

## **Consultation on a review of the Feed-in Tariffs scheme URN 15D/435**

### **Energiesprong UK response**

The main principle of our response is that the FiT incentive scheme should be reconfigured within its existing cost envelope to provide higher tariffs against a much smaller number of higher-performing buildings, which also include significant energy-reduction measures. This approach would achieve much higher carbon/energy savings for the same amount of government investment and it would stimulate the refurbishment market and drive technological innovation to achieve the step-change this country needs to make zero-energy residential retrofit commercially viable.

### **Energiesprong and Energiesprong UK**

Energiesprong is a revolutionary, fully-integrated, market-driven zero carbon and funding approach to delivering attractive 'whole house' refurbishments with guaranteed net zero energy performance. Kick-started in the Netherlands, the programme has delivered over 800 net zero energy refurbishments and has begun delivery against an agreement between housing associations and builders to refurbish 111,000 houses to net zero energy levels, with scope for expansion to further housing types, private sector properties and new-builds.

Following a study tour to see Energiesprong in practice in the Netherlands, a small, forward-thinking group of social housing providers, construction companies and building performance professionals were so impressed that they set up Energiesprong UK to explore whether this approach could be applicable in a UK context. The aim of Energiesprong UK is to stimulate a 'game-changing' housing refurbishment sector in the UK - inspired by the Dutch Energiesprong approach - and make net zero energy housing a reality – at an industrial scale.

We already know that there's plenty of market potential in the UK. The English Housing Survey 2013 states that there are 9.2 million houses built between 1945 and 1980, and having an average EPC at low band D. Properties in this category are those most likely to benefit from Energiesprong solutions in its initial phase leading to full market scaling to different property types/age bands.

Energiesprong UK's members include some of the county's leading housing associations. They have a combined annual turnover of around £860 million and own and manage a total of 250,000 homes nationwide. Five construction and maintenance companies with a combined turnover of over £3bn are also founder members of Energiesprong UK.

### **Context**

Historically, solar PV has had a special role in meeting the UK's renewable energy targets and has been the technology that has allowed individuals and businesses to participate in the renewable energy mix

on a small scale. Although the cost of solar PV has fallen sharply over the last few years and the installed capacity has increased beyond projections, when viewed from a public accounting perspective and looking at the current feed-in rates, it is still a relatively expensive option compared with other renewable energy (or other CO2 saving) alternatives.

However, this could be changed if solar PV-based generation were linked to significant energy efficiency measures. For example, by reducing a home's energy consumption by 12-14 MWh per year through improved energy efficiency while, at the same time, generating 5-7 MWh renewable energy, there's a double advantage and the share (percentage) of renewable energy grows much faster than by simply adding generation.

Building-related energy consumption is responsible for approximately 40% of primary energy consumption. According to current projections, around 80% of the housing stock that will exist in 2050 has already been built, and major work on a house (on average) is only done once every 25 years. This means that in most cases we'll only get one good opportunity to transform a building to a high level of energy efficiency between now and 2050.

## **UK feed-in model**

At the moment, the UK feed-in model for decentralised generation is not geared to encouraging owners to invest in solutions that future-proof their buildings. The UK is unique among EU Member States in that its policy links feed-in tariffs to the energy efficiency of buildings. As such, the current policy is more advanced than the rest of Europe but its operation does not achieve the best result. It produces a strong incentive to generate renewable energy, but is less of a stimulus for demand reduction.

As energy consumption relating to heating and hot water in buildings is, on average, five times greater than the energy used for lighting and plug load, the question therefore is how to create incentives for homeowners that achieve the double long-term objective of demand reduction and renewable generation, and does so cost-effectively for the government.

On-going budget constraints and an in-depth review of public spending provide an opportunity to radically overhaul the current system and make government policy work in a smarter way. By incentivising integrated efficiency measures and renewable generation in combination, both the building owner and the government get much more value for their money. Such a combination drives innovation to create a future-proof building stock and, at the same time, secures a scalable economic opportunity for the UK refurbishment market.

## **Re-focussing renewable generation incentives**

In their current format, UK feed-in tariffs for solar PV and the RHI are relatively expensive options, and they provide limited potential for market transformation. Cost-effectiveness and innovation (and thus economic opportunity) would be better achieved through the development and application of comprehensive refurbishment packages that achieve very high efficiency standards (<30kWh/m<sup>2</sup> thermal or C= -0.4 or A++++) and include both energy efficiency measures and renewable generation.

**Energiesprong UK therefore proposes** the re-focussing of renewable generation incentives to encourage an optimal combination of energy efficiency and renewable generation in buildings. This could be achieved through the linking of incentives for renewable energy generation to a guaranteed high-energy efficiency standard of the house, or to a much higher minimum EPC rating. This idea builds on current UK policy that links FiTs to the efficiency of buildings, and takes it to the next transformative level.

By setting the standard high enough and requiring a long-term performance warranty, such a new approach would:

- Drive solution providers to focus on developing the necessary standards, warranties and innovation.
- Stop giving people the false impression that (by installing renewable generation alone) they're making a substantial contribution to reducing their energy consumption and carbon footprint.
- Point people in the direction of real gains – ie: demand reduction first and foremost, but even better when it's integrated with an efficient renewable generation system.

**Energiesprong UK believes** that the government's proposal to set a (regressing) feed-in rate of 1.63p per kWh is illogical as the ratio between the administrative burden and the income for a typical roof-mounted system would become disproportionate. It would be more effective to give a higher incentive to a lower volume as this would:

- Help support solutions that can deliver future- proof homes.
- Make real steps in reducing CO2.
- Support the introduction of high-efficiency refurbishment packages in the market.

**Energiesprong UK also favours** giving these integrated solutions priority for incentives over PV systems of all sizes for the same reason.

**Energiesprong UK believes** that the underlying principle for any incentive model should be that it's time-limited. As the market adapts to providing high energy-efficient packages, and costs are driven down through innovation and learning, the incentives that helped introduce and deliver these should be scaled back.

## **Secondary economic effects**

Our suggested approach also makes sense from a government budgetary perspective. Investment in net zero homes generates greater domestic economic activity compared to other investments in renewable energy sources (such as wind and biomass). This is based on the fact that raw materials for wind and biomass make up a larger share of the cost – and are mostly imported – whereas the development and installation of net zero homes solutions uses a much larger share of domestic labour (as evidenced by the Dutch implementation of Energiesprong solutions).

Tax revenues from a net zero refurbishment approach are therefore positive and immediate, e.g. VAT and corporation tax, coupled with increased domestic employment (income tax benefit and economic growth). This is particularly the case in the UK where taxation on energy is lower than taxation on labour (which is remarkable in itself when thinking about what behaviour a government would like to stimulate).

## **Energiesprong UK recommendations**

1. Discontinue the current solar PV feed-in tariffs and RHI for all new systems (including >10 kW) as soon as possible to avoid hitting the budget cap BUT...
2. Replace it with a targeted feed-in scheme and RHI for energy renovations resulting in <40 kWh/m<sup>2</sup> space heating demand (with a long term warranty). Such a new scheme would need to provide long-term certainty (preferably aligned to the performance warranty) and include tariffs comparable with current tariffs (but certainly not lower), which could be degressive over time.
3. The government's proposal to set a (regressing) feed-in rate of 1.63p per kWh seems a result of technocratic analysis rather than an effective measure to drive desired change; therefore we propose to retain commercially meaningful feed-in rates linked to very high performance targets.
4. The underlying principle for any incentive model should be that it's time-limited.