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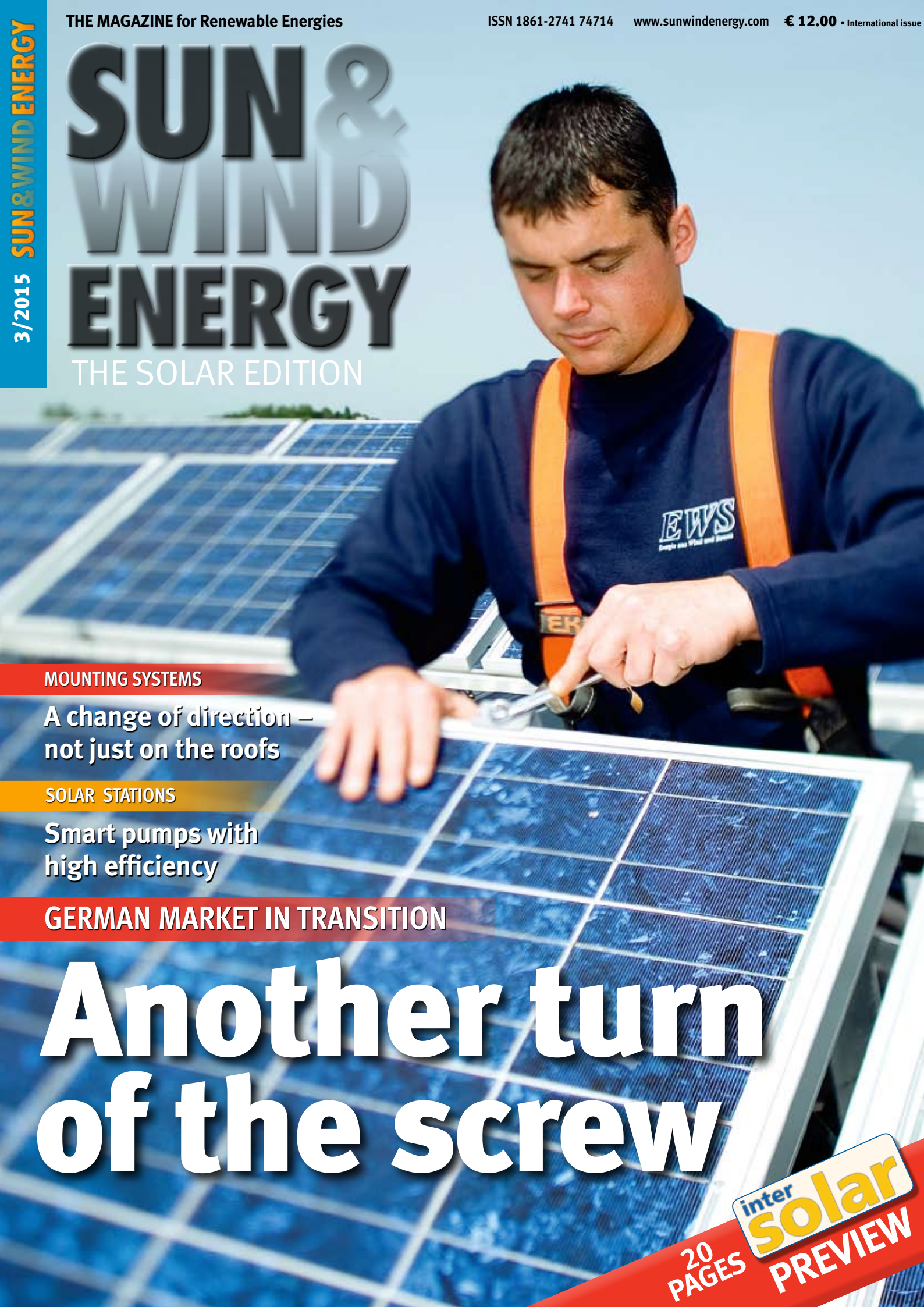
THE SOLAR EDITION



MOUNTING SYSTEMS

A change of direction – not just on the roofs

SOLAR STATIONS

Smart pumps with high efficiency

GERMAN MARKET IN TRANSITION

Another turn of the screw

20 PAGES inter solar PREVIEW

Don't let them freeze

Not everyone in the UK can afford to keep the frost away from their homes.

Photo: Pixabay/Iwona_Olczyk

Millions of Europeans struggle to pay their energy bills or to keep their homes warm. Energy affordability is a key problem for the renewable energy industry that has sometimes been used to block its progress. Yet sustainable energy technologies can provide long-term solutions, as long as they do not generate more backlash.

A satirical video parody of the hit song from Disney's film Frozen, "Let It Go" launched in February by British campaign group Energy Bill Revolution proved an unexpectedly big success. Aimed at raising awareness of Britain's fuel poverty problem, the 'Let Them Freeze' video went viral in the UK, reaching over one million views.

The problems highlighted in the video are real. If a household is unable to afford basic levels of energy for adequate heating, cooking, lighting or use of appliances, this can also lead to a wide range of illnesses such as depression, asthma and heart disease. Every winter thousands of people die in the UK because of the cold homes crisis, caused by inefficient, old housing stock and unaffordable energy bills.

And the problem is far from being solely British. Harriet Thomson, founder of the EU Fuel Poverty Network, says that 58 to 64 million people across the European Union were classified as being in fuel poverty in 2012. The number of people in the EU who cannot keep their home warm or who are affected by damp and rot had been declining until around 2008-2009. Since then, however, numbers have been swelling again, partly because of the economic crisis.

Renewables as a scapegoat?

Some politicians and parts of the press have blamed renewable energy incentives for unaffordable energy bill costs. Regardless of the scarce evidence, this has affected the debate in several European countries. Speaking at the recent Solar Finance and Investment Conference in London, the CEO of Paradigm Change Capital Dima Rifai said: "The price the public is willing to pay for renewables has gone down".

In Italy, ahead of the retroactive changes on renewable incentives in 2014, much of the debate played out in the press and in policy circles addressed the affordability of the incentives. A lot of it was about the alleged costs to small and medium-sized enterprises, but there were also concerns on cost to consumers. The country's renewable lobby AssoRinnovabili said it is "undeniable" that the cost of renewable incentives adds to the average family bill around € 90 a year. However, the 55 % increase in the average electricity bill in the previous ten years has been mostly due to the increase in oil and gas prices, it added. The benefits of renewables in terms of reduced wholesale prices and reduced imports of

fossil fuels for the country's economy were worth the cost. Yet this argument did not work to stop the policy changes.

In the UK, a similar debate was played out in 2013-2014 after the leader of the opposition Ed Milliband, promised that a future Labour government would freeze energy bills. This led to a big reaction in the right wing press and a panic-like response from the Conservatives in government. High profile politicians were said to have talked of renewable and energy efficiency incentives as "green crap". As a result, the government made considerable changes to energy efficiency programmes. According to the UK Association for the Conservation of Energy (ACE), there has subsequently been an 80 % drop in help available for those who live in poorly insulated houses and who cannot afford to heat their homes.

Yet rhetoric on solving the fuel poverty crisis remains high. The Secretary of State for Energy and Climate Change – the Liberal Democrat Ed Davey – used the recent Ecobuild event in London as a platform to launch a new government strategy to tackle fuel poverty – the first since 2000. The choice of platform for the launch reflects the fact that many companies in this sector do have good solutions to offer.

Clean energy responses

Meanwhile, some are marching ahead and promoting sustainable energy options against fuel poverty. Brighton and Hove Council is installing solar PV on 145 council owned homes for poor or elderly residents, contributing to reducing their energy bills. More than 17,000 households in the city are living in fuel poverty – an increase of almost 20 % from 2011. Similar initiatives have been running around the country, including as far north as Scotland.

An EU-funded project – ELIH-Med, or Energy Efficiency in Low Income Housing in the Mediterranean – has shown the potential for energy efficient refurbishment of low income houses in Italy, Spain, France, Malta, Cyprus and Greece. Many buildings benefited from solar thermal installations on the roof as well as comprehensive energy efficiency interventions, which led to considerable energy savings.

According to Ascanio Vitale, Chief Executive of sustainable energy consulting firm Stop CO_2, one interesting and cost effective option to reduce fuel poverty could be solar district heating. "This has seen big growth in Northern Europe, particularly in Denmark, but it is still underestimated," Vitale said. This technology allows seasonal thermal storage, providing low cost renewable energy all year long, he added.

Unintended consequences

Speaking at the solar finance conference, the Head of Renewable Energy Finance at the Renewable Energy Association Rob McGrigor said solar PV cost reductions and the fact this is the first technology to reach grid parity are the demonstration that subsidies have worked to do what they intended to do. And that the solar industry should become more effective in making this point to politicians.

Yet many observers say it is also crucial for the renewable energy industry to listen to concerns about fuel poverty and energy affordability more generally, to avoid another backlash. In the UK, the Renewable Heat Incentive has been recently criticised in the left wing press for allegedly promoting profligate use of oversized, inefficient biomass boilers by wealthy people, while doing very little to improve the situation of those in fuel poverty.

According to Thomson, when designing policy, it is important to understand the implications that specific funding mechanisms may have on households at risk of energy poverty, she said. "If funding is provided via levies on consumer energy bills, this is regressive as the poorest households will pay proportionally more than richer households," she said, arguing that schemes funded through general taxation would be the most progressive. Vitale suggests that renewable energy incentives could be differentiated by income levels of the beneficiaries. This would avoid a situation where only rich people benefit. "In one way or another, poor people at the moment are losing out," he said. "For instance, a poorly insulated house requires the same thermal power as a much bigger luxury dwelling, while the marginal cost to the end user widely differs."

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