



Visionary: The CIS Tower in Manchester, England, a noted local landmark, is clad with photovoltaic panels. The PV modules that cover the tower's entire surface generate 180,000 kilowatt-hours per year.

What would Adam Smith have said?

British energy policy: Long known for its opposition to the Continent's feed-in tariffs, the UK has adopted a proposal in its Energy Bill to implement the policy that has made Denmark, Germany, and Spain leaders in renewables. But disputes over specifics could still drive a wedge into the coalition behind feed-in tariffs, and the policy could still be poorly designed.

Vijay Vaitheeswaren, the author of "Power to the People" and energy correspondent for the British weekly "The Economist", is Indian-born and MIT-trained. He knows his way around the English-speaking world. And his energy views are progressive. For instance, in his book he points out the benefits of higher energy prices, which make energy efficiency measures pay for themselves faster. Germany is one country that has implemented such "eco-taxes". So when asked at a conference in Germany in October of 2006 what he thought of German energy policy, including the feed-in rates that make electricity slightly more expensive to pay for renewables, his answer was as short as it was surprising: "Stalinist".

It seems that the Anglophone world has a different view of markets than the European continent does. The 20-year guarantees on prices for distributed renewables

generators sound to Anglophone ears like the five-year plans of central communist planning. While the success of feed-in tariffs (FITs) in such countries as Denmark, Germany and Spain have obviously led to the greatest market success for renewables, the British and Americans charge, as Vaitheswaren himself put it, that FITs "pick winners": prices are fixed in advance (anathema to the principle of the free market) to make each source of renewable energy equally profitable, whereas the UK's system of Renewable Obligations (ROs) and the US's Renewable Portfolio Standards (RPSs) allow utilities to choose the least costly option. Thus, renewables can compete with each other just as gas, nuclear, and coal compete for power generation.

The Continent counters that the British Wind Energy Association's categories of projects "submitted," "approved,"

and "rejected" sound more like government intervention than a free market. And Europeans repeatedly point out that FITs, though they may pay high rates (the Economist called them "madly generous subsidies"), actually cost less overall than ROs and RPSs, which are overly bureaucratic. The EU itself has published this conclusion, as has the policy-neutral International Solar Energy Society based in Germany. Indeed, the UK's Stern Review of 2006 wrote that FITs "achieve larger deployment at lower costs." So there have been proponents of FITs in the UK all along – including several MPs. And in 2008, some institutional changes allowed them to add FITs to a new Energy Bill.

New leadership

Just a few years ago, the UK was trying to have FITs thrown out of Europe altogether via the EU. Former Business Secretary John Hutton (MP Labour) and former Energy Minister Malcolm Wicks (MP Labour) were two of the main drivers behind this movement. But the Department of Trade and Industry where Wicks worked changed its name in mid-2007, and energy matters moved to the Department for Business, Enterprise and Regulatory Reform (BERR). At this point, energy was still handled as a subcategory of industry. The business world in the UK argued that nuclear and coal are cheaper than renewables, so solar went nowhere.

Priority was placed on renewables when the Department of Energy and Climate Change was spun out of BERR and the Department for Environment, Food and Rural Affairs as part of Prime Minister Gordon Brown's response to the financial crisis on October 3, 2009 – the same day that the US passed its Bailout Bill. With Ed Miliband, brother of the current Secretary of State for Foreign and Commonwealth Affairs David Miliband and son of Marxist political theorist Ralph Miliband, at the helm, everything suddenly went quickly. Within two weeks, Ed Miliband had announced a more ambitious target: not a 60 percent reduction in carbon emissions by 2050, but 80 percent. And within two months, the mechanism to meet that target changed when FITs were added to the UK's new Energy Bill.

But Miliband was not alone. A number of MPs, primarily Adam Simpson (Labour), helped out, and the website wesupport-solar.net lists more. Simpson argued that

Germany's feed-in rates have allowed it to install 200 times more solar than the UK, though the two have similar solar conditions. His campaign was successful not only because energy policy was cleverly promoted as a football match that Germany is winning 200:1, but also because the UK now has numerous organizations that support feed-in rates.

Widespread coalition

Miguel Mendonça, a campaigner for the World Future Council and author of the book "Feed-in Tariffs: accelerating the deployment of renewable energy" does not believe that the Anglo world is as ideologically opposed to the governmental pricing behind FITs as Vaitheswaren is. "There are just a few bad apples in important positions, and we have to find out where the rest are now that the main ones have been removed," he sums up the future focus. His colleague Leonie Greene of the UK's Renewable Energy Association says that the coalition behind FITs includes, obviously, the solar sector and the National Farmers' Union (biomass producers), but also – less obviously – the British Retail Consortium. "Companies like Tesco and Wal-Mart are keen on 'greening' their image by investing in renewables," she explains.

Dave Timms of Friends of the Earth UK adds a number of additional supporters from outside the renewables sector, such as the Trades Union Congress, the Royal Institute of British Architects, and the Institution

of Civil Engineers, all of which understand that renewables create well paying jobs. He says he has definitely confronted "strong resistance to price setting" and calls the UK government's approach to renewables "verging on hostile" – until recently.

Sebastian Berry of British PV and solar thermal firm Solar Century says the British public has itself become impatient. "The Labour Government under Blair said that it wanted to catch up with Germany and Japan, but that promise has not been fulfilled." While he agrees with Mendonça that the British are open to FITs, he says the sales pitch is still tough: "There is a lot of background noise in the UK," by which he means misunderstandings about the cost and performance of solar. Timms agrees: "We have to stress the ease of integration of PV, not only in the grid, but in the built environment. The requirement for a permit if you want to put solar on your roof was done away with, for instance."

ROs vs. FITs

The details have yet to be worked out; we are still only talking about a proposal for a new policy, not a fully fledged law. No one believes that FITs will completely replace ROs. By the summer of 2009, feed-in rates are to be specified for each renewable source as an additional policy for distributed generators; ROs would still apply for utility-scale projects.


Already, BERR has come out against FITs, which can no longer be ignored. The

executive summary of its UK Renewable Energy Strategy Consultation says, "while feed-in tariffs could ... have theoretical financial advantages, these benefits could be within the margin of modelling error and would be small for the scale of deployment required" – not exactly an enthusiastic assessment. BERR adds that implementation will take time, possibly leaving too little leeway for 2020 targets "due to the delay and uncertainty that a change of support scheme (which could take several years to introduce) would necessarily entail." Sebastian Berry believes that, even if an agreement is reached next summer for specific rates, the new rates would probably not take effect until April of 2010 at the end of the fiscal year for Phase Two of the UK's Low-Carbon Building Programme.

BERR also adds an argument familiar to FIT proponents in the US: the policy might be great for Germany, but is ill suited to the UK (the San Francisco Chronicle recently published an article entitled "Feed-in tariffs – right for Germany, wrong for California"). Admittedly, BERR has a diplomatic way of saying FITs are antithetical to free markets: "There could also potentially be difficulties in the operation of feed-in tariffs in the UK's market-based system." BERR's conclusion? "This document therefore concludes strongly in favour of maintaining the RO for large-scale electricity while recognising that we need to continue to improve its efficiency."

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And Dave Timms says it was easier to get FITs on the agenda in 2008 because the revised ROs “already conceded that different renewable sources required different levels of support.” Originally, the principle behind ROs was that the cheapest renewable project would be awarded the contract. But a few years ago, the UK realized that its ROs were in fact picking winners by promoting mainly the least expensive renewable energy source: wind. The solution was to specify four different categories of renewables (some RPSs in the US also set aside a separate target for solar, effectively producing two rates). From there, the philosophical step to FITs is indeed small, as Timms points out.

Support for ROs should nonetheless not be taken lightly. The British Wind Energy Association (BWEA) itself still supports ROs and has tried to have a lower cap put on projects eligible for FITs. At present, a five-megawatt ceiling is proposed, which would essentially be sufficient for almost all solar roofs and facades, though perhaps not large ground-mounted arrays. But the five-megawatt cap would mean that community wind projects would have to stop at three or four turbines. Above that, ROs apply.

Why would the UK’s wind lobby support such a cap? A campaigner who wished to remain anonymous believes that the BWEA essentially represents large energy corporations – the ones who benefit most from ROs and therefore tend to see FITs as an enabler for small competitors. “Wind is the reserve of big business in the UK,” the campaigner stated. If FITs are to be implemented, the public will have to be convinced that ROs do not apply to them, but FITs would. As Leonie Greene puts it, “ROs are very complicated mechanisms, and people don’t understand them.” This debate may be easy to win.

At any rate, all companies and organizations in the UK’s solar sector seem to be supportive of FITs. The reason is simple, says Solarcentury’s Sebastian Berry: “ROs are largely irrelevant for photovoltaics in the UK” because the incentives are too low. He says that Solar Century and Sharp UK asked the government to increase the payment under ROs fourfold but only got a twofold hike.

A study published in mid-September by the UK’s public-private Energy Saving Trust showed how woefully underfunded solar is in the UK; it found that a fivefold increase in ROs for PV would allow “around 1.0 GW

of PV ... to be installed by 2020”, roughly a fourth of what Germany already has and even less than would be installed under an FIT of 20 pence per kilowatt-hour.

Power vs. heat

So how high should the rate for solar be? Neither Berry nor anyone else wished to state a figure because such issues are not only fodder for their opponents, but also delicate matters that could drive a wedge into the coalition itself. After all, its members represent different energy sources, and not everyone will get what they want.

One potential bone of contention is already clear: a lot of attention is being paid to renewable heat. In principle, this is excellent. Heat makes up a far greater piece of the EU’s energy pie than electricity, and the UK is no exception. Furthermore, FITs in Germany in particular have largely overlooked renewable heat. So the UK could set an example for the continent if it designs its policy well. But solar electricity could also be neglected if solar heat is found to be so much cheaper.

In addition to the question of rates, Berry says, “The nightmare is a nine-month gap” between policies; he adds that the roller coaster ride of policies up to now have led the industry to lose confidence.

Devil in the detail?

Will the loose FIT coalition hold now that the rates have to be negotiated? Mendonça says everyone is elated at the moment, so the coalition’s eye is on the goal: “we have to make sure this is not net-metering or a FIT in name alone,” such as the “competitive feed-in tariffs” proposed by the Tories in their ‘Quality of Life’ report on energy in 2007. “The big companies would prefer to recreate the same centralized, monopolized ownership structures for renewables,” he warns. But he is also not too worried about the 5 MW cap. “Getting small scale supported properly is a start, and down the line the failings of the RO will become increasingly evident by comparison. Common sense on policy is therefore very likely to prevail.”

Dave Timms is also confident: “The coalition will stay strong. We have differences of opinion, but also a high degree of trust.” And Sebastian Berry specifically praised the Renewable Energy Association for its “thorough process of input for each technology”.

“Solar has been getting very bad press in the UK, but it is really much more cost-effective than people think,” the REA’s Leonie Greene argues. She is also concerned about fears that high rates for PV will heighten concerns about energy poverty in the UK; when power becomes more expensive, the poor are hit hardest. But she says there are solutions, such as contracting, and she argues that “social policy should not dictate energy policy.” In other words, the UK can structure its entire tax system and social services differently if it really wants to help the poor. After all, concerns about energy poverty are great in the US and UK but rarely voiced in Germany, where power is kept artificially high with greater taxation.

Indeed, if the UK looked closer, it would see that Germany not only sets floor prices for renewables, but also for other products that society wants to protect, such as books; in return, Germany sets price ceilings for social housing and prescription medication to protect the poor. While such ideas are also known in the UK, they are on the retreat – the UK got rid of its Net Book Agreement in 1997, for instance. For the British, markets mean that Adam Smith’s invisible hand sets prices, not some central government in a five or 20-year plan – not even with degressions to phase out subsidies altogether.

And yet, Germans see no contradiction between Adam Smith and FITs, between free markets and governmental pricing. Price floors with degressions do not pick winners among companies; they merely give the chosen industry a window of opportunity. Once a rate has been set, may the best company win! No doubt, the British will be surprised to hear the name of the award that Green Budget Germany, the group behind the German ecotax, hands out every year. No, it’s not the Stalin Award. It’s the Adam Smith Award. ♦ CM

Scenarios for PV in UK				
FIT	Installed capacity by 2020	Degression	Share of RE by 2020	Subsidy cost
20 pence / kWh	1.25 GW	0%	0.44%	£ 260 m
30 pence / kWh	11.7 GW	2%	3.70%	£ 8.7 b
40 pence / kWh	15.4 GW	2%	4.80%	£ 17.9 b

Source: Energy Saving Trust

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