Cleantech en-vision

The quarterly newsletter of Cambridge Cleantech

May 2013

In this issue…

Sector round-up…

Policy

Low-carbon

Enterprise and finance

Renewables

Other topics

UK can be a "global showcase for green innovation", says Cameron

David Cameron spoke at the launch of the government's Energy Efficiency Mission on 4 February. He said the UK must do what is right for both the planet and the economy, in one of his strongest green speeches as prime minister - one clearly intended to answer both critics who believe government is divided on green issues, and those who have complained that energy efficiency is too far down the political agenda.

Cameron insisted making energy sources more sustainable, lowering energy consumption, and making the economy more resilient to energy price shocks was not a "drag on growth", but a "vital" part of it. He added that the UK was already leading the way on energy, investment and jobs in the green sector, and went on to laud some of the coalition's achievements, including the Green Deal energy efficiency scheme and the Green Investment Bank. But he said it is important that investors understand the full package and take advantage of what is available in Britain.

Climate change minister Greg Barker also spoke at the launch. He said the government's aim was to make the UK "the most energy efficient economy in Europe" not because it is a "nice to have" but because it is an essential part of how the UK is going to compete in the global market. "This is all about competition. This is all about growing efficiency, not just in the energy sector but as part of a holistic approach to the efficiency of the wider economy", he added.

But Barker acknowledged that there is a problem. The UK has a host of policies dealing with energy efficiency, "Yet despite that, historically, energy efficiency has been ignored, relegated to second tier status by successive governments for decades. And that has to change". He added that the aim of the Energy Efficiency Mission is to "pull all these strands together" and "pull in all the key participants in the energy efficiency economy".

DECC

Cuts to solar PV FiTs confirmed

Ofgem announced new rates for solar feed-in tariffs (FiTs) on 28 February, confirming that incentives for installations with a capacity above 50kW will see a reduction of 3.5% from 1 May 2013. However, installations with under 50kW will remain at the same level under the government's degression mechanism.

Solar Trade Association has shown concern over the 250kW-5MW FiT band. It believes that by reducing support from 7.1p/kWh to just 6.85p/kWh in May will inhibit growth, "putting this important sub-sector of solar further out of reach".

The government also announced, in accordance with the Feed-in Tariffs (FiTs) Order 2012, changes to the operation of FiTs from 1 April 2013. The 26 February determinations set out the amount of electricity deemed for export from an accredited FiT installation that is not registered under the Balancing and Settlement Code. For the fourth year of FiTs 50% of generation from combined heat and power (CHP), Anaerobic Digestion (AD), solar photovoltaic (PV) and wind will be deemed to be exported to the grid. According to this update hydro will be deemed to have exported 75% of the generation meter reading. These percentages are only applicable to those sites without separate export meters.

The value of electricity metered for net export is 4.64p/kWh reflecting an increase in RPI of 3.5% above the value announced as part of the government's response to Phase 2a of the comprehensive review of the FiTs scheme.

DECC also determined the qualifying costs for small FiT licences, those suppliers with fewer than 125,000 domestic customers (250,000 customer accounts), and large FiT licensees (with at least 125,000 domestic customers). Large FiT licensees can recover £10 for each during Year Four, and £15 from on-going generators. Small FiT licensees are able to recover £25 in costs for new generators and £30 per on-going generators.

Ofgem

European Commission consults on 2030 targets

The European Commission set out the challenges facing its target to ensure 20% of renewable energy in gross final energy consumption by 2020 as part of a Green Paper issued on 27 March.

A 2030 Framework for Climate and Energy Policies noted that, while the introduction of indicative targets between 2001 and 2010 had seen renewables' share in EU consumption grow by 4.5% per annum, growth would need to average 6.3% each year if the overall objective was to be achieved. Along with major infrastructure investment, this would require ensuring renewable energy sources became more cost-efficient, so as to limit the use of support schemes to where they were most necessary. But the paper argued that for most member states new measures would be needed to meet 2020 targets, as such support schemes had recently been scaled back, and access to finance had become more difficult in the context of the economic crisis.

The paper launched a consultation on whether targets for renewables, along with emissions and energy saving, should be implemented for 2030. It noted that any target for renewable energy would need to be carefully considered, as many technologies within this timeframe would no longer be in their infancy and would be increasingly competitive with other low-carbon technologies. Consideration would also need to be given to whether an increased share of renewables could instead be achieved through the EU Emissions Trading Scheme and regulatory measures to create the appropriate market conditions.

There was, the Paper noted, broad consensus that interim targets for emissions reductions would be necessary to reach the targeted 80%-95% cut in 2050. The issue for policy-makers would be determining a target level for 2030, though the Commission's *2050 Low Carbon Economy Roadmap* suggested a 40% reduction would be the most cost-effective. But, while the Roadmap argued this objective could be achieved without unduly increasing costs for the energy system, mobilising the funds necessary to cover the capital costs for up-front investments would be a challenge.

Discussions on a 2030 energy saving target must, the Commission said, be seen in the context of the adoption of the *Energy Efficiency Directive*. It would be necessary to consider if the metric for such a target should continue to be absolute energy consumption levels, or whether a relative target related to energy intensity would be more appropriate. The paper noted that an absolute target might better ensure the overall savings objective was met, but a relative target would take into account the dynamics of the EU economy and the reality of economic development. Consultation respondents were asked to consider to what extent energy markets, through the price signal and demand response, would themselves incentivise energy efficiency improvements, including behavioural change of consumers.

The paper considered the coherence of national policy instruments. Member states, it was noted, had substantial room for manoeuvre in implementing EU legislation for renewable energy and energy efficiency. However, some stakeholders had criticised the consequent lack of consistency and warned national measures should not lead to the fragmentation of the internal market. They argued policy measures should place "a strong accent" on investments in infrastructure that would deepen EU market integration and strengthen security of supply. The Commission noted the 2030 policy framework would therefore need to "strike a balance" between "concrete implementing measures" at EU level and maintaining member states' flexibility to meet targets in ways that were most appropriate to national circumstances.

Responses are invited until 2 July.

European Commission

Cambridge Cleantech Members Scoop Shell Springboard Awards

A trio of Cambridge Cleantech member companies have each secured a prestigious Shell Springboard Award. Arriba Cooltech, The David Ball Group and Ventive have all been successful in this year's round of awards.

In the case of Arriba, Judges were impressed by the company's design for capturing waste heat from ventilation extracts and refrigeration condensers to achieve very high year round efficiencies from their CO2 heat pump.

The company’s managing director Steve Connolly said that his company had seen a surge in enquiries from building managers across a range of sectors who wanted to recycle unwanted heat and in some cases to move entirely away from boiler based heating systems. He went on to say that the Shell award was a validation of his plans to establish Arriba Cooltech as a leading provider of joined-up heating and cooling solutions.

Shell Springboard is a programme designed to promote the growth of the low carbon economy in the UK.

Over £3.2 million of EU funding available to small to medium businesses in the East of England through the Low Carbon KEEP programme

Small to medium businesses in the East of England have an opportunity to apply for more than £3.2 million of European Regional Development Fund (ERDF) funding, designated to support SMEs in the region by helping them reduce resource consumption, develop new products, increase profitability and purchase capital items such as equipment and software.

With £3.2 million to invest, the Low Carbon KEEP programme, which is managed by Anglia Ruskin University, has already funded more than 40 successful projects and provided £975,000 of funding to SMEs. The Low Carbon KEEP team is eager to support more small to medium-sized businesses in an effort to reduce carbon emissions, increase profitability and improve competitiveness.

LOW Carbon KEEP

EUROPEAN UNION
Investing in Your Future
European Regional Development Fund 2007-13

ERDF
low carbon economic growth in the East of England

For information about the Low Carbon KEEP programme Please visit the websiite, phone 0845 196 4310 or email lowcarbon@anglia.ac.uk

Big Challenges, Creative Solutions

Creative thinking during the redesign of individual and global systems is crucial to meet the scale of complex challenges posed by resources scarcity and environmental limits.

On May 15th 2013 the Global Sustainability Institute (GSI) will host its 1st Annual Research Conference on the theme of "Big Challenges, Creative Solutions". The innovative conference structure will provide a platform for open discussion and genuine collaboration between actors across academia, politics, business, finance, science, economics, health, education, art, the creative industries, and beyond. Our aim will be to develop creative cross-sector solutions to delivering a sustainable future.

Confirmed speakers include; Jane Davidson - former Minister for Environment and Sustainability in Wales (Keynote), Eileen Donnelly - Head of CSR at John Lewis, Deborah Doane - Director of the World Development Movement, Dr Brett Day - Economist at The University of East Anglia, and Craig Bennett - Director of Policy and Campaigns at Friends of the Earth.

Register online now. For further information visit our website or contact gsi-info@anglia.ac.uk

Clean and Cool Missions 2013

Clean and Cool Missions 2013 are entrepreneur Missions organised by The Long Run Venture and CoSponsorship Agency, in partnership with Technology Strategy Board and UKTI.

The Missions look to inspire and equip delegates to scale and accelerate their businesses. We are looking to recruit 40 of the UK's most promising, innovative cleantech SMEs from a range of sectors including renewables, future cities, agriculture and smart grids. On each Mission we will meet potential investors, partners and customers as well as explore local innovations and regional success stories.

Following previous successful Missions to San Francisco in 2010 and 2012 this year we are offering the opportunity to travel to Brazil (November) or Colorado (December). The process is competitive and we welcome applications before 8th July (Colorado) or 31st July (Brazil).

For more information go to our website, follow us on Twitter @CleanandCool, or email Guy Pattison, Organiser at guy@thelongrunventure.com

CLEAN AND COOL MISSION 2013 BRAZIL

CLEAN AND COOL MISSION 2013 COLORADO

Accelerating Growth in Overseas Markets
www.cleanandcoolmission.co.uk
Brazil: 30 Oct - 7 Nov
Colorado: 30 Nov - 7 Dec

The Travel for Work Partnership can help your business get there

The Travel for Work (TfW) Partnership provides travel solutions to employers within Cambridgeshire via the promotion of car sharing, cycling, bus use and rail travel – all of which helps both businesses and employees save money whilst reducing congestion.

Workplace Sustainable Travel Grant

If your business is based within the corridors between Cambridge to Ely and Cambridge to Huntingdon, we have up to £6,000 match funding to help improve on site facilities such as new cycle parking, pool bikes, shower facilities, lockers, etc.

You can find out more online by going to the TfW website
Some of the other services offered by TfW include:

- Free bespoke travel surveys
- Train discounts / Cycle shop discounts
- Post code mapping of employees to identify potential car sharing matches and proximity to transport routes
- Help with developing travel plans
- Cycle training
- Events at your workplace to promote sustainable transport

Membership is free of charge. Please get in touch to discuss on 01223 715550 or email info@tfw.org.uk. For more information visit www.tfw.org.uk

Funding and rewards – Putting money in your business and taking it out again

The Startup Masterclass programme supports early-stage businesses located in the East of England. Its overall aim is to provide a means for promoting an inspiring culture and a "*can do*" environment for the creation and growth of such ventures. Starting and growing a business is as much about having innovative ideas as it is about execution

The next event details are:

When: Monday 20th May, 6pm – 9pm

Where: ideaSpace, Hauser Forum, 3 Charles Babbage Road, Cambridge, CB3 0GT

For startups and small SMEs financial management is a fundamental element to consider right from the beginning.

This seminar will consider some key aspects, such as:

- HMRC & Businesses – What are the key decisions?
- Models of funding
- How do we finance the business?
- How do I manage cashflow?
- How much is our IP worth?
- How can I use EIS and R&D Tax Credits?

The talk will be given by Darryl Hazelhurst, Hamilton Blake

As usual, there will also be plenty of time for Q&A so please bring your own burning questions to put to our speaker. Join us before the event from 6pm for nibbles and refreshments. Then stay around after the talk for more networking & pizza until 9:30pm. Book online here.

While the programme focuses primarily on start-ups and SMEs with 10 employees or less, it will also benefit freelancers & individuals considering launching their own business venture. The programme is supported by: ideaSpace Enterprise Accelerator, Cambridge Clean Tech, CamTechNet, Centre for Entrepreneurial Learning and CUTEC

Energy Bill falls short of investor expectations, says Ernst & Young

The *Energy Bill* is no longer viewed by the investor community as a "transformative" piece of legislation, according to Ernst & Young. The company's latest *Renewable Energy Country Attractiveness Indices*, published on 26 February, put the UK in sixth place, with China, Germany and the US in the top three positions. In the Wind Indices the UK climbed one place to fourth, while in the Solar Indices it remained in 22nd position.

Ernst & Young environmental finance leader Ben Warren said a series of delays, political squabbling and the "over-hyped once in a generation chance" to reform the UK's energy market had failed to meet the sector's expectations. The main disappointment for investors was, he added, confirmation that a decarbonisation target for the power sector would not be set until at least 2016, though the Treasury's plans to offer tax breaks for shale gas exploration had also caused concerns.

Warren said the risk of a voter backlash had forced the government to be more candid about the rising annual cost of renewable energy investment in consumers' bills. But he noted the government would need to "tread carefully" to ensure rising electricity bills did not pose a threat to consumers' support for renewables, given the sector's critical role in securing the UK's future energy supply.
E&Y

UK public "prefers low-carbon generation"

Depending on low-carbon sources to meet the UK's future energy needs is supported by nearly eight in 10 (78%) of the UK population, according to Yougov polling.

Published on 10 February, the survey revealed just over a quarter (26%) of the public backed utilising nuclear power, while wind, and wave and tidal technologies were prioritised by just under one in five (18%) people. Less than one in 10 (7%) people demonstrated a preference for conventional gas and coal power.
Yougov

BIS takes equity stake in six windfarms worth £50mn

The Department for Business Innovation and Skills (BIS) announced plans to take an equity stake worth £50mn in six windfarms - five onshore and one offshore - through a "cornerstone" stake in a renewable energy fund called Greencoat UK Wind. This is an infrastructure fund that announced plans to float on the London Stock Exchange. It is seeking to raise £205mn and currently has backing from BIS and SSE of £93mn combined.

BIS declared the government's investment in Greencoat UK Wind aimed to initiate the additional private sector investment in the renewables sector needed to make the transition to a green economy a success.

Green Investment Bank makes first direct offshore wind investment

The Green Investment Bank announced on 22 March it had invested £57.5mn in the Rhyl Flats offshore windfarm. The acquisition of a 25% stake in RWE AG's project marks the Bank's first direct equity investment in the technology. Chief executive of the Bank Shaun Kingsbury said the stake in Rhyl Flats was an "ideal investment as it helps to develop the market".
GIB

Wind industry celebrates record-breaking day

RenewableUK has celebrated wind contributing more 5GW "consistently over a 24 hour period".

From 9.30pm on 21 March through the following day, wind generation produced sufficient power to meet over 10% of the UK's total electricity needs. In addition a record level of generation for a one-off half-hour period was recorded at 3.30pm on 22 March, when 5.296GW of electricity from wind was present on the grid. There was, in addition, a further 2GW of generation from distributed wind.

Stakeholders claimed this level of generation contradicted the argument that wind power could not deliver during cold snaps. Chief executive of RenewableUK, Maria McCaffery said the latest figures show "wind is a stable and reliable source of power".
Renewable UK

Solar PV to be part-financed under the Green Deal

The government has revealed how the Green Deal energy efficiency finance scheme can be used to part-fund the cost of installing solar photo-voltaic (PV) systems, which can generate income under the government's feed-in tariff (FiTs) scheme.

The new factsheet *How the Green Deal and Feed-in Tariffs work together*, published on 2 April, explains in detail how Green Deal loans can support installation fees for solar, wind and micro-combined heat and power generation. This effectively lowers the upfront costs of purchasing solar PV systems; one of the key barriers for small businesses and domestic users to installing energy efficiency and renewable generation measures.
DECC

Energy-from-waste competition shortlist confirmed

The Energy Technologies Institute (ETI) confirmed on 8 April it had drawn up a shortlist of three companies competing to design the most economically viable energy-from-waste gasification demonstrator plant possible.

The aim of the £2.8mn project is to show how such a plant could create energy from waste at efficiencies higher than previously produced by the industry. Advanced Plasma Power, Broadcrown, and Royal Dahlman have each been commissioned to design and develop a plant to demonstrate an integrated system that would be commercial at 5MWe-20MWe. The chosen plant could be in operation by 2016, and the expectation is that, once completed, it would operate as a demonstration plant for up to four years.
ETI

Fallon is new energy minister

Michael Fallon has been confirmed as the new energy minister after John Hayes was moved to the Cabinet Office. Fallon was appointed business minister in September 2012, and will continue in this role despite his new responsibilities at DECC. Speaking after his appointment, Fallon said both departments shared a focus on business and the economy, and he was delighted to have the opportunity to build on their "cross-cutting work". Energy and climate change secretary Ed Davey said on 28 March that Fallon would bring with him a wealth of business experience, while helping to "cement" links across government. He assured the Coalition would continue to implement policies to which it was committed, ensuring security of supply, limiting consumers' bill increases, and reducing emissions to tackle climate change.
DECC