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8 March 2016

Dear Keith

ERROR IN APPLICATION OF CHARGING METHODOLOGY TO DERIVE NORTHERN POWERGRID (YORKSHIRE) PLC'S USE OF SYSTEM CHARGES FOR 2016/17 AND 2017/18

Further to the telephone conversation between you and Andrew Enzor on 2 March, I am writing to provide the information that you asked for relating to the processing error that we made in applying the charging methodology to derive the Northern Powergrid (Yorkshire) plc Use of System Charges for 2016/17 and 2017/18. In short:

- The problem arose because part of the model was referencing underlying data that pertained to Northern Powergrid (Northeast) Ltd, the other licensee within our ownership group.
- The impact is not a material one, and is within the scale of the roundings that are inherent in the normal operation of the charging model: the LDNO customers as a group will, all other things being equal, be subject to an under-collection of revenue on aggregate by around £30k in 2016/17 and £45k in 2017/18 which represents around 0.01% of our allowed revenues. This is offset by the all the way tariffs which will, all other things being equal, be subject to an over-collection of revenue on aggregate by around £25k in 2016/17 and £75k in 2017/18 which represents around 0.02% of our allowed revenues. There is no impact on a mass market domestic unrestricted customer in 2016/17 and around a 3p annual impact in 2017/18.
- Our considered view is that it is in the best interests of our customers for us to leave the charges in place and make the necessary corrections in the next round of tariff announcements.

The nature and magnitude of the error

The error was made in the Price Control Disaggregation Model (PCDM) and Extended Price Control Disaggregation Model (E-PCDM) for both years. The PCDM is used to calculate percentage discounts for Licensed Distribution Network Operator (LDNO) end users at low voltage (LV) or high voltage (HV) with the LDNO connection to the host DNO's network also at LV or HV. The E-PCDM is used to calculate percentage discounts for LDNO end users at all voltages with the LDNO connection to the host DNO's network at extra-high voltage (EHV) or above, and both models interact with the Common Distribution Charging Methodology (CDCM) and the Extra-High Voltage Distribution Charging Methodology (EDCM) models.

NORTHERN POWERGRID

is the trading name of Northern Powergrid (Northeast) Ltd (Registered No: 2906593) and Northern Powergrid (Yorkshire) plc (Registered No: 4112320)

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The error arose when, having applied the model correctly to derive the charges for Northern Powergrid (Northeast) Ltd, we failed to refresh some of the inputs to the model to derive the charges for Northern Powergrid (Yorkshire) plc.

A summary of the impact of the error on the main tariffs for both 2016/17 and 2017/18 is shown in the table below. As you can see, the error has not had a material effect on charges. For more information on the impact of the error on all tariffs please see appended Tables one and two, which present the information on an average customer bill £/customer basis.

It should be noted that there is no impact on the domestic unrestricted or domestic two-rate tariff in 2016/17, which represents 92% of our Northern Powergrid (Yorkshire) customer base of 2.3 million customers. However, there is a small impact in 2017/18 tariffs with the corrected domestic unrestricted tariff decreasing by 0.001 p/kWh on the unit rate only (a reduction of 0.04% (or 3p) on the average customer bill). Again, more information on the forecast impact on an average customer's annual bill, for all tariffs, is set out in the appended Tables one and two.

Tariff	2016/17				2017/18			
	Published average charge (£/Customer)	Corrected average charge (£/Customer)	Error in average charge (£/Customer)	Error in average charge (%)	Published average charge (£/Customer)	Corrected average charge (£/Customer)	Error in average charge (£/Customer)	Error in average charge (%)
Domestic Unrestricted	84.25	84.25	-	-	78.51	78.48	0.03	0.04%
Domestic Two Rate	84.36	84.36	-	-	83.90	83.90	-	-
Small Non Domestic Unrestricted	300.24	300.10	0.14	0.05%	313.77	313.77	-	-
Small Non Domestic Two Rate	434.18	434.18	-	-	426.76	426.76	-	-
LV Medium Non-Domestic	1,811.93	1,811.93	-	-				
LV HH Metered	5,052.17	5,051.83	0.34	0.01%	4,221.75	4,221.47	0.28	0.01%
HV HH Metered	35,003.46	35,000.08	3.38	0.01%	36,199.30	36,195.90	3.40	0.01%
LDNO LV: Domestic Unrestricted	46.38	46.72	(0.34)	(0.73%)	44.40	44.74	(0.34)	(0.76%)

As can be seen from the table above the error has not had a material effect on the charges. Some of the other tariffs see minor changes in the second or third decimal place, depending on the charging element, but these movements are *de minimis*.

In summary, as a result of the error, the LDNO customer charges have been slightly suppressed due to the application of marginally higher discounts than were properly applicable to this customer group. These customers represent only about 22,000, or 1.0%, of our customer base so the impact on the rest of the customers (whose tariffs have been set a little too high as a consequence of the error) is much smaller in percentage terms. The most material percentage impact is associated with the LDNO HV: HV HH Metered tariff (not one of the major tariffs shown above), with a forecast annual benefit of about 4.5% (or £1.2k) in both 2016/17 and 2017/18 as a result of the error. This compares with the most material adverse percentage impact of the error which is associated with the small non-domestic unrestricted tariff group and is about 0.05% (or £0.14) of their forecast annual bill in 2016/17. In 2017/18 the most material adverse percentage impact of the error is associated with the domestic unrestricted tariff group and is about 0.04% (or £0.03) of their forecast annual bill.

To put some scale on the impact these errors have had on the setting of the tariffs it is worth looking at the rounding applied within the CDCM models. These models incorporate an accepted and transparent deviation from a DNO's target revenue and the revenue which charges are able to recover. The impact of our tariff setting error is not as material as the accepted rounding deviation generated by the normal operation of the charging methodologies.

Our proposed way forward

We have considered what we should now do given that the error has already been made and notice of the charges that include the error has been given to users of the Northern Powergrid (Yorkshire) plc network.

The course of action that we propose - namely to apply the charges as published and to set correctly the charges that we will calculate later this year to apply from 1 April 2018 - is one that we think is best for the users of our network. We have assessed this course of action by reference to the requirements of the licence and the Distribution Connection and Use of System Agreement (DCUSA).

With respect to the charges that will apply during 2016/17, any variation to these charges now would require a consent or direction from the Authority pursuant to paragraph 14.12 of SLC14 enabling us to amend those charges without giving the three months' notice required by paragraph 14.11 of SLC14. It is our view that we cannot do this without Authority consent because it is not a change in the assumptions that satisfies the 'material change' test of paragraph 14.12(b) of SLC14. Moreover, if we sought to correct the tariffs with effect from any date other than 1 April, this would also require a consent or direction from the Authority by virtue of paragraph 14.12(c) of SLC14.

With respect to the tariffs that will apply in 2017/18, whilst we have time to meet the three months' notice requirement stipulated in paragraph 14.11 of SLC14, the recent change to DCUSA (Clause 19.1.1(B)) requires us to give 15 months' notice of changes to the charges taking effect on or after 1 April 2017 (unless we are making the change under a direction from the Authority).

We conclude that, with respect to both years, we are unable to change the charges we have already notified unless we have the benefit of a consent or direction from the Authority.

We appreciate that it is for the Authority, rather than for us, to judge whether a direction to vary the charges should be given. However, we think that the Authority would be unlikely to conclude that such a direction should be given because any benefits to be gained from correcting the tariffs would, we submit, be greatly outweighed by the disbenefit that would come from unnecessarily disturbing the market with a very small variation in the tariffs. We say this having considered the reasoning advanced by the Authority in its decision on *Distribution Connection and Use of System Agreement (DCUSA) DCP 178 Notification period for change to use of system charges*. In that decision the Authority gave more weight to the benefits of tariff certainty in the functioning of the competitive supply and generation markets than it gave to the strict cost-reflectivity of the charges being set by the licensees.

I shall now address our proposed course of action by reference to the various licence conditions that you mentioned to Andrew. These were paragraphs 7.11 and 7.12 of SLC7, Part B of SLC14 and Part F of SLC14.

Paragraphs 7.11 and 7.12 of SLC7

These provisions apply where the licensee and another party are in dispute. No such dispute has arisen about these charges and we think that the materiality is such that a dispute is very unlikely. Moreover, if such a dispute were to arise it is clear that the Authority would find that the charges did not comply with the proper application of the charging methodology. Such a finding would not be disputed by Northern Powergrid and we do not think that our proposed course of action would preclude you from so finding.

Part B of SLC 14 (paragraph 14.2)

We recognise that our proposed course of action would leave charging statements in place until 1 April 2018 that were not strictly compliant with the charging methodology. SLC14.2 begins with the words: 'Except with the Authority's consent' and it would therefore be open to the Authority to give that consent or, alternatively, simply to take no action about the discrepancy. Having regard to the *de-minimis* impact of the error, we think that it is unnecessary to trouble the Authority with the granting of any consent under this condition.

Part F of SLC 14 (paragraphs 14.9, 14.10 and 14.11)

The requirements of paragraphs 14.9, 14.10 and 14.11 of SLC14 have already been satisfied with respect to the charges that will apply from 1 April 2016 and from 1 April 2017. No further action is required under these provisions unless we are directed to vary the charges that we have already published.

Other considerations

Ofgem may like to know what we have done to prevent a recurrence of the failing that caused this error. In that respect I can tell you that we have now changed our procedures in relation to data assurance for 'standing data' items by introducing a comprehensive audit trail of each PCDM and E-PCDM model input and documenting the subsequent impact on the outputs. We already have this in place for the CDCM and the EDCM models. This will avoid our making incorrect assumptions about 'standing data' (as occurred on this occasion), where there should have been no year-on-year change. We will also be ensuring that we incrementally update from the base models in the most recent charging year, for each individual licensee, as the starting point for the analysis, rather than transferring data from one licensee to another (as we did on this occasion).

We have already taken significant measures to ensure that data pertaining to one licensee is not present in the model relating to the other licensee, and it is unfortunate that this specific enhancement applies validation to 'linked cells', whereby hardcoded data can only be verified manually in such checks. The more extensive audit procedure will remedy the control gap which exists.

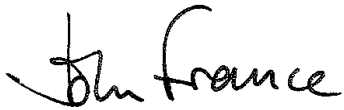
Furthermore, we believe that, if approved, the DCUSA change proposal 234 'Merging the PCDM and extended PCDM' (DCP 234), which is the forum in which the error was identified, will mitigate the likelihood of errors existing within the PCDM by improving transparency and addressing the unnecessary complexities that currently exist within the models.

I hope you will agree that the action we propose to take (i.e. to apply the charges as published and to ensure that there is no error in the tariffs that will apply from 1 April 2018) is the best thing that we can now do with the tariffs in the circumstances. If Ofgem would prefer to bring about fully compliant published charges we will, of course, take the necessary steps to achieve that acting on any consent or direction from the Authority. However, we think that the fact

that we are taking appropriate steps to secure future compliance with the condition in question and that the scale of the tariff inaccuracies that resulted from the error is trivial will lead you to the conclusion that, now that we have made you aware of the error and our proposed course of action, no further actions are necessary.

If you would like to discuss this further please let me know.

Yours sincerely

A handwritten signature in black ink that reads "John France". The signature is written in a cursive style with a large, stylized initial 'J'.

John France
Regulation Director

Table one: Average annual customer bill for Yorkshire CDCM customers - 2016/17

Tariff	Customer Count	2016/17 published average charge (£/Customer)	2016/17 corrected average charge (£/Customer)	Error in average charge (£/Customer)	Error in average charge (%)
Domestic Unrestricted	1,968,848	84.25	84.25	-	-
Domestic Two Rate	136,493	84.36	84.36	-	-
Domestic Off Peak (related MPAN)	9,006	14.32	14.32	-	-
Small Non Domestic Unrestricted	104,470	300.24	300.10	0.14	0.05%
Small Non Domestic Two Rate	30,816	434.18	434.18	-	-
Small Non Domestic Off Peak (related MPAN)	2,037	47.56	47.56	-	-
LV Medium Non-Domestic	5,106	1,811.93	1,811.93	-	-
LV Sub Medium Non-Domestic	-	-	-	-	-
HV Medium Non-Domestic	9	2,557.03	2,557.00	0.03	0.00%
LV Network Domestic	-	-	-	-	-
LV Network Non-Domestic Non-CT	1,790	2,028.59	2,028.34	0.25	0.01%
LV HH Metered	10,001	5,052.17	5,051.83	0.34	0.01%
LV Sub HH Metered	244	12,697.99	12,697.05	0.94	0.01%
HV HH Metered	1,877	35,003.46	35,000.08	3.38	0.01%
NHH UMS category A	416	935.57	935.57	-	-
NHH UMS category B	237	3,430.72	3,430.72	-	-
NHH UMS category C	25	1,357.56	1,357.56	-	-
NHH UMS category D	10	973.05	973.05	-	-
LV UMS (Pseudo HH Metered)	14	240,785.47	240,767.01	18.46	0.01%
LV Generation NHH or Aggregate HH	343	(30.58)	(30.58)	-	-
LV Sub Generation NHH	-	-	-	-	-
LV Generation Intermittent	371	(788.92)	(788.92)	-	-
LV Generation Non-Intermittent	11	(448.06)	(448.06)	-	-
LV Sub Generation Intermittent	4	(475.00)	(475.00)	-	-
LV Sub Generation Non-Intermittent	2	(24.32)	(24.32)	-	-
HV Generation Intermittent	147	(11,212.94)	(11,213.01)	0.07	(0.00%)
HV Generation Non-Intermittent	39	(13,174.80)	(13,174.87)	0.07	(0.00%)
LDNO LV: Domestic Unrestricted	9,564	46.38	46.72	(0.34)	(0.73%)
LDNO LV: Domestic Two Rate	145	72.41	72.93	(0.52)	(0.71%)
LDNO LV: Domestic Off Peak (related MPAN)	-	-	-	-	-
LDNO LV: Small Non Domestic Unrestricted	99	174.17	175.51	(1.34)	(0.76%)
LDNO LV: Small Non Domestic Two Rate	4	809.53	815.70	(6.17)	(0.76%)
LDNO LV: Small Non Domestic Off Peak (related MPAN)	-	-	-	-	-
LDNO LV: LV Medium Non-Domestic	-	-	-	-	-
LDNO LV: LV Network Domestic	-	-	-	-	-
LDNO LV: LV Network Non-Domestic Non-CT	-	-	-	-	-
LDNO LV: LV HH Metered	-	-	-	-	-
LDNO LV: NHH UMS category A	41	10.99	11.06	(0.07)	(0.63%)
LDNO LV: NHH UMS category B	-	-	-	-	-
LDNO LV: NHH UMS category C	-	-	-	-	-
LDNO LV: NHH UMS category D	-	-	-	-	-
LDNO LV: LV UMS (Pseudo HH Metered)	-	-	-	-	-
LDNO LV: LV Generation NHH or Aggregate HH	-	-	-	-	-
LDNO LV: LV Generation Intermittent	-	-	-	-	-
LDNO LV: LV Generation Non-Intermittent	-	-	-	-	-
LDNO HV: Domestic Unrestricted	10,653	30.73	31.78	(1.05)	(3.30%)
LDNO HV: Domestic Two Rate	692	27.52	28.43	(0.91)	(3.20%)
LDNO HV: Domestic Off Peak (related MPAN)	-	-	-	-	-
LDNO HV: Small Non Domestic Unrestricted	225	150.06	155.11	(5.05)	(3.26%)
LDNO HV: Small Non Domestic Two Rate	25	137.87	142.62	(4.75)	(3.33%)
LDNO HV: Small Non Domestic Off Peak (related MPAN)	-	-	-	-	-
LDNO HV: LV Medium Non-Domestic	7	906.44	937.20	(30.76)	(3.28%)
LDNO HV: LV Network Domestic	-	-	-	-	-
LDNO HV: LV Network Non-Domestic Non-CT	-	-	-	-	-
LDNO HV: LV HH Metered	22	7,641.95	7,908.08	(266.13)	(3.37%)
LDNO HV: LV Sub HH Metered	1	12,990.70	13,324.84	(334.14)	(2.51%)
LDNO HV: HV HH Metered	6	26,111.07	27,351.21	(1,240.14)	(4.53%)
LDNO HV: NHH UMS category A	32	8.40	8.68	(0.28)	(3.23%)
LDNO HV: NHH UMS category B	-	-	-	-	-
LDNO HV: NHH UMS category C	-	-	-	-	-
LDNO HV: NHH UMS category D	-	-	-	-	-
LDNO HV: LV UMS (Pseudo HH Metered)	-	-	-	-	-
LDNO HV: LV Generation NHH or Aggregate HH	-	-	-	-	-
LDNO HV: LV Sub Generation NHH	-	-	-	-	-
LDNO HV: LV Generation Intermittent	3	0.16	0.16	-	-
LDNO HV: LV Generation Non-Intermittent	-	-	-	-	-
LDNO HV: LV Sub Generation Intermittent	-	-	-	-	-
LDNO HV: LV Sub Generation Non-Intermittent	-	-	-	-	-
LDNO HV: HV Generation Intermittent	-	-	-	-	-
LDNO HV: HV Generation Non-Intermittent	-	-	-	-	-

Table two: Average customer bill for Yorkshire CDCM customers - 2017/18

Tariff	Customer Count	2017/18 published average charge (£/Customer)	2017/18 corrected average charge (£/Customer)	Error in average charge (£/Customer)	Error in average charge (%)
Domestic Unrestricted	1,976,738	78.51	78.48	0.03	0.04%
Domestic Two Rate	133,788	83.90	83.90	-	-
Domestic Off Peak (related MPAN)	8,395	14.93	14.93	-	-
Small Non Domestic Unrestricted	105,520	313.77	313.77	-	-
Small Non Domestic Two Rate	30,786	426.76	426.76	-	-
Small Non Domestic Off Peak (related MPAN)	1,938	46.38	46.38	-	-
LV Medium Non-Domestic	-	-	-	-	-
LV Sub Medium Non-Domestic	-	-	-	-	-
HV Medium Non-Domestic	-	-	-	-	-
LV Network Domestic	-	-	-	-	-
LV Network Non-Domestic Non-CT	3,601	2,029.25	2,029.02	0.23	0.01%
LV HH Metered	13,331	4,221.75	4,221.47	0.28	0.01%
LV Sub HH Metered	229	13,274.15	13,269.66	4.49	0.03%
HV HH Metered	1,880	36,199.30	36,195.90	3.40	0.01%
NHH UMS category A	389	997.74	997.74	-	-
NHH UMS category B	222	3,678.16	3,678.16	-	-
NHH UMS category C	23	1,457.38	1,457.38	-	-
NHH UMS category D	9	1,030.46	1,030.46	-	-
LV UMS (Pseudo HH Metered)	13	258,158.66	258,129.53	29.13	0.01%
LV Generation NHH or Aggregate HH	343	(29.75)	(29.75)	-	-
LV Sub Generation NHH	-	-	-	-	-
LV Generation Intermittent	371	(767.35)	(767.35)	-	-
LV Generation Non-Intermittent	11	(437.28)	(437.19)	(0.09)	0.02%
LV Sub Generation Intermittent	4	(472.02)	(472.02)	-	-
LV Sub Generation Non-Intermittent	2	(24.44)	(24.43)	(0.01)	0.04%
HV Generation Intermittent	147	(11,591.88)	(11,591.91)	0.03	(0.00%)
HV Generation Non-Intermittent	39	(13,681.00)	(13,681.04)	0.04	(0.00%)
LDNO LV: Domestic Unrestricted	14,175	44.40	44.74	(0.34)	(0.76%)
LDNO LV: Domestic Two Rate	215	73.25	73.85	(0.60)	(0.81%)
LDNO LV: Domestic Off Peak (related MPAN)	-	-	-	-	-
LDNO LV: Small Non Domestic Unrestricted	147	188.20	189.72	(1.52)	(0.80%)
LDNO LV: Small Non Domestic Two Rate	6	824.00	830.77	(6.77)	(0.81%)
LDNO LV: Small Non Domestic Off Peak (related MPAN)	-	-	-	-	-
LDNO LV: LV Medium Non-Domestic	-	-	-	-	-
LDNO LV: LV Network Domestic	-	-	-	-	-
LDNO LV: LV Network Non-Domestic Non-CT	-	-	-	-	-
LDNO LV: LV HH Metered	-	-	-	-	-
LDNO LV: NHH UMS category A	61	11.30	11.38	(0.08)	(0.70%)
LDNO LV: NHH UMS category B	-	-	-	-	-
LDNO LV: NHH UMS category C	-	-	-	-	-
LDNO LV: NHH UMS category D	-	-	-	-	-
LDNO LV: LV UMS (Pseudo HH Metered)	-	-	-	-	-
LDNO LV: LV Generation NHH or Aggregate HH	-	-	-	-	-
LDNO LV: LV Generation Intermittent	-	-	-	-	-
LDNO LV: LV Generation Non-Intermittent	-	-	-	-	-
LDNO HV: Domestic Unrestricted	15,789	29.67	30.66	(0.99)	(3.23%)
LDNO HV: Domestic Two Rate	1,026	27.90	28.85	(0.95)	(3.29%)
LDNO HV: Domestic Off Peak (related MPAN)	-	-	-	-	-
LDNO HV: Small Non Domestic Unrestricted	334	163.14	168.64	(5.50)	(3.26%)
LDNO HV: Small Non Domestic Two Rate	37	142.05	146.79	(4.74)	(3.23%)
LDNO HV: Small Non Domestic Off Peak (related MPAN)	-	-	-	-	-
LDNO HV: LV Medium Non-Domestic	10	932.80	964.54	(31.74)	(3.29%)
LDNO HV: LV Network Domestic	-	-	-	-	-
LDNO HV: LV Network Non-Domestic Non-CT	-	-	-	-	-
LDNO HV: LV HH Metered	33	7,652.42	7,911.74	(259.32)	(3.28%)
LDNO HV: LV Sub HH Metered	2	12,360.04	12,680.01	(319.97)	(2.52%)
LDNO HV: HV HH Metered	9	25,701.70	26,874.42	(1,172.72)	(4.36%)
LDNO HV: NHH UMS category A	48	8.70	8.99	(0.29)	(3.23%)
LDNO HV: NHH UMS category B	-	-	-	-	-
LDNO HV: NHH UMS category C	-	-	-	-	-
LDNO HV: NHH UMS category D	-	-	-	-	-
LDNO HV: LV UMS (Pseudo HH Metered)	-	-	-	-	-
LDNO HV: LV Generation NHH or Aggregate HH	-	-	-	-	-
LDNO HV: LV Sub Generation NHH	-	-	-	-	-
LDNO HV: LV Generation Intermittent	3	0.16	0.16	-	-
LDNO HV: LV Generation Non-Intermittent	-	-	-	-	-
LDNO HV: LV Sub Generation Intermittent	-	-	-	-	-
LDNO HV: LV Sub Generation Non-Intermittent	-	-	-	-	-
LDNO HV: HV Generation Intermittent	-	-	-	-	-
LDNO HV: HV Generation Non-Intermittent	-	-	-	-	-