25 September 2008

distributionpolicy@ofgem.gov.uk

Karron Baker
Electricity Distribution
The Office of Gas and Electricity Markets
9 Millbank
LONDON
SW1P 3GE

Dear Karron

Consultation on Proposals from Electricity North West Limited to modify use of system charges for independent distribution network operators (IDNOs), HV/LV generators and the DRM.

Executive Summary

We are writing in response to the above named consultation which was issued by the Authority on 22 August 2008.

In the consultation the Authority sets out three questions that specifically relate to the proposed IDNO tariffs;

a) Respondents' views on the use of a day/night restricted tariff for IDNOs;

b) Whether respondents consider the lack of an IDNO commercial tariff would influence the development of IDNO commercial connections; and

c) Whether respondents agree with the approach to avoided costs attributed to IDNOs.

Our detailed responses to the above questions are set out below but in summary IPNL believes: -

a) The proposed day/night unit structure for the proposed IDNO tariffs cannot be objectively justified and is therefore discriminatory given that such a structure is not used for charging similar customer premises on ENW's own network;

b) The lack of an appropriately priced IDNO tariff for commercial customers would adversely influence the development of IDNO connections because no margin is created;

c) The approach to avoided costs is too narrow, is derived from a model which is not appropriate, leaves an IDNO with insufficient income to operate its networks and does not reflect the approach to margin squeeze adopted by the court.

IPNL has also conducted further analysis of the assumptions used by ENW in their modification proposal to estimate the impact of the tariffs on IDNO margins and we believe that these clearly demonstrate a further margin squeeze, over and above the

margin squeeze which we have already alleged to be taking place, and (something which gives us no confidence) directly contradicts the movements suggested by ENW in their original modification proposal.

You will be aware that IPNL wrote to you on August 8 2008 setting out its initial objections to the ENW proposal which is now the subject of this consultation. We note that the three questions set out above directly reflect our concerns.

[REDACTED TEXT]

a) any location specific boundary tariff unfairly prejudices IDNO customers as all customers other than certain EHV customers, are currently charged on a DSA wide tariff regardless of location;

b) location specific boundary tariffs make the calculation of asset values difficult and ambiguous, cause excessive costs for the DNO and IDNO in administration and severely impact upon the IDNO's ability to bid for new opportunities;

c) the assumptions used in the new proposal for calculating IDNO income are misleading and therefore not cost reflective;

d) the day unit charge at the boundary exceeds the unit charge at the end customer;

e) The Authority has recently vetoed an almost identical proposal for the application of IDNO tariffs from another DNO.

Conclusions

With regard to the specific questions raised in the consultation IPNL believes the current proposal should be vetoed because: -

a) The proposed form of the day/night restricted tariff. The proposal does not meet relevant objective 3 (c) of standard licence condition 4 which requires the charging methodology to reflect the costs incurred;

b) The absence of a tariff for commercial customers will continue to adversely affect competition. Without such a tariff we are unable to serve suppliers active in the commercial customer market. The proposal therefore does not meet objective 3 (b) of standard condition 4 which requires the charging methodology to facilitate competition in the generation and supply of electricity;

c) The avoided costs approach, among other things, conflicts with the case law on margin squeeze. The changes suggested by the avoided costs approach used by ENW imply a real reduction in IDNO incomes. A decision by the Authority not to veto the proposal cannot, we suggest, be consistent with the Authority's duties to exercise its functions so as to secure that licence holders are able to finance the carrying on of their activities under the licence and the Electricity Act 1989.

These reasons are in addition to those we have already indicated i.e.:

d) The proposal does not recognise the position taken by the Authority when it approved the WPD modification proposal that recognised that IDNO networks

do not consist of purely domestic or purely non-domestic connections and reflected this in a specific IDNO tariff;

e) The proposal does not address the concerns of the Authority in response to SP Distribution and SP Manweb's joint modification proposal PR-008-001a;

f) For the reasons mentioned in a) – e) above the proposal does not therefore satisfy the requirements of Chapter II of the Competition Act 1998.

In light of the above IPNL believes Ofgem should **VETO** this proposal.

Next steps

We propose contacting your office in the next week or so to arrange a mutually convenient time to come and meet with you to discuss this response. In the meantime if you have any queries please do not hesitate to contact me on 029 2031 4136.

Yours sincerely

Russell Ward
Director of Legal and Regulatory affairs

IPNL's comments on specific points raised in the consultation

1. Use of a day/night restricted tariffs for IDNOs.

The vast majority of domestic customers are charged on an unrestricted tariff and so there is no justification for charging a restricted tariff to an IDNO network servicing a group of these customers. The obvious cost reflectivity question to raise is: why does an aggregation of customers having similar load characteristics require separate treatment?

Condition 4C(5) of ENW's licence requires that: -

> *"…the licencee shall not make charges for providing use of system to any person or class or classes of persons which differ from the charges for such provision to any other person or class or classes of person, except insofar as such differences reasonably reflect difference in the costs associated with such provision"*

This means that charges to all customers must not differ unless the customers can be justifiably distinguished on cost grounds alone. Where domestic customers are involved no such justification arises.

The range of tariffs currently offered by DNOs in essence reflect two key characteristics; voltage of supply and end use of the customer. This long established principle is clearly set out in the 1984 Tariff Formulation Manual published by the then Electricity Council which states: -

> *"as a rule customers should be grouped together with others having similar load characteristics that distinguish them from other customer groups".*

This principle was one of the core ones used by DNOs in building the Distribution Reinforcement model (DRM) which they still use to formulate tariffs and whose construction was set out in the same manual.

Consequently all DNOs apply a specific tariff to a class of customers which they have identified as constituting a group having common characteristics e.g. domestic unrestricted etc. They formulate a yardstick tariff for these customer classes that reflects the load characteristics of a typical customer in this class and chose to charge this customer and all similar customers in the same class through a suitably structured tariff.

Nearly all the IDNO connections to date consist of sites of new housing where most customers are on the IDNO's domestic unrestricted tariff for reasons linked to compliance with Condition BA2. For all DNOs the domestic unrestricted tariff currently comprises either a single unit rate or a combination of fixed charge/single unit rate. This approach again follows that recommended in the Tariff Formulation Manual, which clearly states: -

> *"although all customers of an electricity supply authority could in theory be charged under a single cost reflective set of rates that would be fair and economically efficient, the need for consumer understanding of the tariff and the limits on tariff complexity imposed by the cost of metering*

and administration suggest that customers be segmented into different classes".

In its domestic unrestricted tariff the DNO does not differentiate its charges to reflect the fact that a particular domestic unrestricted customer uses more or less electricity at night than the average one. Under the current form of the price control applied to the IDNO IPNL cannot differentiate its charges to domestic unrestricted customers either. Thus the impact of a day/night restricted boundary tariff on an IDNO site of domestic unrestricted customers will feed directly to the IDNOs margin. In formulating its domestic unrestricted tariff the DNO does not consider variation in day/night use between individual customers as warranting separate charges so any requirement on an IDNO is unjustifiable and unnecessary unless a DNO can demonstrate that domestic customers on IDNO sites are radically different in their usage to those of the DNO or that their behaviour will change radically because they chose an IDNO rather than a DNO to build their network.

All DNOs have detailed information on unit volumes, day/night unit splits, capacity requirements and losses but few provide sufficient detail when explaining how these are used in tariff formulation.

In formulating any DUoS tariff the DNO makes use of these parameters in devising its tariff yardsticks – if the domestic unrestricted tariff is therefore set with regard to certain consumptions/load characteristics then the charge to the IDNO should use similar parameters in constructing an IDNO boundary tariff.

In addition the current DNO parameters do not include any distance related features so these should not form part of any IDNO tariff either. ENW has been unable/unwilling to provide IPNL with any information for the Bandings it will assign to our existing low voltage sites in the ENW area suggesting to us that the administration of such a system is fraught with practical difficulties and will be expensive to Implement and maintain.

2. Absence of a commercial tariff

The absence of a commercial tariff continues the existing DNO monopoly of providing connections for such sites.

All DNOs extend their networks to meet the requirements of new customers. These customers can be domestic or non-domestic or a combination of both and any non-domestic customers can vary dramatically in the requirements they have as regards electricity use/capacity.

The ENW modification proposal with regards to IDNO tariff formulation is written from the simplistic point of view that all IDNO connections consist either entirely of domestic properties or entirely of non-domestic properties. There is no middle ground. This position contrasts sharply with the Authority approved WPD modification proposal for IDNO tariffs that recognised IDNO networks as being predominantly domestic or predominantly non-domestic so allowing some leeway for mixed sites.

The absence of a specific IDNO commercial tariff and the detrimental effect this has on IDNO activity in this market is most clearly indicated in the case of an individual non domestic customer on an IDNO network which is fed from a neighbouring DNO network. Under the existing form of IDNO price control the tariff charged by the IDNO to the final customer will be identical to that charged to the IDNO by the DNO so the IDNO will receive no income to maintain/administer the site – indeed it could be

faced with boundary metering and losses on the recorded consumption which mean it actually loses money. ENW has made no allowance or attempt to allow for avoided costs as a result of IDNO activity. Consequently there will be no IDNO activity in this area of the market.

All DNOs initially argued that their existing large user tariffs were totally suitable and applicable for use as charges to be levied on IDNOs at the boundary. IPNL believes that the tardiness of several DNOs to produce any IDNO tariffs at all reflects this basic point. Additionally since the DNOs stated that existing tariffs were totally cost reflective any resulting IDNO margins should also be cost reflective. IDNO objections to existing tariffs largely centred on the fact that tariffs were applied according to capacity requirements that caused violent changes in IDNO incomes when the thresholds were crossed and that because the tariffs were designed for large users on the smallest IDNO sites the DNO charges to the IDNO were greater than the IDNO charges to the final customer.

A major issue which ENW has failed to address in its proposal regards the application of capacity charges. At present if a developer approaches a DNO for a connection to its system he pays a connection charge relating to any reinforcement needed to cater for it. The DNO then recovers DUoS charges from the customers as they connect properties on the site. From the DNO point of view an IDNO is a single large customer so it will pay the same connection charge but also incur capacity charges for the whole site from the date that site is energised whether or not there are any end customers to use it. IPNL welcomed the pragmatic approach taken by Central Networks in its approved modification proposal that fully recognised this issue and proposed charging capacity for IDNO sites on the basis of monthly maximum demand. ENW's proposal has failed to address this issue at all.

A key point is that any use of existing tariffs must by definition exclude any savings in avoided costs as a result of IDNO activity.

3. The approach to avoided costs

From its analysis IPNL believes that ENW has assumed an extremely narrow definition of avoided costs and has offset a large proportion of these through additional and unjustifiable administration charges and a reallocation of costs as against those recovered previously. ENW's approach to charging, i.e. one which uses an avoided costs approach, provides the IDNO with insufficient revenue to own an operate an embedded network and is an approach which has not been followed by the courts.

In its proposal ENW states that its proposed LDNO tariffs *'exclude the typical costs avoided by us in our network provision to a LDNO'*. It states that:

> *"it is proposed to reduce the current customer service, billing and administration costs by £14.86 to reflect these avoided costs' whilst it intends to cap the cost of monthly billing functionality 'at the level of the current automated billing processes".*

If IPNL interprets this correctly we would expect to see each customer on our network producing a margin of at least £14.86 with further amounts of margin being made available for the operation and maintenance of our network. We believe that the whole definition of avoided costs is however ambiguous and we are unsure what the £14.86 actually refers to i.e. customer or site.

The ENW charging modification proposal is a complex document in which the introduction of IDNO and DG tariffs is being made at the same time as significant changes to the underlying methodology for the calculation of tariffs in general. It is therefore important that the effects of the underlying changes to the methodology are removed so that the true nature of the new tariffs as they affect IDNOs and DGs is revealed.

In order to isolate the avoided costs IPNL believes ENW has actually used in setting its tariffs the company has conducted a more extensive analysis of the data provided in section 4 of the ENW modification proposal. Our analysis sets out to identify the changes to ENW's charges as a result of the specific introduction of the LDNO tariff as opposed to changes to the underlying tariff methodology.

Table 1 below shows our understanding of how the various changes have contributed to the new tariff proposed for an LDNO at Band 1 Low voltage.

The upper section of the table is an analysis of the tariff components. The existing April 2008 tariff is the current ENW half hourly low voltage tariff with the proposed 2008 rate being the final tariff proposed for the IDNO. The columns headed boundary, revenue, availability, O&M and cost show the ENW provided impact of the proposed methodology changes of these components against the existing April tariff.

Using the data provided it is possible to deduce the starting point for the IDNO tariff that ENW has presumably formed from the existing low voltage half hourly tariff. This new tariff presumably incorporates some or all of former capacity charge as a unit charge and reduces the current fixed charge to reflect avoided costs. The lower section of the table shows the financial effects of the ENW tariff charged as to an IDNO in respect of a network consisting of 50 domestic unrestricted customers with an assumed average consumption of 3900 kWh each, a capacity requirement of 2 kVA per customer and a 75/25 day/night % unit split.

The data shows that the impact of the new tariff is to initially reduce charges by £557 which is equivalent to £11.14 per customer – IPNL concludes this is the level of avoided costs built into the tariff for a LV Band 1 customer. More worryingly however the impact of the proposed methodology changes is to clawback £485 of that saving reduction in increased charges going forward.

			ENW published equivalent April 08 tariffs consistent with changes to components of the underlying methodology					
Analysis of tariff	existing April 2008 rates	implied IDNO April 2008	connection boundary	revenue	availability	o+m	cost	Proposed rate
fixed charge pence per month	2242	790	480	790	790	779	907	587
day unit charge p/kWh	0.43	1.375	1.68	1.45	1.32	1.42	1.35	1.72
night unit charge p/kWh	0.09	0.088	0.09	0.12	0.08	0.08	0.08	0.098
capacity pence per kVA per month	147							
Analysis of DUoS bill for 50 plot LDNO embedded network on Band 1 tariff								
Fixed charge	£269	£95	£58	£95	£95	£93	£109	£70
Day units	£629	£2,011	£2,457	£2,121	£1,931	£2,077	£1,974	£2,516
Night units	£44	£43	£44	£59	£39	£39	£39	£48
Capacity	£1,764	£0	£0	£0	£0	£0	£0	£0
Total	£2,706	£2,149	£2,558	£2,274	£2,064	£2,209	£2,122	£2,634
Impact of revised tariff		-£557	£410	£125	-£84	£61	-£26	£485

IPNL has repeated the above exercise for LV Band 2, Band 3 and Band 4 connected sites, which impose increasingly higher charges on the IDNO as the exit point is further away from the nearest ENW substation. In these cases the figures suggested

for avoided costs are £9.56, £8.07 and £6.46 respectively. In all these cases the initial reduction in the IDNO tariff will be offset by the proposed changes in the methodology.

Table 2 below shows a similar analysis undertaken at HV. It can be seen that the new tariff is initially reducing the IDNO charge by £3245 equivalent to £8.11 per plot whilst the impact of the proposed methodology changes are set to recover £2074 of the £3245 through increased charges. Again we interpret the £8.11 as the reduction for avoided costs.

			ENW published equivalent April 08 tariffs consistent with changes to components of the underlying methodology					
Analysis of tariff	existing April 2008 rates	implied IDNO April 2008	connection boundary	revenue	availability	o+m	cost	Proposed rate
fixed charge pence per month	14561	11907	2894	11907	11907	11596	12024	2701
day unit charge p/kWh	0.24	0.92	1.19	0.83	0.92	0.98	0.94	1.18
night unit charge p/kWh	0.06	0.125	0.14	0.17	0.11	0.12	0.12	0.16
	116							
Analysis of DUoS bill for 400 plot LDNO embedded network on HV tariff								
Fixed charge	£1,747	£1,429	£347	£1,429	£1,429	£1,392	£1,443	£324
Day units	£2,808	£10,764	£13,923	£9,711	£10,764	£11,466	£10,998	£13,806
Night units	£234	£488	£546	£663	£429	£468	£468	£624
Capacity	£11,136	£0	£0	£0	£0	£0	£0	£0
Total	£15,925	£12,680	£14,816	£11,803	£12,622	£13,326	£12,909	£14,754
Impact of revised tariff		-£3,245	£2,136	-£877	-£58	£645	£229	£2,074

4. Further analysis of the impact of the proposed tariffs on IDNO margins

In its modification proposal ENW states that 'The margins available to LDNOs are comparable at LV with the current negative margins removed at lower numbers of customers. The margins available to LDNOs are increased at HV.' IPNL totally disagrees with these statements.

In determining the true financial impact of any proposed DNO IDNO specific tariffs on IDNO margins it is imperative that the Authority is satisfied that realistic and appropriate assumptions are made concerning unit volumes, capacity, day/night unit splits and losses.

IPNL has conducted a review of the publically available information for the Electricity North West area for the above factors. We believe the Authority has far more detailed information which is collected as part of its audit of compliance with price controls with which to verify and justify the ENW assumptions.

In August 2007 United Utilities (now ENW) submitted to the Authority a modification proposal to introduce asset adoption payments (UU/2008/002.1). Appendix B of this document sets out the detail of the assumptions underlying the formulation of the domestic unrestricted tariff. This stated that the average consumption of a domestic unrestricted customer was 3328 kWh with an ADMD of 1.2 kVA per customer.

In its April 2005 Authority approved 'Statement of charging methodology for Use of United Utilities Electricity Distribution Network' the average domestic unrestricted consumption is stated as 3400kWh but no kW figure is given. In its latest DUoS charging statement ENW imply that the loss factors from the GSP to an LV exit point is about 3 percentage points higher than that stated for HV.

No detail is provided on day/night unit splits but in its approved Modification proposal WPD/WALES/WEST/UOS006 of December 2007 WPD assumed a night percentage

of 15.7%. A night consumption of c15% is in line with IPNL's own analysis of load research data produced by the former Electricity Association.

IPNL believes that any analysis of the current and proposed margins on IDNO sites in the ENW area should be based on the data suggested above. Ideally the data should be provided by ENW itself and any variations from it should be justified. In the meantime IPNL believes that any analysis should be based on an average consumption of 3400 kWh, an ADMD of 1.2 per property and an 85/15 day/night unit split and 3% LV losses. For completeness we have assumed a loss rate of 4% for a HV connected site.

IPNL does not accept that the starting point for impact analysis should be the low voltage half hourly tariff. This tariff is only applicable where the site maximum demand would be expected to be greater than 100 kW. As stated above the ADMD used by ENW for a typical domestic customer is 1.2kVA per plot – a site with 50 houses would therefore generate a peak demand of about 60 kW so the site should be currently charged on the low voltage non half hourly tariff.

On the basis of the above assumptions the following tables shows the impact of the proposed tariffs on existing margins. We conclude that the proposed Band 1 tariff reduces existing margins by 57% with reductions at Band 2, Band 3 and Band 4 at 62%, 67 % and 72% respectively. At HV the reduction is 22%. If the IDNO had continued access to the current tariffs the margins under the proposed tariffs would increase on their current levels.

IDNO margin analysis LV site of 50 houses

50 Plot LV connected site		April 2008 LV MD non half hourly	Proposed IDNO Band 1	Proposed IDNO Band 2	Proposed IDNO Band 3	Proposed IDNO Band 4	Proposed LV MD non half hourly
IDNO charges to end customer		£3,187	£3,219	£3,219	£3,219	£3,219	£3,219
DNO	Fixed charge	£151	£70	£70	£70	£70	£93
Boundary charges	Day unit charge	£640	£2,560	£2,619	£2,679	£2,739	£967
	Night unit charge	£24	£26	£29	£32	£37	£26
	Capacity charge	£1,058					£756
	Total charge	£1,873	£2,657	£2,719	£2,781	£2,846	£1,843
Net IDNO income for site		£1,314	£563	£500	£438	£374	£1,376
IDNO margin per plot		£26.28	£11.25	£10.01	£8.77	£7.47	£27.53

Assumptions

Published April 2008 tariffs and proposed post mdification rates per ENW/2009/001.1
Domestic unresticted consumption 3400 kWh pa

Day/night unit split 85%/15%
Capacity 1.2 kVA per domestic connection
Losses - 3% on LV connected sites and 4% on HV ones

IDNO margin analysis HV site of 400 houses

400 Plot HV connected site		April 2008 HV MD half hourly	Proposed HV IDNO	Proposed HV MD half hourly
IDNO charges to end customer		£25,495	£25,754	£25,754
DNO	Fixed charge	£1,747	£324	£397
Boundary charges	Day unit charge	£2,885	£14,186	£2,765
	Night unit charge	£127	£339	£191
	Capacity charge	£6,682		£6,451
	Total charge	£11,441	£14,850	£9,804
Net IDNO income for site		£14,053	£10,904	£15,950
IDNO margin per plot		£35.13	£27.26	£39.87

Assumptions

Published April 2008 tariffs and proposed post mdification rates per ENW/2009/001.1
Domestic unresticted consumption 3400 kWh pa
Day/night unit split 85%/15%
Capacity 1.2 kVA per domestic connection
Losses - 3% on LV connected sites and 4% on HV ones

In previous IPNL meetings with ENW and other DNOs all DNOs have consistently argued that their existing large user low voltage and high voltage tariffs are entirely suitable for use in charging embedded connections. The key implication of this is that the existing IDNO margins must be correct and logically these should be further increased if the DNO adjusts its current (supposedly cost reflective) charges to allow for avoided costs.

5. Conclusion

We conclude that in devising its new IDNO tariffs ENW, like WPD, has reallocated costs to IDNO networks as compared to those currently assumed in their existing large non-domestic tariffs. We believe that ENW has only referred to this fundamental point in passing when it states in the description of the modification section of its proposal:

> *"ENW proposes to use the DRM to model the costs of the distribution network to the point of connection where an IDNO connects to our distribution network. This will provide the tariffs that exclude the typical costs avoided by us in our network provision to an IDNO".*

In reality the proposed use and ability of the DRM to provide estimates of avoided costs is the key part of the whole process. In the light of the values produced IPNL questions the suitability of the DRM for answering this question, since the result is a significant and unjustifiable reduction in IDNO margins and a totally unrealistic value for avoided costs.

We believe that the unrealistic level of avoided costs is further demonstrated by the negative margins on the smallest sites. If tariffs are set on a marginal basis to recover the costs on each tier of the network, it's hard to see how costs recovered upstream by the DNO for serving a marginal customer could be greater than the charges recovered down stream from the IDNO since this implies the marginal costs

are not being fully recovered downstream. This suggests the upstream costs must be over-recovered to compensate – a typical example of a monopolist exploiting its market dominance through price discrimination.

Using the assumptions suggested above an IDNO would not receive any net income on any site consisting of fewer than 5 plots. We therefore fundamentally disagree with ENW's claim that it has dealt with the issue of negative margins on smaller sites and believe this failure is driven by its incorrect calculation of avoided costs and an incorrect allocation of costs in the first place.

25.9.08