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General news

Talks in Durban on 11th December 2011 were successful in negotiating the primary terms for a new climate deal that will have legal force and stresses the importance for both developed and developing countries to cut their carbon emissions. Over the next 3 years, these terms will be agreed and will come into effect from 2020. This is only the first stage of commitment as the next few years will iron out how much and how fast each country should cut its carbon emissions. The agreement also outlined that developing countries will have access to finances from the developed nations in order to aid them towards developing a green economy (Harvey and Vidal 2011). Globally in 2011 wind power has had a 17% drop in global investment and solar has risen by 36% (Crooks 2012).

Europe

An international partnership has formed between **South Africa** and the **UK, Norway, Germany, Denmark** and the European Investment Bank in order to source funding for South Africa's renewable energy programme. South Africa needs to become a producer and a consumer of renewable energy and it is expected that over the next few years this sector will open up 27 000 jobs (ESI Africa 2011).

Middle East

Dubai launched a \$3.27 billion solar-energy project that expects to be operational by the end of 2013. The project will entail a 1000 megawatt solar park over 48km squared. The UAE aims to produce 5% of its electricity by 2030 (Hatoum 2012).

Legislation

China is likely to face a direct tax on carbon dioxide emissions by 2015. Proposals have already been submitted to the Ministry of Finance. The tax would begin at rates of \$1.59 per tonne of CO₂ and increase depending on the level of output. The largest emitters will have to cut their emissions by more than 20% by the end of 2015 (Reuters 2012).

Incentives for solar panels that were installed after December 2011 in the **UK** were due to be halved at the end of last year, yet continuing battles between the Government and energy groups have meant that any decision is likely to be put back to March (Moore 2011). On the 25th January the Government had its first appeal but lost unanimously against three judges ruling that its cuts to solar power subsidies were illegal. The government can still appeal to the supreme court (Carrington 2012).

North America

Discussions in December between Bill Gates and **China** to co-develop a new and safer kind of nuclear reactor went well. They expect that research and development over the next 5 years could result in a new technology that is low cost, safe and generates little waste. TerraPower, a Washington state-based company is developing a nuclear reactor that can run on depleted uranium and discussions have commenced with India, Russia and other companies (Associated Press 2011).

In December, **Canada** became the first country to announce its withdrawal from the Kyoto protocol. Canada is the largest supplier of oil and natural gas to the US and is keen to exploit the Alberta Tar Sands— sticking to the Protocol would prohibit this. However, the official reason given for its withdrawal was the treaty's exclusion of significant global emitters (Ljunggren and Palmer 2011).

The **US** overtook China to regain its position as the world's leading investor in clean energy. This change has come as a result of two key subsidy programmes that were introduced in 2009 to stimulate growth in the US economy. China had also encouraged rapid growth in preceding years, which have slowed down due to overcapacity (Crooks 2012).

The surge in production of biofuels, shale gas and unconventional oil in the **US** are projected to allow North America to become almost totally energy self-sufficient by 2030. This will likely arise from the exploitation of unconventional shale which until recently has been seen as too costly and difficult to exploit, however developments in hydraulic fracturing have enabled the release of these stocks (Chazan 2012).

Africa

A new financing deal for Kenya's largest wind farm will be completed in Q1 2012. The deal will allow a €600 million plant to be constructed at Lake Turkana. The project is expected to run at full capacity by the end of 2013. Projections see a production rate of 22% of **Kenya's** overall electricity (Alternative Energy Africa 2011).

Asia and Oceania

Energy ministers in **India** are planning to introduce more fiscal incentives to boost the local manufacturing of solar power equipment. Currently, foreign solar companies find it difficult to enter into the country due to import restrictions. Consequently, the solar program should enable a large domestic manufacturing base. The program aims to add 20,000 megawatts of solar power capacity to its grid by 2020 (Yep 2011).

After the Fukushima disaster, the Japanese Government ordered nuclear authorities to conduct tests on all reactors. Currently only 3 of the countries 54 reactors are operational. At the end of January, advisors started their review of safety tests, however there are fears that the reports are inadequate (McCurry 2012).

Company News

Europe

Motorola Mobility, Lego, Deutsche Bank and **Bloomberg** are among the first companies to sign up to a WindMade scheme; which will see them sourcing 25% of their electricity from wind power. The WindMade brand is sponsored by **Vestas** and is backed by the UN Global Compact, a business sustainability initiative of the UN and the WWF. Despite the higher cost of wind power over coal or gas-fired power generation, falling prices for turbines are reducing costs to more competitive levels. It is expected that the WindMade brand will encourage companies to increase their use of wind power (Crooks 2011).

One of the largest energy-focused private equity investors in the world, **First Reserve**, will announce a \$1bn wind farm joint venture with **Renovalia Energy**. The joint venture agreement will see **Renovalia Reserve** operating wind farms in Spain and Hungary, as well as developing projects in Canada, Romania and Spain. This news comes amid increasing interest from private equity and infrastructure groups in the renewable energy sector (Schafer 2011).

Sainsbury's will aim to become the first supermarket to send its food waste for anaerobic digestion in order to achieve the zero waste landfill ambitions. The British are falling behind the other EU member states despite efforts to encourage alternative methods of disposal through an increased landfill tax. Most other supermarkets are not far behind Sainsbury's (The BioEnergy Site 2011).

In Wales, a renewable energy firm has unveiled plans to construct a biomass power plant with a 40MW capacity creating usable energy for the south-east of England. At full capacity the plant will be able to power 250,000 houses through the creation of energy derived from straw (The BioEnergy Site 2011a).

Centrica has announced its acquisition of the remaining 81% of Econergy in a £6.5million deal that will take its stake to 100% of the company. This will enable customers of British Gas to reduce their carbon emissions through a portfolio of renewable technologies (The BioEnergySite 2011).

As a result of Merkel's plan to back out of Germany's nuclear power generation, **EON** is investing €7 billion in Germany's renewable energy projects. Merkel's plans aim to close 17 of the country's reactors by 2022. One of the country's renewable energy plans see the installation of 10,000 megawatts of sea-based wind turbines within a decade (Nicola 2011).

Despite the recognised move towards the alternative energy trend, **BP** is leaving the solar business after 40 years due to the sector's increasing unprofitability. Price pressures and oversupply after Chinese competitors increased production are contributing factors (Roca and Goosens 2011).

Lufthansa flew the first biofuel powered Transatlantic flight earlier in January 2012. Unlike the jatropha based biofuel used by other aviation companies, Lufthansa used plant-based biosynthetic kerosene. Currently the EU is awaiting approval of a European mandate that could require all flights landing in or taking off from EU countries to buy credits offsetting their carbon emissions (Woody 2012).

The Harper Adams University officially opened its green anaerobic digestion plant earlier in January this year. Funding for the plant came through a loan from the Higher Education Funding Council. The development is seen as an icon of inspiration for the agri-food community (The BioEnergy Site 2012).

North America

Following in the wake of Fukushima and a decreasing demand for uranium, the €1.8 million acquisition of Canadian mining company UraMin in 2007 has been an unsuccessful purchase for **Areva**, the French nuclear giant (Alternative Energy Africa 2011).

Africa

A Sino-Senegalese deal agreed in 2006 saw China inject \$71 million into a major energy plant in Dakar. This plant will be a 50MW electricity generation plant and a 300 MW solar powered plant. Other pipeline projects are 2 wind farms at Taiba Ndiaye and Saint Louis, a solar power station at Ziguinchor and a biomass plant at Ross Bethio (Alternative Energy Africa 2011b).

The CEO of **Viaspace Inc**, a clean energy company growing Giant King Grass as a low-carbon, renewable biomass crop, announced in November at the Biomass West & Central Africa Congress in Ghana that the Giant King grass will be a superior dedicated energy crop with high yield and energy content. The crop is expected to alleviate the imbalance in supply and demand of power and electricity within the Western and Central regions of Africa. It could also provide a sustainable biomass supply for strategic partners in Europe. It is believed that the yields and profitability of this grass platform exceed what is currently available as it has greater pest resistance, enhanced germination, efficient water use, uniformity and soil adaptation (Alternative Energy Africa 2011c).

Standard Chartered bank in Ghana will provide a \$5million loan supporting a biomass energy project in the country. The bank stated that the robust business plan and enthusiasm for sustainability and growth were the deciding factors on contributing to their decision (Alternative Energy Africa 2012d).

Powerway Renewable Energy Co.; a Chinese solar manufacturer has announced the opening of production facilities in South Africa that will cost \$1.25 million. The company is planning to use local human resources to develop skills needed for the solar farm (Alternative Energy Africa 2012e).

The **Ethiopian Electric Power Corp.** will be restructured in order to increase its power generation capacity. The restructuring will include an expansion into alternative energy development. The Ethiopian government is also in the process of developing a draft feed-in tariff (Alternative Energy Africa 2012f).

Middle East

Better Place LLC (a US based start-up) has delivered its first wave of electric cars to Israel. The company is partnered with Renault SA to establish electric car charging networks and battery exchanging stations. Bloomberg predict that plug in hybrids will make up 22% of sales by 2030 (Ackerman 2012).

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