

BEAMA response to the Government's consultation on the Smart Export Guarantee

BEAMA is the UK trade association for the electricity supply chain.

BEAMA and its membership support measures to make the UK energy system more robust and sustainable and to incentivise consumers to provide renewable energy and flexibility to the grid. We welcome the Government's decision to end the uncertainty created by its announcement in December 2018 to cancel Feed-in Tariff arrangements for new customers, and we hope that this new policy, the Smart Export Guarantee, will restore some policy consistency and market confidence for microgenerators.

We view the SEG as a vital and welcome step in the transition for renewable microgeneration from a subsidy to a market. For this to be a success, this market will need to function as freely as possible: without undue distortions that will make the market less efficient and in a way that allows for market players to innovate. Smart Export Guarantee prices should be as reflective as possible of the real market values of the energy and flexibility that microgeneration provides to the grid. The SEG should also not impose policy restrictions on the types of tariffs offered to consumers; energy retailers should be free to adopt innovative tariff structures and consumer relationships.

1. Will the SEG as described provide a suitable and practical route to market for exported electricity?

Broadly yes: we expect the SEG to provide a practical mechanism for microgenerators (as defined) to export electricity and receive a fair return. Obviously, this depends on how the market value is reached. We look forward to seeing more details on how costs are arrived at, though we understand that aspects of this will evolve as the market matures.

How will existing subsidies be factored in? For example, will existing (overt or embedded) subsidies for nuclear, gas or coal-fired generation be considered? It is important that Government use internationally-accepted methods of measuring and evaluating embedded and overt subsidies, and that it takes care that the market is not distorted by these. Some market corrections, however, will be necessary; the most important being a carbon price sufficient to incentivize small-scale low-carbon generation.

As discussed in more detail below, the Government should not dictate the structure of the tariff arrangements but should allow retailers to innovate to determine acceptable ways of buying exported microgeneration.

2. Will the SEG support innovation towards the 'smart' energy transition and if so how?

The SEG will encourage flexibility markets on the condition that tariffs are responsive to all the contributing factors and are able to reflect an undistorted market price. The technical key is export metering, as this paves the way towards half-hourly settlement, peer-to-peer trading, the use of dynamic time-of-use tariffs in both directions (for selling and buying electricity) and other mechanisms to realize the costs and values of flexibility and of services.

3. Given the options set out above in table 1, what type of SEG tariff would be appropriate at this point? Please provide justification for your answer.



We see options C, D and E as particularly reflective of the true market. But we do not want to restrict consumers or the market: it should not be up to Government to determine what kind of tariffs are used. Retailers should be encouraged and supported to offer innovative tariffs that benefit consumers and provide a competitive market for exported energy.

4. Do you agree that Government should not take a role in price setting, e.g. through a fixed discount against a 'wholesale price', as this would detract from the objective of the SEG, for example by reducing location and time specific price signals?

We agree that the Government should resist calls to take a role in price setting. Some retailers may offer prices for exported energy that track, with varying volatility and with different margins, the wholesale energy price (or some other figure). Others will have different market models. This range of available tariffs is to be encouraged, but therefore it will also be important that consumers have visibility of how the tariffs are calculated. The Government should consider mechanisms to give an agreed level of transparency of these calculations, though we accept that some energy retailers will have a greater appetite for transparency than others and that some parts of these calculations will rightly remain commercially confidential.

The exception to our call for reflective, undistorted market prices is that we support the position that prices cannot go negative (guarantee of a price above zero) - realizing that this implies not always a true market price, but conscious that incidents of negative pricing are likely to be rare and short-lived.

5. Should the SEG have a fixed end date or not? Please provide justification for your answer.

BEAMA's position is that the SEG should not be introduced accompanied by a fixed end date. This policy represents the shift from a subsidy to a market, so it should not conclude before there is a robust and mature market in operation in which the SEG is no longer needed. The challenge to market and consumer confidence by the Government's announcement to end of the FiT before announcing the SEG was regrettable; such a 'policy gap' should be avoided in future.

We do however support periodic reviews of the SEG.

6. Will the SEG allow the market to innovate and bring forward additional routes to market, and create a competitive market to provide generators with the best tariffs?

We expect that it will. That it does so should be one of the main criteria by which it is judged (another being whether it leads to an increase in the number of microgeneration systems and the overall quantities of energy and flexibility they provide to the grid).

7. We are aware that whilst segments of the small-scale sector (e.g. commercial rooftop PV) are able to deploy without direct support, others, particularly some of the less mature technologies and more complex community developed schemes are still often marginal at best in delivering commercial returns. Do the proposed arrangements create additional challenges for certain segments, e.g. through reducing access to finance, and how can these be effectively mitigated through the SEG?

We agree that there will be some additional challenges to some new or potential microgenerators as a result of there no longer being a fixed price via the FiT. To minimize these, the SEG needs to be price-reflective of real costs - this would mitigate the risks and problems for small community



schemes getting finance (which is more difficult for them because they are marginal). A SEG forecast price could also be a useful mitigation.

Likewise, suppliers could publish their SEG policies in a way that is analogous to the banking sector (such as indicating whether it is a variable or fixed rate of SEG payment, and how it is calculated). Doing so would encourage energy suppliers to be transparent about their pricing.

There is a challenge here for Ofgem: what effect will this have on switching rates, if microgenerators are signing long contracts with energy suppliers and if energy suppliers are permitted to offer different purchase rates to their energy customers?

8. How long will it take for suppliers to put systems in place in order to administer the SEG, and what would the associated administrative costs of the SEG be? Please provide justification for your answer.

9. We would welcome views on whether the SEG can and should be linked to any similar mandatory communications requirements.

The Government's stated position is that the SEG will be realized through SMETS metering. However, work remains to be done to ensure that SMETS metering and microgeneration are fully compatible. BEAMA is leading efforts across the sector to resolve the outstanding issues. As for the DCC, we are yet to be convinced that the DCC will have the requisite functionality and capability to support all the required actions on top of its other functions. We do not see the need to link the SEG to other communications requirements.

Another important requirement of the SEG is that it support and promote interoperability. The communications requirements must not be a barrier to switching or to the interoperability of devices, systems or services. If we back the DCC as a solution then this should come built-in, but if some other solution is proposed then it needs to be done in a way that ensures customers do not become locked in to selling to a particular energy retailer.

10. Do you agree that appropriate guidance on the administrative arrangements that suppliers will need to consider in order to set a SEG tariff should be issued? Please provide your reasoning.

11. What factors would suppliers consider when setting a SEG tariff, and what additional costs do suppliers expect might be incurred as a result of providing a SEG tariff?

12. Do you agree that an annual market condition report should be published for the SEG? Please provide your reasoning.

Yes. This report will be important for consumer confidence and to support decision making by business.

13. Do you agree with our assessment of the impacts of the SEG on certain consumer groups such as those in or at risk of fuel poverty or energy intensive industries?

14. Do you agree with the proposed metering requirements for the SEG? If you disagree with the proposal, please explain why and provide reasoning.



We support the Government's intention to require meters to be fully compliant with the relevant standards and specifications (such as MID). However, there are still issues to be resolved before SMETS metering can provide the full solution for the SEG. BEAMA is leading efforts across industry to resolve these outstanding issues. The meter has specific number of certificates for verification of command. Any command from the DCC to the meter can only originate from one supplier, so the metering and communications infrastructure is not suitable in its current form. BEAMA's position is that more detailed data modelling work needs to be undertaken before the DCC is tasked with providing this service.

15. Are non-SMETS stand-alone export meters, with an ability to record half-hourly export, currently available on the market? Please provide information on the costs for stand-alone export meters, such as capital and installation costs.

Yes, non-SMETS export meters are currently on the market. More details are available from individual device vendors.

16. Do you agree that installations entering into the SEG should not be required to meet a certain energy efficiency standard? If you disagree with the proposal, please explain why and provide evidence.

Energy efficiency standards or requirements should not apply to any premises selling exported energy through the SEG. This is because the SEG is concerned with the export energy, not the premises in which the energy is generated. It is a policy to deliver a market for flexibility, microgeneration and distributed storage, not to support energy efficiency measures. However, BEAMA encourages the Government to develop robust policies that will improve the energy efficiency of buildings.

It is also recommended that advice to consumers from both Government and private industry emphasize the importance of a building's energy efficiency, and the fact that by making premises more energy efficient a microgenerator will thus have more to export.

17. Do you agree it is the correct approach to allow applicants eligible for further local or regional support to also be potential SEG applicants?

Yes.

18. Where storage is co-located with an eligible generation technology, should SEG payments be made on 'brown' electricity exported from storage or limited to exported 'green' electricity? Please explain your reasoning.

SEG payments should not be limited to exported renewably-generated electricity. This is for two reasons. The first is that mechanisms to differentiate 'green' from 'brown' exported energy would likely be costly and impractical.

The second is that, if a truly reflective market price is offered, the SEG will support purchases of exported 'brown' energy only when it is sensible to do so; i.e. when the exported energy (whether microgenerated, stored, or both) is providing valuable flexibility to the grid. Providing this flexibility helps to avoid reinforcement costs and allows the grid to function with a higher proportion of intermittent renewable energy and less reliance on baseload. So even if a particular sample of exported energy was not renewably generated, it still facilitates the decarbonization of the grid and



the electrification of heat, road transport and other activities, with associated carbon abatement benefits.

19. Do you agree with the metering arrangements when co-locating storage with generation technologies eligible for the SEG? If you disagree with the proposal, please explain why and provide reasoning.

Yes. We also suggest that the term 'brown' electricity for stored energy that is sold back to the grid is unhelpful.

20. If SEG payments were to be made on 'brown' electricity exported from a co-located storage device, are there any potential opportunities for gaming? If so, please provide details.

If the market is incentivized and allowed to run efficiently and without undue interference but with all necessary considerations taken into account (most importantly a carbon price) so that it offers a truly reflective price for exported energy, then the opportunities for gaming will be minimal. If such gaming does occur then that it is signal that the market is distorted and needs correction.

21. Should the SEG make provision for installations where an eligible technology is co-located with a non-eligible technology and/or storage? If so, what would the necessary metering arrangements need to be?

The metering arrangements will be driven by technical, not policy, considerations. No special provision for co-located eligible and non-eligible technology should be made (we see the SEG as a market not a subsidy).

22. Do you agree or disagree that AD installations newly accredited under any future arrangements to support small-scale low-carbon generation should be subject to the same sustainability criteria and feedstock requirements as AD installations under the FIT? Please provide your reasoning.

23. Do you agree that the current FIT reporting requirements and administration process, including the arrangements for payment adjustment for ineligible electricity, would be appropriate and practical for the SEG? Please provide evidence for your answer.

24. Do you agree with the proposed obligations and functions on each of the other parties involved in the SEG - BEIS, Ofgem, and suppliers - including the enforcement action required by suppliers and Ofgem? If not, why?

25. Do you agree with the review process proposal for the SEG? If not, what alternative approach would you suggest?

26. Do you agree that the threshold for mandatory SEG suppliers should be set at 250,000 or more domestic electricity customers? If not, what alternative threshold would you suggest? Please provide any useful information or evidence to support your suggestion.

27. Do we need to set out arrangements for the event in which a supplier either loses its supplier licence or goes into administration? If so, what provisions need to be made?

28. Do you agree with our preferred approach to help ensure consumer protection? Is it practical and are there other factors that should be considered and why?

29. This policy is focused on power generation, however increasingly we anticipate that installations will be integrated with battery and vehicle-to-grid technologies. What additional technical challenges might we need to consider, for example relating to installation standards, and how would this effect the development of the market?

Battery and storage technologies provide a valuable service to the grid, aiding the balancing position. These should be encouraged under the SEG arrangements. We recognize that there are technical challenges and we support appropriate installation standards. Extensive work has been undertaken and is ongoing through the work of WP3 of the EV Energy Taskforce, which is led by BEAMA, to identify in detail the necessary requirements. These requirements should be sufficient to ensure suitable phase supply and safety.

30. Is the process for applying to the SEG practical, and will it ensure only eligible generators are able to participate in the SEG?

31. Should deployment of installations through the SEG be submitted to a central register administered by Ofgem?

The register of SEG-approved installations should be part of a wider, comprehensive central register of installed storage assets. Whether this is administered by Ofgem or by some other appropriate Party should be for wider industry discussion. BEAMA does not support proposals for a private for-profit company establishing an asset register while more suitable, not-for-profit, solutions are available.

32. Are our proposals for the treatment of settlement practical for suppliers to implement, and compatible with the Balancing and Settlement Code? If not please explain why.

Requires qualification and comment from suppliers who partake in the BSC. They seem reasonable but require developments in technology to truly go forwards. The BSC should be closely considered as a part the implementation of the SEG and any migration towards a Peer-to-Peer enabled iterations to come.

33. Are there any other issues you would like to raise as part of your response to this consultation?

We understand that consumers will be able to shop around for purchasers of their microgenerated electricity and not be locked in to selling to the supplier with the contract for their property. But it would be helpful to have explicit confirmation of this. Other questions arise from this: Can they sell to a third party, i.e. someone with a "SEG" licence but not necessarily a supply licence? If so, this may see companies being set up to buy exported microgenerated energy and then on-sell either back to the grid or B2B. That could either add unwanted complexities or help make the market more efficient (we suspect the former).

How does the SEG treat aggregators generally? Is there a mechanism for third party aggregators to participate, or would they be required to partner with energy retailers?

Is peer-to-peer trading possible under the SEG and how will it work? What special market and regulatory arrangements will be needed? How does export metering enable peer-to-peer? Similarly, how does the SEG move towards facilitating peer-to-peer market places? Would this require energy retailers to leverage the value, or could neighbourhood trading be included?



It would also be helpful if the policy could spell out who is responsible for raising an Export MPAN for SEG participants and for paying the associated costs (even if only administrative).

Other future possibilities for export metering could include a system for carbon intensity, time of day and miles travelled to all factor into the buy/sale price – although the metering required is some way off. SEG seems a practical step in the right direction, although there are significant technical hurdles to overcome and it does pose some risk to the solar industry before its establishment.