

Response to:

Minded to decision and draft Impact Assessment of industry's proposals (CMP264 and CMP265) to change electricity transmission charging arrangements for Embedded Generators

ENGIE, formerly known as GDF SUEZ, is a global energy company operating in three key sectors of power, natural gas and energy services. The company puts responsible growth at the heart of all its businesses in order to address major energy and environmental challenges: responding to the demand for energy, ensuring security of supply, combating climate change and making optimum use of resources.

ENGIE is present in 70 countries worldwide and has expertise in four key sectors: independent power generation, liquefied natural gas, renewable energy and energy efficiency services.

In the UK, ENGIE has interests in a number of activities across the energy value chain, from gas exploration and production through to services. In total, ENGIE employs approximately 17,000 people throughout the UK across all of its businesses. In generation, ENGIE is one of the country's largest independent power producers, with interests in 4,025 MW of plant. This comprises a mixed portfolio of generation assets that include gas, CHP, wind and the UK's foremost pumped storage facility. ENGIE also operates a major energy retail business supplying electricity and gas to the Industrial and Commercial sector, and is entering the domestic retail market in 2017.

ENGIE is also the UK's leading district energy company. We design, build, finance and operate district heating schemes on long term concession agreements. ENGIE's high profile district heating schemes include; the Queen Elizabeth II Olympic Park, Southampton District heating scheme, Whitehall District Heating scheme, Leicester District Heating Scheme and Birmingham District Heating Scheme.

Outside of energy, ENGIE is a leading services provider to the public and private sector in the UK, delivering a wide range of facilities management and back office services.

Thank you for the opportunity to comment on the Impact Assessment. Our summary view of the question raised is set out below as well as detailed answers to the questions:-

1. **We support the Ofgem minded to position to implement a cost reflective solution based on the avoided GSP infrastructure cost.**
2. **We support the Ofgem position to not allow grandfathering of embedded benefits as this would delay the development of new technologies and other solutions that will lead to more cost effective solutions for the consumer.**
3. **We would prefer the implementation date of the full change to be April 18 as this would give the best outcome for the consumer.**
4. **The revenue collection element of the Demand (and Generation) residual should not be designed to influence action but merely recover costs. It should not be possible to receive it as a benefit and this will be the test of an appropriate collection methodology.**

Q	Question	Response
1	<p>Do you agree with our problem definition and that the Transmission Network</p> <p>Use of System (TNUoS)</p> <p>Demand Residual (TDR) payments to sub-100MW Embedded</p> <p>Generation ("smaller EG") are distorting dispatch, wholesale price, the capacity market (CM) and that they pose an increased cost to consumers</p>	<p>We agree with the problem definition and believe that distortions caused by excessive TNUoS embedded benefits manifest themselves in the following way:</p> <ul style="list-style-type: none"> • Embedded generators' ability to out-bid transmission connected generators in the capacity and ancillary service markets (because of their embedded benefits) means it is likely that contracts are being allocated to parties out of the merit order. • Embedded generation has strong incentives to dispatch over potential TRIAD periods, irrespective of whether they are in a favourable location (from a TNUoS perspective) and irrespective of whether they are in merit in the energy market • Innovation in the electricity markets is distorted as market participants are pre-occupied with maximising their embedded benefits instead of focussing on genuine value adding activities that benefit consumers • Investment decisions are artificially skewed in favour of embedded generation and away from transmission connected generation for reasons unrelated to underlying cost advantages.


Q	Question	Response
2	Do you agree that rising TDR payments to smaller EG is a problem which needs to be addressed?	<p>Yes, we agree that this problem needs to be urgently addressed. Our views on TDR payments are well grounded in established economic theory. Under non-discriminatory cost reflective conditions, parties aiming to maximise the net benefits of their projects/assets will correctly account for the impact they have on transmission network costs when making decisions to invest, dispatch, close, compete for contracts etc. All else being equal, projects/assets with a lower underlying cost impact on the transmission network will out-compete those with a higher underlying cost impact on the transmission network. This ultimately ensures that consumers pay less for their electricity, because more efficient projects/assets will succeed over less efficient ones when competing against each other. By contrast, non-cost reflective and discriminatory conditions will tend to create “winners” according to who is most favoured by the discrimination. The more discriminatory the conditions, the more market outcomes will move away from a least cost solution, because the discrimination has ever greater potential to distort and reverse underlying cost advantages.</p> <p>The TDR is set at a level that far exceeds a cost reflective view of the benefit and it is thus having a detrimental effect on competition and innovating in many sectors of the energy market leading to additional cost to consumers.</p>
3	Do you agree with our interpretation of the applicable CUSC objectives?	Yes we believe that these have been correctly interpreted.
4	Do you agree with our assessment against the applicable CUSC objectives and statutory duties?	Yes we agree with the assessment against the CUSC objectives

5	<p>In our assessment against the objectives, do you believe there are any relevant assessments we have not taken into account?</p>	<p>We believe that all appropriate assessments have been taken into account. The additional points we make (below) to support the approach taken by Ofgem in the assessment.</p> <ol style="list-style-type: none"> 1. The avoided GSP investment cost is dealt in our Q 10 answer and we support the proposed method of updating this value. 2. Embedded connection charges are covered in Q7. Transmission Connected generation fund own and operate the connection to the transmission system including all transformers and switchgear. In addition Transmission Connected generation pays for all sole use circuits to the MITS and local substation costs. Distribution connected generation connects to the transmission system via the distribution system and pays a share of any additional works on the distribution system required to accommodate the generation. We believe that this puts both parties on an equal footing relating to connection charges. 3. It is clearly recognised that the locational element that is derived from the ICRP model presents the differential incremental cost of transmission based on a distributed node. It does not represent the absolute cost of an increase or reduction in the required level of transmission. The distributed node is used to represent additional demand which is a valid assumption as it is likely that areas with high demand will see increased or reduced demand (embedded generation) in proportion to the absolute demand levels in that area. In addition Transmission Connected generation pays directly for sole use transmission circuits and substation costs to connect to the Main Interconnected System (MITS); this additional cost reflective element increase the cost of generation that is not located close to the MITS. 4. The residual cost is designed to simply recover the cost of the transmission system after locational and generation only circuits have been removed. The design of the residual cost collection methodology is likely to be subject to a Targeted Charging Review; we support this approach. The review will also deal with the appropriate share and cost recovery method that is borne by gross demand and embedded generation. We believe that residual charges should not be used to influence behaviour or become a driver for explicit behaviour for any type of generation or demand action and the avoidance of this cost (or receipt of a negative cost) should not become a reason to develop behind the meter generation, embedded generation or transmission connected generation. 5. We note the Ofgem comments in the decision letter on CMP255 (Objective (a) page3) and agree with their conclusion that negative residual charges are not appropriate for transmission connected generation. The negative charge is a consequent of the €2.5/MWh
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Q	Question	Response
		<p>cap for generation charges and we expected this to be addressed by industry or National Grid in the near term to prevent it becoming a distortion. As such we do not believe that arguments relating to avoided generation residual cost are appropriate when concluding on these modifications.</p> <p>6. The SQSS drives the need for transmission and this need is ultimately driven by the need to meet peak demand with wind (the peak condition) or without wind (the year round condition). Various scaling factors are used to represent transmission generation with embedded generation considered based on its contribution to peak conditions. The SQSS is currently in the process of reviewing the contribution of embedded generation to both of these demand conditions (GSR-016). This is likely to result in changes to the SQSS that will result in some types of embedded generation being considered explicitly alongside transmission connected generation as opposed to implicitly via the contribution to peak demand conditions.</p>
6	<p>Do you agree with our assessment that, in this instance, grandfathering as set out in the WACMs would be unlikely to best facilitate the CUSC objectives when compared to the other options available to us?</p>	<p>Yes we agree with the assessment that grandfathering some or all of the historic embedded benefit to a sub-set of distribution connected generation for a number of years will result in a distortion in the market for energy and balancing services. Grandfathered generators will effectively receive funding from TNUoS customers to cover a significant proportion of the fixed costs associated with the capital investment for their assets. This will allow this class of generation to offer power and ancillary serves at much lower rates than would otherwise be the case.</p> <p>Generation that does not benefit from grandfathering arrangements and transmission connected generation (that does not receive embedded benefits) will need to include a proportion of the fixed costs in the price that they offer energy and/or balancing services; this will make this class of generation relatively uneconomic. The consequence of this is that it will stifle competition in new markets, where there is a need to develop flexibility and dynamic services, by allowing grandfathered generation to undercut the economics of all other types of generation. Ultimately this will lead to an increased cost to consumers as more efficient and cost effective options fail to materialise or withdraw from the market. This is especially concerning with balancing services where the market depth is relatively small, at a few thousand MW. Thus, all options that propose grandfathering are worse than the baseline/original.</p>

Q	Question	Response
7	<p>Do you agree with our assessment that the value of the avoided GSP investment cost best facilitates the applicable CUSC objectives?</p>	<p>Yes, we think the assessment is appropriate. The methodology and value calculated was undertaken by National Grid during the working group process in 2013 to look at the embedded issue. Transmission-connected generation funds and pays for all sole user works up to Main Interconnected Transmission System and in addition owns and operates all plant and apparatus that connects its generators to the transmission system.</p> <p>Embedded generation connects to the transmission system via the distribution system and also pays a share of any additional works on the distribution system. There is a benefit of an avoided cost of GSP reinforcement caused by embedded connections and this is reflected in the GSP investment cost.</p>
8	<p>Do you agree with our assessment of the impacts on security of supply?</p> <p>Please provide evidence for provided views</p>	<p>National Grid as an active member of the CUSC working group has provided no evidence or concerns that a reduced Triad benefit would affect security of supply.</p>
9	<p>Please provide evidence to show if there are other cost savings which small EG drive in comparison to larger (over 100MW) EG on the distribution system.</p>	<p>We do not believe there are any other cost saving beyond the GSP reinforcement cost. see Q5 answer as well.</p>

Q	Question	Response
10	Is there other evidence that payment above avoided GSP/generation residual would better facilitate the applicable objectives	<p>We believe that from a cost reflective perspective the avoided GSP investment charge is the appropriate charge. Evidence was presented to the CUSC working group and via consultation responses that compared the cost of connecting transmission generation and embedded generation.</p> <p>Any circuits that are installed for the sole use of a transmission connected generator (and the substation connection) are charged directly to that transmission connected generator via the charging methodology. An allocation via the RIIO process is given to the TO to incentivise procurement at least cost to the consumer.</p> <p>If the reinforcement goes beyond generator-only circuits (in to the MITS) then these reinforcements would be required for embedded or transmission connected generation with the cost turning up in a different RIIO allowable revenue stream (e.g. wider works for Beaulieu – Denny) as embedded and transmission connected generation have the same effect on the MITS.</p> <p>Thus reinforcements of the MITS driven by Transmission-connected generation or embedded generation are treated the same way, with the resulting cost falling on consumers.</p>

Q	Question	Response																
11	Do you believe you have a legitimate expectation or contractual right for the continuation of TDR payments? If so, please provide evidence	<p>We believe that the regulation charging regime has always been subject to potential change where distortions occur that are not in the best interests of consumers. Project Transmit that concluded in 2013/4 contained sufficient detail to allow any market participant to be aware that significant change was possible where a defect was observed.</p> <p>RIA for Transmit (below) clearly signalled that change was possible in this area</p> <div><div> Making a positive difference for energy consumers</div><div><p>Project TransmiT: Impact Assessment of industry's proposals (CMP213) to change the electricity transmission charging methodology</p><p>Consultation</p><table><tr><td>Reference:</td><td>137/13</td><td>Contact:</td><td></td></tr><tr><td>Publication date:</td><td>1 August 2013</td><td>Team:</td><td></td></tr><tr><td>Response deadline:</td><td>26 September 2013</td><td>Tel:</td><td></td></tr><tr><td></td><td></td><td>Email:</td><td></td></tr></table></div></div> <p>“Great Britain’s energy sector is facing an unprecedented challenge. This is driven by the need to connect large amounts of new and low carbon generation to the electricity networks to meet climate change targets, while continuing to provide safe and reliable energy supplies at value for money for consumers today and in the future. As a result of the rapidly changing generation mix, networks are going through radical change.</p> <p>Against this background, we launched Project TransmiT to consider if any changes may be required to the electricity transmission charging arrangements.”</p> <p>We believe that Ofgem has a track record of examining any material distortion that has or is likely to occur and take action to protect consumers’ interests. There is no legitimate expectation or contractual right for the continuation of TDR payments.</p>	Reference:	137/13	Contact:		Publication date:	1 August 2013	Team:		Response deadline:	26 September 2013	Tel:				Email:	
Reference:	137/13	Contact:																
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12	Do you agree with our assessment of the distributional issues?	Yes, we agree with the identified distributional effect.																

Q	Question	Response
13	Are there any sectors that we may have overlooked?	<p>We believe that one sector has not been covered in detail relating to competition and innovation in the flexibility market. :-</p> <p>Embedded generation (principle reciprocating engines of various designs) have entered the flexible generation market in significant quantities over the last two years and now dominate both the Fast Reserve and the STOR markets outside of the Triad periods. The TDR payment covers the majority of the fixed and operating cost of these engines with the resulting effect that Transmission-connected providers (who do not receive this subsidy) are not able to access these markets at efficient prices and innovation in the flexibility market is dominated by parties that can receive the TDR payment.</p> <p>The effect of the TDR payment is to curtail competition and innovation in this key market segment which in the short term will leads to reduced level of innovation and potentially the withdrawal of flexible transmission-connected generation from these market segments with a resulting cost increase to consumers.</p>
14	Do you agree with our modelling approach?	Yes we support both the modelling approach and the approach used to assess the results. Modelling should only be used to confirm decision making and not the primary source of the decision. The fundamental principle of cost reflective charging supported by modelling is an appropriate decision making tool.
15	Do you think that our background assumptions and using FES data is an appropriate approximation for status quo?	Yes, we support this position.
16	Where WACMs are not modelled directly, do you think our assessment is appropriate (see appendix 8 for detail	Yes, we think that modelling a number of WACMs that provide a spread of options give some suitable metrics to the relative value to the customer of each approach.

Q	Question	Response
17	Of the options available to us, do you agree that WACM4 best facilitates the applicable CUSC objectives?	<p>We believe that WACM-3 will give the best outcome to customers. We are concerned as to the level of harm that is occurring to the flexible Transmission-connected generation in the short term that may lead to long term cost increases to customers.</p> <p>Embedded reciprocating engines of various designs have entered the flexible generation market in significant quantities over the last two years and now dominate both the Fast Reserve and the STOR markets outside of the Triad periods. The Triad subsidy covers the majority of the fixed and operating cost of these engines with the resulting effect that Transmission-connected providers (who do not receive this level of support) are not able to access these markets at efficient prices. Embedded generation that provides these services also benefit from a second utilisation payment, the “spill payment” (currently being addressed in P354 and P344). The combined result of these effects is likely to result in the withdrawal of flexible transmission-connected generation from these market segments with a resulting cost increase to consumers. WACM-4, with the three year phased implementation, will only remove this distortion in the final year and we would prefer WACM-3 that has the same effect but an earlier implementation date. WACM-3 would deliver the earliest benefit to customers.</p>
18	Do you believe that an implementation date of April 2018 best facilitates the applicable CUSC objectives?	Yes, we believe that an implementation date of 1 st April 18 is appropriate.

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