

## Ofgem consultation – Impact Assessment of industry’s proposals (CMP213) to change the electricity transmission charging methodology

*Submission by GDF SUEZ Energy International*

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### **(I) About GDF Suez Energy International**

GDF SUEZ Energy International (formerly known as International Power) is responsible for GDF SUEZ’s energy activities in 30 countries across five regions worldwide (Latin America; North America; South Asia, Middle East & Africa; UK-Europe, Asia-Pacific). Together with power generation, we also active in closely linked businesses including downstream LNG, gas distribution, desalination and retail. GDF SUEZ Energy International has a strong presence in its markets with 77 GW gross capacity in operation and a significant programme of 8 GW gross capacity of projects under construction as at 31 December 2012.

The UK-Europe region (GDF SUEZ Energy UK-Europe) has 8.6 GW net ownership capacity in operation, which includes over 5.8 GW of plant in the UK market made up of a mixed portfolio of assets – coal, gas, CHP, wind, a large OCGT diesel plant, and the UK’s foremost pumped storage facility. Several of these assets are owned and operated in partnership with Mitsui & Co. The generation assets represent just under 9% of the UK’s installed capacity, making GDF SUEZ Energy UK-Europe the country’s largest independent power producer. The company also has a retail supply business and a significant gas supply business in the UK, both serving the Industrial and Commercial sector.

### **(II) Summary of response**

#### **High level statement**

- ***GDF SUEZ welcomes the opportunity to respond to this Ofgem consultation. Whilst GDF SUEZ supports the move to a more cost reflective solution that includes elements of load factor and diversity we have concerns that the minded to solution is not as cost reflective as WACM 3 that is based on a "Diversity 2" solution.***

- **GDF Suez has continuing concerns as to the use and application of the dual load flow approach. Whilst no alternative has been presented as part of the current process we hope that this aspect of the solution would be reviewed by the industry at the earliest opportunity.**
- **We support the HVDC approach but believe that an incremental alternative that allows the application of specific reduction factors to HVDC converter stations should be brought forward by industry. Such an alternative would lead to a reduction in tariff where it has been clearly demonstrated that benefits are provided to the wider customer base.**
- **An implementation date of April 2014 does not provide sufficient time to adjust levels of station TEC and commercial contracts given the magnitude of the change for southern based plant and supply business. We believe that April 2015 should be the earliest implementation date.**

### **(III) Responses detailed issues**

#### **Diversity**

The CUSC working group has identified that the key drivers for transmission investment are diversity, load factor and bid price. All three characteristics are required in order to reflect the impact a user has on transmission investment.

We believe, based on the evidence presented in the CUSC report that the original proposal does not improve on the current arrangements as it takes no account of bid price and diversity of plant type. The CUSC report clearly shows that the cost of providing transmission in constrained areas can be significantly higher than would be determined using just load factor.

A charging methodology that uses only load factor will result in a significant burden being placed on all users (through the residual charge) to finance load related infrastructure in areas dominated by one plant type. It will potentially encourage intermittent (wind) plant to locate in areas that already have high wind penetration resulting in significant reinforcement costs that are not reflective of the costs imposed on the system by the user. Some element of diversity is necessary in the tariff calculation.

The CUSC group has developed a number of credible options that deal with this effect in a practical and balanced way. The diversity proposals whilst capable of further incremental development move the transmission charging methodology in an appropriate direction.

The three diversity options bring in elements of diversity and bid price in various ways to better reflect investments in the transmission system. In areas where there is low diversity and high bid prices charges are adjusted to reflect this. The control mechanism encourages users to locate in areas of the transmission system where they can be accommodated at least cost.

Diversity 1 (WACM2) and Diversity 2 (WACM3) both have explicit load factor element and share many similarities in design. Diversity 1 has a stronger load factor element resulting in pure load

factor charges in many areas of the transmission system. Diversity 2 takes account of diversity in areas where there is a significant volume of thermal plant and encourages low load factor intermittent plant to locate in these areas. Diversity 2 allocates a proportion of the incremental transmission cost to TEC and the remainder to load factor. This recognises that even where there is perfect sharing a minimum amount of transmission is required; this is set at 50% in the proposal.

Investments in the transmission system take place prior to new generation connecting and, in many cases, are funded for a number of years by existing generation. Diversity 1 only looks at the actual volume of low carbon generation connected (not the volume that will ultimately connect). As more low carbon generation connects in an area the percentage of "not shared" MWkm increase. Diversity 2 deals with this forward looking approach by recognising that at least 50% of the connection is needed and charges on this basis; we believe that this additional benefit of Diversity 2 should lead to it being the preferred option.

Indicative Tariffs indicate that the residual charge for Diversity 1 is around £3/kw whilst that for Diversity 2 is some £2.4/kw. This indicates that Diversity 1 collects smaller revenue than Diversity 2 for the location element and hence the socialised cost of Diversity 1 is higher. We believe that based on this information Diversity 2 (WACM3) is more cost reflective than Diversity 1 (WACM2).

Unfortunately the CUSC process did not result in any Diversity 2 or 3 options to be recommended by the panel as such we understand that if any of these options are approved by the Authority they could be subject to appeal. We hope that this consideration will not influence Authority's determination of the option to approve as it is clearly not a relevant objective.

### **Split load flows (peak and year round)**

We have concerns as to the use of split peak and year round load flows. Whilst evidence has been presented that demonstrates much of the work presented by the CUSC group, there is little evidence presented for the use of split load flows. The only rationale given is that it is used in the SQSS. The SQSS use is principally around ensuring that transmission is available to secure demand in periods of low intermittent output. The proposer has then made the assumption that on this basis intermittent generation should not be charged for this element of transmission. We believe that all generation should contribute to the incremental cost of transmission and to arbitrarily split the load flow based on a second generation background (with no intermittent generation) but using an identical demand background is inappropriate and serves no purpose other than to reduce intermittent generation tariffs.

The same drivers for constraint cost apply equally to "peak" and "year" round parts of the network as such we believe that the "peak" element of the tariff should be affected by the load factor and diversity methodology in the same way as the "year" round part of the network.

Increasing levels of intermittent generation do have an effect on demand security by reducing the levels of conventional generation and as such all generation types should be exposed to the full "year" round tariff element based on a single background.

The variation in demand tariffs as a result of the dual load flow approach clearly shows that the combination of these load flows gives a mathematically different result to a single load flow and hence is a questionable methodology as Transmit should have no effect on demand tariffs.

It is unfortunate that the option of a single load flow has not been presented by the working group as a WACM driven by the need to ensure only a manageable number of alternatives were put forward. We would expect this issue to be picked up as an incremental change should a dual load flow option be approved.

We believe that should the Ofgem minded to position be implemented a review by the industry should take place (via the CUSC process) which should consider the move to a single load flow implementation of approved Diversity option.

### **Parallel HVDC and Islands converter costs**

We recognise that in some circumstances HVDC converters can deliver benefits to the wider system in terms of movement of power flows or the control of voltage. The annualised cost of any benefit should be reflected in a lower TNUOs charge relating to these assets. We believe that a specific alternative could be developed as an incremental change to implement a specific charging option for HVDC converters.

### **Implementation**

We believe that the implementation date should be no earlier than 1<sup>st</sup> April 2015. This will allow plant that is directly affected by the change to adjust levels of TEC to reflect this new charge without being subject to user commitment penalties. The user commitment penalties are applied if changes to TEC are made with less than a year and 5 days notice. In addition one of the unforeseen consequences of Transmit relating to the split load flow is the change in demand tariffs. In order to allow these changes to be reflected in demand tariffs we believe an April 2015 implementation date is appropriate.

### **For further information please contact:**

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