have worked well for us, such as institutional reforms that have enabled us to attract investment.

We have experience in developing projects and energising small communities. If anyone feels that the Colombian experience is useful, we are very pleased to share it.

At the WEC summit, several countries – such as Peru, the Dominican Republic, and Mexico, with its energy reforms – asked us to explain the Colombian situation.

They told us publicly that they had used the Colombian experience very productively.

> see page 4

So we are pleased that people want to know about the Colombian experience. However, we also know that we have a great deal more to do and we learnt a lot in this conference about what other countries of the region are doing well.

What is Colombia doing to reduce the carbon intensity of energy production and consumption in the country?
Three-quarters of our generating capacity is hydropower, but it produces 80% of our energy. This means we have an energy matrix that is very clean, sustainable and competitive.

We want to continue down this road, and we are ready in regulatory terms to receive non-conventional renewable energy. We are going to have more developments in solar and wind power, which we are pleased about. Also, we are doing it through market mechanisms. We are not intervening in the market but rather allowing good projects that have merit to increase their participation in the energy matrix.

In terms of consumption we have a long way to go – especially in transport, housing and industry. What we have done is to pass a renewable energy law that will enable us to achieve major efficiencies in consumption. All the mechanisms are in place for consumption to become much more efficient.

A round-up of the WEC's World Energy Leaders' Summit is available on *www.worldenergy.org*

Attacks on oil and gas pipelines have been increasing in recent years. How disruptive are these attacks and what is the government doing to help prevent them?
Colombia has been involved in an armed conflict for more than 50 years. One of the main priorities of President Santos has been to bring the armed conflict to an end through negotiation. We have made greater progress in this peace process than ever before in history. We already have agreements on three of the five points of the agenda and we are now discussing the issues of justice and the surrender of arms. We are right at the end of the process.

No sector will benefit from an end to the conflict as much as energy. We believe that when this peace comes we are going to have undisturbed operations that will make us more competitive and make energy work better for the people.

You have just received the good news that Colombia's ranking in the new edition of World Energy Council's Energy Trilemma Index is significantly higher than in last year's. How has the country achieved this?
We were delighted and proud to receive the new ranking. In 2013 we ranked 24th; this year we will be 16th out of 129 countries. The WEC has mentioned that this is the result of serious, well-structured and carefully thought-out energy policies focusing on the long term.

These policies have allowed a good division of labour. The investors do what they know best – which is to devise projects, find resources and make plans to develop them – while the public sector has to focus on having a regulatory framework that allows investment to succeed in a responsible and competitive way, and on providing access to energy for those who still do not have it.

These are the three dimensions of the trilemma. We have an energy matrix that is secure and sustainable and we have made a lot of progress in coverage, which now stands at 96%; our priority today is the 4% of Colombians who still do not have access to energy. These Colombians are in the most remote and poorest places. Reaching them, and giving them access to energy, will be the best way to integrate them into development and help them start down the road to prosperity. ●

The connection of more houses to the natural gas grid will help reduce inequality, says the minister at a meeting in the town of Ituango.

Tomás González Estrada: "There has been a revolution in economic and social terms. Behind all this has been energy." (Photo: Getty Images for Oil & Money Conference)

The World Energy Council will be unveiling its 2014 World Energy Trilemma report with its annual country ranking, the Energy Trilemma Index, on 24 November in Washington DC, USA.
More on: http://bit.ly/1tTXpZE

EU agrees 11th-hour deal on 2030 energy/climate policy framework

European Union energy leaders worked late into the night on 23 October – at the European Council meeting – to thrash out energy and climate policies for the decade to 2030. The deal keeps the EU in the vanguard of climate policy in the run-up to treaty talks in Paris next year. Its centrepiece is a 40% cut in greenhouse gas (GHG) emissions by 2030.

EU leaders agreed on three other main 2030 targets: 27% of energy to come from renewables; a 27% improvement in energy efficiency beyond business-as-usual levels, which may be increased to 30%; and for member states to have interconnections of at least 15% of their generation capacity with neighbours

"This agreement is a vital step towards a global climate agreement," says Einari Kisel, WEC Regional manager for Europe."The 40% GHG emission reduction target is ambitious and trend-setting. However, differently from the WEC European Task Force's recommendations, the heads of state also agreed targets for renewables and energy efficiency. Those targets pre-define to large extent the means to be applied to reach more sustainable levels of GHGs, though these may not deliver best results."

Europe's energy resources and top producing countries: *http://bit.ly/10iO28W*

Outgoing President of the European Council, Herman Van Rompuy: "It was not easy, not easy at all, but we managed to reach a fair decision."

Honour restored to 'Fukushima 50', reports Japan's WEC committee

Japan's Asahi Shimbun newspaper has retracted a story claiming that hundreds of workers at the Fukushima nuclear power station left the site in defiance of orders during the tragic events of March 2011. The newspaper has apologised and sacked the editor involved – thus restoring the honour of the workers, reports WEC's Japanese Member Committee.

"Since the events at Fukushima in 2011, several Japanese newspapers have been relentless in their criticism of nuclear power and the power industry," says the committee in a statement prepared for World Energy Focus. "Asahi Shimbun, Japan's second-biggest daily, has been leading the anti-nuclear camp."

On 20 May 2014, it published a story based on leaked interview transcripts with Masao Yoshida, the late chief of the Fukushima Daiichi nuclear plant, operated by Tokyo Electric Power Company (TEPCO). The classified transcripts had been compiled by a governmental committee investigating the events.

Quoting the transcripts, the front-page story – headlined "TEPCO employees fled in defiance of plant chief's order" – claimed: " … four days after the Great East Japan Earthquake, 650 or so employees, or around 90% of those who were working in the Fukushima Daiichi Nuclear Power Plant, retreated to the Fukushima Daini Nuclear Power Plant, located 10 km south of Fukushima Daiichi, in defiance of an order from plant chief Masao Yoshida. A number of major foreign media organisations picked up the story.

On 11 September, the government disclosed transcripts of interviews with people involved in efforts to contain the impact, the Prime Minister and the Chief Cabinet Secretary at that time, and Mr Yoshida. Asahi Shimbun's president hastily arranged a press conference and admitted that the newspaper's story had been incorrect.

He commented: "We are retracting the article … We have concluded that the expression "fled in defiance of the plant chief's order" used in the article's headline and text is baseless … I offer my apologies … "

This climb-down was widely reported, including by Asahi Shimbun and newspapers abroad. In an opinion piece contributed to the New York Times following its report, the President of TEPCO, Naomi Hirose, wrote:

"The full transcripts made clear that our workers had been courageous in remaining on the job and bringing the facility under control — and that Mr Yoshida … had praised them for it. We at TEPCO believe strongly that the workers acted appropriately and diligently throughout …

"There is much remaining to do at Fukushima Daiichi, and our employees — together with our Japanese and international partners — continue to work under challenging circumstances. Our workers had been deeply wounded by the falsehoods reported about them, and they have been very much heartened by the validation they received."

NEWS IN BRIEF

RUSSIA AND UKRAINE AGREE EU-BROKERED GAS DEAL

After seven rounds of talks, Russia and Ukraine have at last agreed the terms of a $4.6 billion deal that clears the way for Gazprom to resume supplies to Naftogaz. The European Union played a crucial role in moderating the talks and helping Ukraine to prepay for winter gas deliveries. Ukraine now has to pay a preliminary $3.1 billion by the year-end to settle outstanding debts and a further $1.5 billion for 4 bcm of winter gas. *(See Issue 4, p5).*

IPCC PUBLISHES AR5 CLIMATE ASSESSMENT FOR POLICYMAKERS

The Intergovernmental Panel on Climate Change has published the final volume of its fifth seven-year climate assessment report (AR5): the Synthesis Report for policymakers. It warns that carbon-unabated fossil fuels must be phased out by 2100 if dangerous climate change is to be avoided. It also advises that the cost of climate mitigation and adaption measures will be much less if action is taken sooner rather than later. *(See related story: Implications of climate change for the energy sector http://bit.ly/U9i9Nd)*

US LNG PROJECT BREAKS GROUND

A second LNG export project – the Sempra-led Cameron LNG venture – has broken ground in the Lower 48 states of the United States, taking total capacity under construction to 30 million tonnes/year. On its own this would make the US a major LNG exporter. Several more projects are hoping to break ground over the coming year. *(See Issue 2, p6)*

As oil price slides to four-year low, is it a blip or a structural change?

Since the spot price of Brent crude oil peaked at $115/barrel in mid-June, it has slumped by around a quarter, hitting a low of less than $85/barrel in October. The sustained fall brings to an end a four-year period of relative stability in oil markets, during which Brent mostly traded at over $100/barrel.

The question many are now asking is whether this is likely to be a short-term phenomenon in the price of a notoriously volatile commodity, or whether it reflects a structural change in the market fundamentals that – for the most part – drive prices. The issue matters for many reasons, some of them obvious, some less so.

For oil-importing countries, lower prices would be a blessing – reducing import bills and the costs of subsidies, which in some countries absorb a large part of the state budget. Oil exporters, on the other hand, would see a reduction in income that for some countries would leave their budgets in deficit, depending on at what level of oil prices those budgets were determined.

Less obvious is the effect that lower oil prices would have on the prices of natural gas, especially in Asia where most imported liquefied natural gas (LNG) is priced on the basis of indexation to oil prices (usually the Japan Customs Cleared price, or JCC). So, for example, Japan, which has yet to bring back online a single nuclear reactor following the events at Fukushima, would benefit in two ways: cheaper oil and cheaper gas, imports of which have soared to offset the loss of nuclear capacity.

There is a widespread consensus that the oil price fall is the result of changes in both supply and demand. From a supply perspective, US oil production continues to rise sharply, thanks to the shale oil and gas revolution; production in Libya has recovered surprisingly quickly in recent months; Iraqi production has not yet been severely impacted by the troubles there; and OPEC producers, especially Saudi Arabia, have shown little appetite for cutting production to defend prices. Much will depend on what they decide when they meet in Vienna towards the end of this month. As for the question of whether low prices will rein in production, a recent IEA report reckons that almost all oil production is economic at a price of $80/barrel. Moreover, break-even prices fall over time as technology improves.

How the price fall will affect the strategies of the international oil and gas companies (IOGCs) will depend on whether prices continue to fall and how long the slump lasts. Most IOGCs are pretty conservative in the oil prices they assume when planning ahead.

From a demand perspective, the still shaky global economy means that consumption is growing at a slower rate than expected, notably in China where economic growth is slowing. Cheaper oil would help the global economy but any improvement would take time to manifest.

The lesson of history is that any attempt to forecast oil prices is almost certainly bound to fail. That said, there are good reasons to think that we are seeing structural changes that could lead to a period of softer prices, unless OPEC decides to defend them. But here too there has been a structural change. OPEC's share of the market continues to shrink. It will be interesting to see what gets decided in Vienna. ●

World's first commercial-scale CCUS power station starts up

The commercial use of carbon capture, utilisation and storage (CCUS) technology to produce clean electricity from fossil fuels has at last begun. Last month saw the start-up of a landmark coal-fired power project in Canada retrofitted with post-combustion CCUS systems to remove 90% of its carbon dioxide emissions. In an increasingly carbon-constrained world, it is a project that utilities around the globe will be monitoring closely – not least in the United States where the Environmental Protection Agency will soon finalise rules to limit carbon emissions from electricity generation.

SaskPower's rejuvenated Unit 3 at the Boundary Dam power station in Estavan, Saskatchewan will generate 110 MW of power, with CCUS removing 1 million tonnes/year of the carbon dioxide that would otherwise be emitted, the equivalent of taking 250,000 cars off the road.

The C$1.4 billion (US$1.24 billion) project – a partnership with the Canadian government – is a demonstration, at scale, of a technology that many believe will be crucial if humankind is to continue meeting its energy needs sustainably. Up to now, the feasibility of CCUS has attracted scepticism from many quarters. SaskPower says Boundary Dam will help determine whether CCUS is "technically, environmentally and economically viable". Captured CO_2 will be used to enhance oil recovery in oil fields. The rest will be stored in a deep saline underground geological formation being developed as the Aquistore Project. ●

CCUS technology – along with solar energy and energy storage – are the key uncertainties up to 2050, according to the WEC's World Energy Scenarios.
More on: http://bit.ly/1dfc9et

Boundary Dam will help to determine whether CCUS is "technically, environmentally and economically viable". (Photo: SaskPower)

EVENTS

WEC EVENTS

The energy sector and the 2015 agreement – pathways to success (COP-20 side event)

Lima, Peru
9 December 2014

This official side event at the UNFCCC climate conference will examine what the energy sector needs from the 2015 agreement to reach climate and energy goals. Featuring new IEA analyses and the launch of the Global Electricity Initiative (GEI) survey, this panel discussion will identify practical steps for the energy sector to implement a successful 2015 agreement.

Co-organised with the IEA, it will include Maria van der Hoeven (IEA Executive Director), José Antonio Vargas Lleras (WEC Vice-Chair Latin America & Caribbean), José da Costa Carvalho Neto (Eletrobras CEO) and Philippe Joubert (GEI Executive Chair).

Contact: Stuart Neil
neil@worldenergy.org

Africa Energy Indaba

Johannesburg, South Africa
17–18 February 2015

Africa Energy Indaba (AEI) is the foremost African energy event for energy professionals from across the globe. The event gathers international and African experts to share insights and solutions to Africa's energy crisis, while exploring Africa's vast energy development opportunities. It includes a conference and an exhibition.

Designated the WEC's African regional event, the AEI is presented by the South African National Energy Association (SANEA), the WEC national committee. It is supported by the African Union Commission and the NEPAD Planning and Coordinating Agency.

http://www.africaenergyindaba.com

Executive Assembly

Addis Ababa, Ethiopia
24–30 October 2015

The WEC's annual meeting. The full week of events will welcome the WEC community and representatives from the African and global energy sectors for open and private discussions. It will also host the WEC's governance meetings.

WEC MEMBER COMMITTEE EVENTS

Annual Conference of the WEC Spanish Committee

Madrid, Spain
20 November 2014

The event will centre on the energy geopolitics debate, the role of energy companies regarding human rights, and the future of energy in the Transatlantic Trade and Investment Partnership (TTIP).

Geopolitics has climbed high in the global energy discourse as the private energy sector works to implement the United Nations' "Protect, Respect and Remedy" framework.

Contact: Javier Jiménez Pérez
jjimenezp@repsol.com

World Energy Trilemma 2014

Washington DC, USA
24 November 2014

Marks the global release of the WEC's 2014 World Energy Trilemma report, which assesses how efficient countries' policies are in managing the energy trilemma: delivering energy securely, sustainably, and affordably.

It includes the world's most comprehensive ranking of countries' energy policies, identifying successes and aspects for improvement.

Register to attend on:
http://bit.ly/XLjjQe

Danish launch of Trilemma report

Copenhagen, Denmark
1 December 2014

The WECs Danish committee presents the new trilemma report and discusses Denmark's latest ranking. Co-organised with DI Energy.

Contact: Leif Petersen, lepe@dtu.dk

India Energy Congress

New Delhi, India
28–29 January 2015

Held under the theme "Securing India's energy future: integration and action", the congress will discuss issues of integrated energy governance and planning and the actions needed to secure energy to foster inclusive growth, while balancing the energy trilemma. Ministers, policymakers, industry leaders and other stakeholders will lead discussions while international experts will provide global perspectives.

Contact: Roshin Thomas
roshin@wecindia.in

Energy Top Executives Seminar

Tokyo, Japan
5 December 2014

Japan's energy industry has been going through big changes since the events at Fukushima. This seminar will look at the industry's challenges and actions. Participants will hear from the most senior figures from Japan's oil, gas, goal, electricity, and electrical equipment/machinery sectors. Organised every three years by the Japan Energy Association, the WEC Japanese member committee, this seminar is open to the public.

Contact: Hideaki Tanaka
tanaka@jea-wec.or.jp

SEE MORE WEC EVENTS ON
www.worldenergy.org/events/future

EDF Energy has already begun preparing the site for the new 3.3 GW Hinkley Point C nuclear power station. (Photo: EDF Energy)

EU approves state support for nuclear new-build in the UK

The long and anxious wait for a decision by the European Commission on proposed state support for the UK's new nuclear power programme is over. Last month the Commission said it had approved plans to subsidise the construction and operation of the new Hinkley Point C power station being developed by EDF and partners – though with significant modifications that will reduce the taxpayer burden and provide additional benefits to consumers if profits exceed expectations. The landmark decision has implications for other proposed nuclear power projects – in the UK and elsewhere.

The nuclear energy renaissance under way in the United Kingdom was set in motion six years ago by the then government. Various measures were proposed to smooth the path of nuclear new-build in the UK, but on one issue ministers were adamant: there would be no subsidies. It would be for private companies "to fund, develop and build new nuclear power stations ... including meeting the full costs of decommissioning and their full share of waste management costs". Ultimately this was not a realistic strategy. For while the nuclear industry likes to point to a trend in some countries to move from public towards private investment in nuclear energy, the reality is that EDF Energy's Hinkley Point C project would not have been able to attract the necessary finance without some form of state support.

So it was that last October the UK government and EDF Energy struck a deal under which a fixed price (linked to inflation) would be paid for the electricity, and a guarantee provided (for a fee) to underpin financing.

Not surprisingly, the deal attracted the attention of Europe's competition authorities, who wanted to be sure that if public money was to be spent on supporting nuclear new-build, this would be done "in line with EU state aid rules, which aim to preserve competition in the single market". After a year-long investigation, the European Commission (EC) said last month that "the UK authorities [had] demonstrated that the support would address a genuine market failure, dispelling [our] initial doubts".

That said, the EC was clearly pleased to have won significant concessions from the UK government and EDF Energy. Commission Vice-President Joaquín Almunia, then in charge of competition policy (a new Commission has just taken over), said: "After the Commission's intervention, the UK measures in favour of Hinkley Point nuclear power station have been significantly modified, limiting any distortions of competition in the single market. These modifications will also achieve significant savings for UK taxpayers." So what has been agreed?

Under a mechanism known as a long-term Contract for Difference (CfD), the sponsors of the Hinkley Point C project, which are likely to include Chinese investors, will effectively receive a fixed price – known as the "strike price" – for its electricity. This is set at £92.50/MWh (US$147/MWh), but reduces to £89.50/MWh (US$142/MWh) if another proposed nuclear power station goes ahead at Sizewell (because first-of-a-kind costs would then be shared). These strike prices will be indexed to inflation. Importantly, the price takes into account the costs of decommissioning and waste management. The main change imposed by the EC is a tightening of the "gain-share mechanism". This returns money to consumers if profits turn out to be higher than expected or construction costs lower than expected. An increase in the profit rate of 1% will generate savings of "more than £1.2 billion", said the EC.

The second main element of the support package agreed a year ago was a state guarantee to underpin the debt finance that the project sponsors will need to raise to construct the $16 billion project. The EC ruled that the initial guarantee fee should be increased by £1 billion.

The Commission's decision is important for the nuclear industry in Europe because it explicitly recognises the need for subsidies to facilitate private investment in nuclear power – at least in the UK. There is now a fair chance that the UK will bring its next nuclear project on stream in 2023 – nearly three decades after the last one. ●

ABOUT THE WEC

The World Energy Council (WEC) has been at the forefront of the energy debate for nearly a century, guiding thinking and driving action around the world to achieve sustainable and affordable energy for all. It is the UN-accredited energy body and principal impartial network, representing more than 3,000 organisations – public and private – in almost 100 countries.

Independent and inclusive, the WEC's work covers all nations and the complete energy spectrum – from fossil fuels to renewable energy sources.

JOIN OUR NETWORK

Join the debate and help influence the energy agenda to promote affordable, stable and environmentally sensitive energy for all.
As the world's most influential energy network, the WEC offers you and your organisation the opportunity to participate in the global energy leaders' dialogue.

Find out how you can:

- join a Member Committee;
- become a Project Partner, Patron or Global Partner;
- take part in annual industry surveys, study groups and knowledge networks;

by visiting our website and contacting our team on: http://www.worldenergy.org/wec-network

CONTACT US

WORLD ENERGY COUNCIL
CONSEIL MONDIAL DE L'ÉNERGIE
For sustainable energy.

World Energy Council
62–64 Cornhill,
London EC3V 3NH
United Kingdom
Tel: +44 20 7734 5996 Fax: +44 20 7734 5926
www.worldenergy.org