

[REDACTED]
Senior Economist
Ofgem
9 Millbank
London
SW1P 3GE

Electricity North West
304 Bridgewater Place, Birchwood Park
Warrington, Cheshire WA3 6XG

[REDACTED] uk
Web: www.enwl.co.uk

Direct line: +[REDACTED]
Email: [REDACTED]@[enwl.co.uk](mailto:[REDACTED]@enwl.co.uk)

October 2016

Dear Karen,

Request for a Definite Derogation from Standard Licence Condition 13A.4

I am writing to request a definite derogation from Standard Licence Condition 13A.4, the requirement that the licensee must, at all times, implement and comply with the Common Distribution Charging Methodology (CDCM).

The purpose of the derogation is to trial a framework that allows customers who are supplied locally from distribution generation connected to the same primary substation to receive a discounted Distribution Use of System (DUoS) tariff. The discount reflects the long run marginal costs of the upstream assets which are not being utilised to the extent that energy is being supplied locally. A separate upstream tariff will be levied on the associated supplier to reflect the costs of all the sites in the scheme of utilising the upstream network. Further details of the proposal are given in Appendix 2.

As you are fully aware, the deployment of low carbon technologies is likely to lead to significant increases in the demand on our lower voltage networks and to increased levels of generation connected to these networks also. There are a number of technical developments being trialled within innovation projects (e.g. Electricity North West's Smart Street project and Scottish Power Energy Networks' ARC project) which are showing how demand and generation can be accommodated more effectively and also the benefits of local balancing to facilitate the connection of low carbon generation. If we can provide commercial signals to support these approaches it could ensure that the additional capacity requirements of our lower voltage networks do not translate into a need for expensive reinforcement of the higher voltage distribution networks and also the transmission network.

We believe that the proposal better meets the Relevant Objectives in relation to the Charging Methodology as set out in SLC 13.3 of our Licence, namely:

- ***that compliance with the methodology facilitates the discharge by the licensee of the obligations imposed on it under the Act and by this licence;***
Encouraging local balancing and thereby reducing the need for reinforcement of the higher voltage networks will lead to a more co-ordinated and economical system of electricity distribution as required by section 9(a) of the Electricity Act 1989; We also believe this supports competition by facilitating local supply and generation which we have a duty to undertake as set out in Section 9(b).

- ***that compliance with the methodology facilitates competition in the generation and supply of electricity, and does not restrict, distort, or prevent competition in the transmission or distribution of electricity;***

The proposed approach will support community energy projects thereby facilitating competition in both supply and generation.

- ***that compliance with the methodology results in charges which reflect, as far as is reasonably practicable (taking account of implementation costs), the costs incurred by the licensee in its Distribution Business;***

The core charging methodology under the proposals remains broadly the same except that the long run marginal costs associated with the higher voltage networks are excluded from the unit rates of the downstream tariffs but remain included in the upstream tariffs and will be recovered from users to the extent that the upstream network continues to be utilised.

- ***that, so far as is consistent with subparagraphs (a), (b), and (c), the methodology, as far as is reasonably practicable, properly takes account of developments in the licensee's Distribution Business.***

Local generation, local supply and community energy projects are now a reality and the proposal is taking account of these developments to facilitate greater competition and to encourage more effective utilisation of the distribution system.

Further justification and background to the proposal is provided in Appendix 1.

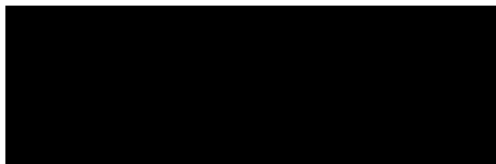
Whilst we could progress these changes through the normal change control processes set out in the Distribution Connection and Use of System Agreement (DCUSA), this would take considerable time and we recognise that other reviews on charging arrangements are ongoing. We are facing an increasing number of projects that are looking for this type of arrangement as an alternative to constructing their own private networks to overcome the perceived barriers created by the current charging approach. Constructing duplicate networks to address an issue with the current charging arrangements does not make sense either economically or environmentally.

The derogation we are seeking is to allow us agree to charge on the proposed basis for local energy schemes set up within a period of up to three years from the date of the derogation. The derogation would continue for all agreed schemes for a period of up to ten years from commencement of the supply to the particular scheme. This will give confidence to those seeking to set up local generation and supply schemes, and will allow time for the proposal to be fully evaluated to demonstrate that it is delivering the benefits that are envisaged and then to bring forward a full change proposal for consideration in the normal manner. It is recognised that these issues are being faced by all DNOs and common approach may be proposed along similar lines which may remove the need to progress this proposal through the formal mechanism if a similar national approach has been developed.

The development costs of this approach are minimal as the main change is to produce alternative tariffs. There is also a need to charge for upstream charges but this can be done in the usual manner once we have received or calculated the net upstream flows. We do not see the need to change the systems for any other market participants. An impact assessment of the proposed non-compliance in accordance with Ofgem's guidance on licence derogation requests is provided in Appendix 3.

We are under tight timescales with one particular project, and we would appreciate if you could give your approval to this request at the earliest opportunity and if possible by the end of November 2016.

Yours sincerely,



DRAFT

APPENDIX 1

Background

DNOs are facing a number of challenges over the coming years

- De-carbonisation will drive increased use of electricity for heating and transportation
- Increased local generation
- Increased demand from users to facilitate local supply
- Need to ensure the charging approach develops to ensure all users make a fair contribution for using the infrastructure

For example, National Grid published their latest energy scenarios in July 2016 which identified four scenarios (Consumer Power, Gone Green, Slow Progression and No Progression), all of which show increasing electricity demand to 2040. In Gone Green, growth is primarily driven by electric vehicles and residential heat pumps which is also a feature of the other scenarios but to a lesser extent. Gone Green also projects significant growth in district heating schemes and domestic air conditioning. The scenarios also predict significant growth in distributed generation and storage.

What do these scenarios mean to DNOs?

Whilst it is not certain which, if any of the scenarios will materialise, DNOs are likely to see

- Significant local demand increases: potentially driving network reinforcement at all voltage levels.
- Significant increases in DG connections
 - also potentially driving network reinforcement at all voltage levels.
 - reduced level of DUoS from these customers: increasing charges to those remaining customers who can't afford DG
- Increased use of storage, potentially compounding the charging issue
- Increase in local supply and potentially private networks
- More district heating schemes with the further potential to install private electricity networks

Local Supply

Local supply is seen by many as a means of moving from a centralised, carbon intensive energy market that is dominated by the big six to one where the energy from community owned is sold within the local community. The economic benefits of local generation can be shared with the whole community. Stephens Scown and Regen SW in their paper Local Supply: Options for Selling Your Energy Locally list the potential benefits of local supply as:-

- Enabling locally-owned generators to sell power directly to the local community without going through the wholesale market and therefore having more control over the price
- Enabling the economic benefits of energy supply to be maximised locally, through local job creation and keeping the profits in the local economy
- Greater control over energy bills and the ability to pass on savings to customers, helping to reduce fuel poverty
- Helping communities meet their carbon and environmental objectives
- Creating social enterprises that customers trust
- Building support for local renewable energy projects scale
- Potential to overcome grid connection barriers through local supply and balancing.

One of the suggested approaches in their paper is to install a private wire between the generator and local customers.

Charging Issues

We are aware that a number of issues have been raised regarding the current charging methodologies, in particular to ensure that all users pay a fair proportion for the network, even though they may only use the network infrequently for back up. However it is important that there are no perverse incentives on users to abandon their current network arrangements to construct private networks. Local balancing of supply and demand

- reduces the need to transport energy
- potentially reduces need to reinforcement higher voltage and transmission networks
- potentially reduces losses on the network

If charging arrangements are not changed to reflect these then community energy providers will be incentivised to build private networks to serve local supplies: increasing costs on those who remain connected to DNO systems.

DRAFT

APPENDIX 2 - Proposals

Principles

In developing the charging proposals to support local generation and supply, we have used the following principles

- Customers (Local Demand Customers and Local Generation) to remain connected to the DNO Network
- Customers to retain their existing MPANs
- Customers to appoint the same supplier
- Customers may opt out and revert to conventional supply
- DUoS charging for the local network to be billed as normal (but with a discounted tariff)
- An 'upstream' DUoS tariff to be levied on the supplier to reflect any continued upstream usage
- DNO to be able to contract with the supplier for Demand Side Response

This approach effectively offers the equivalent of a Virtual Private Network over the DNO network with the customer still using and contributing to the cost of the local network and paying for the upstream network to the extent that it is used.

Definition of Local Supply

Within the context of this proposal, Local Supply and Generation will apply only to Designated Customers who are charged in accordance with the CDCM and who are connected to the same Primary (EHV/ HV) substation.

The Designated Customers must each have half-hourly metering and be assigned to one of the following tariffs

Tariff	Voltage of Connection	Metering	Measurement Class
LV Network Domestic	LV	Whole Current or Current Transformer	F
LV Network Non- Domestic Non-CT	LV	LV Whole Current	G
LV HH Metered	LV	Current Transformer	C / E
LV Sub HH Metered	LV Sub	Current Transformer	C / E
HV HH Metered	HV	Current Transformer	C / E

Tariff Proposals

The tariff proposals are as follows

Local electricity scheme downstream tariffs

For demand

Tariffs mirroring existing demand tariffs, but with discounted unit rates to reflect non-use of assets above EHV. Fixed, capacity and reactive power charges are set to equal the full normal tariff charges.

The unit charges are therefore determined by excluding the follow

- Assets 132kV, Assets 132kV/EHV, Assets EHV, Assets EHV/HV
- Operating 132kV, Operating 132kV/EHV, Operating EHV, Operating EHV/HV
- Transmission exit

For generation

Tariffs mirroring existing generation tariffs, but with no unit rate credits. Fixed, and reactive power charges are set to equal the full normal tariff charges. Any net export will receive credits as part of the upstream tariff.

Using ENWL 16/17 Final Prices, the follows DUoS Tariffs using this methodology are as follows.

Full DUoS Tariff	Unit rate 1 p/kWh	Unit rate 2 p/kWh	Unit rate 3 p/kWh	Fixed charge p/MPAN/ day	Capacity charge p/kVA/ day	Reactive power charge p/kVArh
LV Network Domestic	15.913	1.480	0.189	3.22		
LV Network Non- Domestic Non-CT	14.284	1.295	0.164	3.22		
LV HH Metered	11.332	0.932	0.117	12.37	3.01	0.329
LV Sub HH Metered	9.733	0.723	0.089	39.72	2.93	0.267
HV HH Metered	7.723	0.489	0.058	87.35	2.62	0.192
LV Generation Aggregate HH	(0.873)					
LV Generation Intermittent	(0.873)					0.183
LV Generation Non- Intermittent	(6.313)	(0.829)	(0.111)			0.183
LV Sub Generation Intermittent	(0.693)					0.152
LV Sub Generation Non- Intermittent	(5.095)	(0.640)	(0.085)			0.152
HV Generation Intermittent	(0.491)			5.96		0.114
HV Generation Non- Intermittent	(3.741)	(0.422)	(0.056)	5.96		0.114
LV Generation NHH or Aggregate HH	(0.873)					

Local Electricity Scheme Tariff	Unit rate 1 p/kWh	Unit rate 2 p/kWh	Unit rate 3 p/kWh	Fixed charge p/MPAN/ day	Capacity charge p/kVA/ day	Reactive power charge p/kVArh
LV Network Domestic	9.376	0.712	0.087	3.22		
LV Network Non- Domestic Non-CT	8.528	0.626	0.076	3.22		
LV HH Metered	6.172	0.331	0.037	12.37	3.01	0.329
LV Sub HH Metered	4.861	0.155	0.014	39.72	2.93	0.267
HV HH Metered	4.335	0.139	0.012	87.35	2.62	0.192
LV Generation Aggregate HH						
LV Generation Intermittent						0.183
LV Generation Non- Intermittent						0.183
LV Sub Generation Intermittent						0.152
LV Sub Generation Non- Intermittent						0.152
HV Generation Intermittent				5.96		0.114
HV Generation Non- Intermittent				5.96		0.114
LV Generation NHH or Aggregate HH						

Local electricity scheme upstream tariffs

Upstream tariffs will be determined on the net import or export in each half hour period of all the Designated Customers within the scheme.

Net import

Net import tariffs are determined as the difference between the Full tariff and the local supply tariff. These are shown below for 2016/17.

Local Electricity Scheme Upstream Tariff	Unit rate 1 p/kWh	Unit rate 2 p/kWh	Unit rate 3 p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Reactive power charge p/kVArh
LV Network Domestic	6.537	0.768	0.102			
LV Network Non- Domestic Non-CT	5.756	0.669	0.088			
LV HH Metered	5.160	0.601	0.080			
LV Sub HH Metered	4.872	0.568	0.075			
HV HH Metered	3.388	0.350	0.046			

Where the Local Electricity Scheme consists of customers on a number of different tariffs, the tariff with the highest estimated aggregate consumption will be used to determine which net Import tariff to apply.

Net export

Local Supply Upstream Tariff	Unit rate 1 p/kWh	Unit rate 2 p/kWh	Unit rate 3 p/kWh	Fixed charge p/MPAN/day	Capacity charge p/kVA/day	Reactive power charge p/kVArh
LV Generation Aggregate HH	(0.873)					
LV Generation Intermittent	(0.873)					
LV Generation Non-Intermittent	(6.313)	(0.829)	(0.111)			
LV Sub Generation Intermittent	(0.693)					
LV Sub Generation Non-Intermittent	(5.095)	(0.640)	(0.085)			
HV Generation Intermittent	(0.491)					
HV Generation Non-Intermittent	(3.741)	(0.422)	(0.056)			
LV Generation NHH or Aggregate HH	(0.873)					

Where the Local Scheme consists of generators with on a number of different tariffs, the tariff with the highest estimated aggregate output (in kWh) will be used to determine which net export tariff to apply.

APPENDIX 3 – Impact Assessment of Non-Compliance

Electricity North West has assessed the impact of the non-compliance and believes that there are no significant risks both to itself or to other relevant licensees or connected consumers. Detail of the assessment is provided in the following paragraphs.

3.1 Consumers

The local electricity supply scheme for DUoS charges will encourage community energy projects which are forecast to reduce costs paid by consumers and increase the revenues of the local generators. The proposals will therefore benefit customers who are included in the schemes.

Whilst in theory any discounts given to one group of customers will be paid for by others not covered by the scheme as DNOs will seek to recover their allowed revenue. However, these proposals will encourage local balancing and hence the need for reinforcement of the higher voltage and transmission networks. This will reduce costs to consumers in the long run and make it easier for consumers to connect low carbon technologies. The proposal is likely to benefit all consumers in the long run, not just those that are directly affected.

3.2 Security of Supply

Reducing the need to reinforce the upstream networks is likely to improve security of supply. Local balancing in more real time can make the system more stable and responsive which should again be beneficial to security of supply.

3.3 Competition

The proposal will give a boost to community energy projects which will boost competition in both the supply and generation of electricity.

3.4 Sustainable development

The proposal will help to minimise new network assets needed to support growth in demand. As Great Britain decarbonises the fuel sources used for space heating and for transport, more electricity will be required in substitution. Reinforcement of electricity networks is itself an energy intensive activity, with network components (transformers, conductors, insulation etc) containing high levels of embedded carbon, and with carbon intensive installation techniques (eg excavating and burying cable; reinstatement of paved/bituminous surfaces).

Local balancing will minimise the amount of new HV and EHV network needing to be installed or reinforced, thus minimizing the consumption of energy and other resources. It will also reduce network losses..

3.5 Health and safety

The health and safety impact is likely to be neutral though it may discourage the development of private electricity networks in the public highway which could increase health and safety risks.

3.6 Other parties affected

The proposals will benefit community energy providers.

No significant impacts on existing market participants have been identified. It is likely to encourage the deployment of storage solutions to support local balancing and is likely to benefit third party providers of energy storage.