Index

1 EXECUTIVE SUMMARY ........................................................................................................... 3

2 INTRODUCTION AND REGULATORY REQUIREMENTS ..................................................... 5

3 BACKGROUND ........................................................................................................................ 6

3.1 TARIFF STRUCTURE ........................................................................................................... 6

3.2 CUSTOMER NUMBERS AND DEMAND ............................................................................ 6

3.3 RISK TREATMENT ............................................................................................................... 6

4 COMPONENTS ........................................................................................................................ 7

4.1 WHOLESALE ....................................................................................................................... 7

4.1.1 Construction of a Portfolio Supply Tariff (PST) ............................................................... 7

4.1.2 Contracts for Differences ................................................................................................. 8

4.1.3 Pool ................................................................................................................................... 8

4.1.4 Bilateral Purchases ......................................................................................................... 8

4.1.5 Capacity charge .............................................................................................................. 8

4.1.6 Other charges ................................................................................................................. 8

4.1.7 Load management ......................................................................................................... 9

4.2 TRANSMISSION .................................................................................................................... 9

4.3 DISTRIBUTION .................................................................................................................... 9

4.4 LEVIES ................................................................................................................................. 9

4.5 POWER NI’S OWN COSTS AND MARGIN ...................................................................... 9

4.6 CORRECTION FACTOR ...................................................................................................... 9

5 OTHER TERMS ....................................................................................................................... 10

6 OTHER SUPPLY OBLIGATIONS ......................................................................................... 10

6.1 SUPPLIER OF LAST RESORT ........................................................................................... 10

6.2 UNIVERSAL SERVICE OBLIGATION ............................................................................... 10

6.3 NORTHERN IRELAND RENEWABLES OBLIGATION (NIRO) ....................................... 10

7 REPORTING ........................................................................................................................... 10

8 PRICE CONTROL .................................................................................................................. 11

9 APPENDIX 1 .......................................................................................................................... 12

10 APPENDIX 2 ........................................................................................................................ 13
1 **Executive summary**

In setting tariffs Power NI must abide by various conditions of its licence, particularly those controlling its prices and preventing undue discrimination between customers or cross-subsidy.

This tariff methodology statement explains how Power NI intends to calculate its regulated tariffs\(^1\) for the October 2017 – September 2018 period given the information that will then be available to it on the likely costs of supply.

Power NI intends to maintain the categories of its existing domestic tariffs after the deregulation of non domestic tariffs from April 2017. Power NI will keep under review the introduction of further tariffs in this sector. Power NI will notify the Utility Regulator prior to the introduction of such tariffs.

Through its regulated tariffs, Power NI is permitted to recover an amount equal to its wholesale generation, transmission costs, distribution costs, renewable obligation costs, any correction factor and an allowed revenue for the supply business itself\(^2\). The charges on each tariff will be set so that there is an expectation that, at the forecast demand, they will recover an amount equal to the expected costs and allowed revenue allocated to that tariff.

The process of allocating transmission, distribution and supply costs, which are governed by their own price controls, is relatively simple. Wholesale, or generation costs, will be allocated between half-hours according to a Portfolio Supply Tariff (PST) for all time periods from which, given the load shape assumed for the tariff category, the generation component of the charge can be calculated. The half hour PST will be calculated using generation contract costs, forecast pool costs and other generation items\(^3\) that are mainly preset by the regulators or market operators. It is expected that, using Power NI’s base forecast for demand, pool prices, contract costs etc., forecast revenue from the wholesale price component of the tariff will equal forecast generation costs.

In the all-island retail market there may be errors in the forecasts of demand and of the costs of serving it. These may stem from a number of factors including variations in customer numbers and their electricity consumption, inaccuracy of loss factors, weather, theft, electricity pool and fuel prices, plant availability, regulatory policy uncertainty and exchange rates. Power NI’s policy towards abating these risks is set out in its hedging policy statement. However, this will not result in their complete removal. Power NI will therefore monitor their impact prior to, and over the course of the year. Having due regard to the relative level of uncertainty in tariffs, if they cumulatively lead to a likelihood of an error exceeding \(\pm 2.5\%\) in any year, Power NI will consider the introduction of a tariff adjustment.

---

\(^{1}\) Regulated tariffs are relevant to “Regulated Customers” as defined in Power NI’s licence (Latest modifications - Annex II)

\(^{2}\) See Appendix 2

\(^{3}\) including without limitation; capacity charges, imperfections charges, currency exposure costs, market operator charges, CfD associated costs, collateral costs, and de minimis micro-generation costs
Power NI will modify this Statement if the scope of the future price control leads to a change in the extent of regulated tariffs.
2 Introduction and regulatory requirements

A number of conditions of Power NI’s licence affect how it may set its regulated tariffs. In particular it is required to:

- Use its best endeavours to ensure that the average charge per unit supplied does not exceed a price control maximum, which is calculated by adding the average cost of its purchases of electricity generation, transmission etc to an allowed supply business charge;
- Ensure that it does not sell electricity to any customer in any market in which it is dominant, on terms which are materially more or less favourable than those on which it sells to other comparable customers;
- Avoid cross-subsidising other businesses.

In order to assist the Utility Regulator in scrutinising its adherence to these and other licence conditions, Power NI provides information to the Regulator. This includes advance notice of the tariffs themselves and forecasts of what it expects to be its average charge and average costs.

This tariff methodology statement precedes the provision of information on tariffs and forecasts of average revenues and costs. It explains how, at a later date, Power NI intends to set its tariffs for the October 2017 – September 2018 period given the information that will then be available to it on its likely costs of supply.
3 Background

Following the deregulation of the non-domestic sector in April 2017, tariff customers for the current and forthcoming tariff will consist exclusively of domestic customers. With active domestic competition and customer migration between suppliers, Power NI expects a reduction in the overall number of customers served in 2017/18.

3.1 Tariff structure

Power NI intends to maintain the categories of its existing domestic tariffs.

Thus Power NI expects to set 5 tariffs, in addition to serving some customers on discontinued tariffs such as the “off-peak” preserved tariffs.

These are:

- **Domestic**
  - Home energy – a per unit price with no standing charge. As will, to some extent, be the case on any tariff its structure does not entirely match that of the cost drivers, since there are some fixed costs. However, the tariff is; socially progressive, popular and matches the price structure of most goods and services purchased by customers.
  - Eco-energy – a similar tariff to home energy.
  - Power-shift tariff – utilising keypad metering time of day functionality.
  - Energy shift tariff - standard domestic time of day.
- **Economy 7** – a tariff with more disaggregated charges, i.e. a standing charge and separate day and night unit rates.

The terms of all tariffs differ slightly depending on whether payment is made by quarterly credit, direct debit\(^4\) or keypad prepayment meter. Such differential pricing is reflective of the underlying cost to serve for each payment type.

3.2 Customer numbers and demand

Power NI will project the number of customers on each tariff based on previous years’ recorded numbers and projections of household formation, economic activity and competitive customer migration.

The demand on each tariff will also be projected based on previous years’ recorded numbers, projections of customer numbers and economic activity. This will be done over the entire load shape resulting in a projected demand in each half hour.

3.3 Risk treatment

There will be risks to the forecasts of demand and to the costs of serving demand from a number of factors including variations in:

\(^4\) Postal channel, or On-line
Power NI’s policy towards abating these risks is set out in its hedging policy statement. However, this will not result in their complete removal. Power NI will therefore monitor their impact over the year. If they cumulatively lead to a likelihood of an error exceeding ± 2.5% in any year, Power NI will consider the introduction of a tariff adjustment within the year.

4 Components

Through its regulated tariffs, Power NI is permitted to recover an amount equal to its wholesale generation, transmission costs, distribution costs, renewable obligation costs, any correction factor plus an allowed revenue for the supply business itself\(^5\). The charges on each tariff will be set so that there is an expectation that, at the forecast demand, they will recover an amount equal to the expected costs and allowed revenue allocated to that tariff.

4.1 Wholesale

4.1.1 Construction of a Portfolio Supply Tariff (PST)

Wholesale, or generation costs, will be allocated between half-hours on a portfolio supply charge for all time periods. This will be derived by calculating the cost per unit averaged over groups of time periods. Given the load shape assumed for a particular tariff category, the generation component of the tariff can be calculated. It is expected that, using Power NI’s base forecast for demand, pool prices, fuel prices etc, forecast revenue from this component will equal forecast generation costs.

While the wholesale price for the load to be served at the pool price indexed tariff has been modelled in the PST, it will in reality be based on the ex post pool price plus other relevant TSC charges. Hence any changes in SMP cost should be fully reflected through the energy price adjustment mechanism.

\(^5\) See Appendix 2
4.1.2 Contracts for Differences

Power NI will examine its contract (i.e. CfD) portfolio and allocate costs to each time period. The precise method of doing so will depend on the details of the contract portfolio but Power NI expects that:

- Where there is a two-way contract or hedge the cost of the demand covered by the contract assessed at the contract strike price will be largely allocated to that period.
- Where there is a one-way contract or hedge the allocated cost will be the demand covered by the contract assessed at the expected price, which is the expected value of the distribution of pool prices truncated by the strike price of the contract at the upper end.
- Where there is a premium payment, it will be allocated to the time periods covered by the contract. The allocation between periods may depend on the perception of the degree of risk in each period.
- Where there is expected over-contracting, perhaps because it was not economic to tailor the portfolio precisely to forecast demand, any expected cost of the overcontracting in overcontracted periods is likely to be allocated to other periods covered by the contract.

Normally, i.e. unless there are particularly skewed risk distributions; Power NI will calculate the cost of its contract portfolio using expected values of customer demand, pool prices, fuel prices etc.

4.1.3 Pool

Uncovered demand will be assumed to pay the expected pool price. This methodology has been extended to I-SEM.

4.1.4 Bilateral Purchases

Power NI may purchase energy on a bilateral basis. Examples of this may include, but not be limited to, de-minimis generation and purchases of energy over the interconnector. Power NI will apply the costs of any bilateral trades, after taking into account any applicable associated costs (e.g. interconnector capacity costs etc.), using the same methodology as outlined for CfD costs.

4.1.5 Capacity charge

Power NI use the capacity payment period sums, which are set in advance, to forecast capacity charges on a half hour by half hour basis. These capacity charges are then allocated to demand in the relevant time periods through the PST.

In the event that final capacity payment period sums are not published at the time of preparing tariffs, Power NI will use the best information available at that time for the purposes of tariff setting.

4.1.6 Other charges

Imperfections and market operator charges are also set in advance and will be allocated to the appropriate period. The SEMO administered currency charge has an expected minimal value and will be charged on a simple per unit allocation, as will any charge associated with credit.
In the event that final imperfections and market operator charges are not published at the time of preparing tariffs, Power NI will use the best information available at that time for the purposes of tariff setting.

4.1.7 Load management
The allocation of the charges described under 4.1.2 to 4.1.6 will result in a Portfolio Supply Tariff, but Power NI may consider further adjustments if it considers that they are necessary to manage load and prevent it migrating with consequent changes in the pool price in the time periods from and to which the load migrates. Economy 7 night charge rates may be an example where a load incentive may be warranted.

4.2 Transmission
An element representing transmission charges will be included in each tariff. It is expected that the transmission charges for the 2017/18 tariff year will be published on a non tariff specific basis.

4.3 Distribution
An element representing distribution charges will be included in each tariff. Expected receipts on the tariff will normally equal expected distribution charge payments and any distribution services charges (i.e. common services transaction charges). Where the tariff contains charge elements (e.g. standing charge, unit charge, maximum demand charge) that are similar to those under which distribution charges are levied, the structure of the tariff charge element will normally mimic that of the distribution charge.

4.4 Levies
The PSO levy is expected to continue to be charged on a tariff basis (i.e. delivered unit basis), with SSS continuing to be charged at Trading Point along with the CAIR charge associated with the Moyle Interconnector.

4.5 Power NI’s own costs and margin
An element representing Power NI’s own costs and net margin will be included in each tariff. Expected receipts on the tariff will normally equal expected allowed revenue.

4.6 Correction factor
There will be an allocation of recovery correction to each tariff, based on an estimate of the proportion of the error that is related to the tariff.
5 Other terms

The terms of all tariffs will differ depending on whether payment is made by quarterly credit, direct debit or keypad prepayment meter.

6 Other supply obligations

6.1 Supplier of last resort

Power NI will maintain a supplier of last resort tariff in the form of a pass through tariff for larger customers. In the event of a supplier of last resort event being triggered, Power NI will consider whether the option of other tariffs can also be offered to the customers in question (e.g. standard tariff for smaller customers until the next review point).

6.2 Universal service obligation

Power NI's tariffs are available on a contractual basis to all customers that are connected to the network. This effectively discharges its Universal Service Obligation, which relates to the right of customers to be supplied with electricity of a specified quality within their territory at reasonable, easily and clearly comparable and transparent prices. However, depending on the credit situation, Power NI may require an individual customer to be supplied on particular credit terms.

6.3 Northern Ireland Renewables Obligation (NIRO)

In common with all other electricity suppliers operating in Northern Ireland, Power NI is obliged to purchase a portion of the electricity it sells from renewable sources. For year ending March 2018 Power NI must present Ofgem with Renewables Obligation Certificates (ROC’s) to the value of 0.167/MWh of electricity supplied, by using an estimated buy out payment of £45.58/MWh for any shortfall or a combination of both.

In the absence of a published figure Power NI has assumed that for the next financial year this obligation increases to 0.180/MWh, with the buy out price increasing by RPI. Power NI’s tariff year straddles both financial years.

7 Reporting

Power NI’s licence requires it to provide a forecast of its allowed average revenue and the average cost components no later than fourteen days before any change in supply charges or, if there is no change in charges, within three months of the start of a year.

---

6 A relevant year as defined in the price control.
To support this forecast Power NI will provide a statement of the hedges that it has purchased in advance of the period together with its expectation of the average cost of generation in the groups of time periods that it uses to calculate its tariffs (i.e. the Portfolio Supply Tariff).

The licence also requires that Power NI send a statement of the average cost that has been incurred in each component within three months after the end of the price control year.

8 Price Control

Power NI will apply the formula as stated in Annex 2 of its licence through the 2017/18 tariff horizon.

UR may implement a licence modification in relation to the applicability of Annex 2 within this tariff timeline. As a prelude to any modification, Power NI, following communication with customers, may amend the portfolio of tariffs offered to customers.
Current Domestic Tariffs

<table>
<thead>
<tr>
<th>Tariff Category</th>
<th>Tariff Description</th>
<th>Duos Reference</th>
<th>Item</th>
<th>Actual Apr-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Energy quarterly</td>
<td>Home Energy standard</td>
<td>T011</td>
<td>Standing Charge /Qtr unit rate p/kWh</td>
<td>13.99</td>
</tr>
<tr>
<td>Keypad Home Energy</td>
<td>Standing Charge</td>
<td>T053</td>
<td>p/kWh</td>
<td>13.64</td>
</tr>
<tr>
<td>Home Energy Economy 7</td>
<td>Standing Charge</td>
<td>T014</td>
<td>p/kWh</td>
<td>14.18</td>
</tr>
<tr>
<td></td>
<td>Day Rate</td>
<td></td>
<td>p/kWh</td>
<td>6.92</td>
</tr>
<tr>
<td></td>
<td>Night and heating Rate</td>
<td></td>
<td>p/kWh</td>
<td>6.75</td>
</tr>
<tr>
<td>Keypad Economy 7</td>
<td>Standing Charge</td>
<td>T054</td>
<td>/Qtr</td>
<td>6.56</td>
</tr>
<tr>
<td></td>
<td>Day Rate</td>
<td></td>
<td>p/kWh</td>
<td>13.83</td>
</tr>
<tr>
<td></td>
<td>Night and heating Rate</td>
<td></td>
<td>p/kWh</td>
<td>6.75</td>
</tr>
<tr>
<td>Keypad Powershift</td>
<td>Standing Charge</td>
<td>T016</td>
<td>/Qtr</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td></td>
<td>p/kWh</td>
<td>8.17</td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td></td>
<td>p/kWh</td>
<td>12.25</td>
</tr>
<tr>
<td></td>
<td>Peak</td>
<td></td>
<td>p/kWh</td>
<td>21.80</td>
</tr>
<tr>
<td></td>
<td>Standing Charge</td>
<td>T016</td>
<td>(Energyshift) Weekday day rate p/kWh</td>
<td>15.880</td>
</tr>
<tr>
<td></td>
<td>Weekday peak rate</td>
<td></td>
<td>p/kWh</td>
<td>23.13</td>
</tr>
<tr>
<td></td>
<td>Weekday evening and weekend day p/kWh</td>
<td>12.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Weekday night and weekend night p/kWh</td>
<td>9.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keypad Time of Day</td>
<td>Standing Charge</td>
<td>T050</td>
<td>(Energyshift) Weekday day rate p/kWh</td>
<td>15.480</td>
</tr>
<tr>
<td></td>
<td>Weekday peak rate</td>
<td></td>
<td>p/kWh</td>
<td>22.56</td>
</tr>
<tr>
<td></td>
<td>Weekday evening and weekend day p/kWh</td>
<td>12.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Weekday night and weekend night p/kWh</td>
<td>9.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off peak tariffs (preserved)</td>
<td>Standing Charge</td>
<td>T045</td>
<td>/Qtr</td>
<td>11.12</td>
</tr>
<tr>
<td></td>
<td>8 hour</td>
<td></td>
<td>p/kWh</td>
<td>9.99</td>
</tr>
<tr>
<td></td>
<td>11 hour</td>
<td>T046</td>
<td>unit rate p/kWh</td>
<td>9.99</td>
</tr>
<tr>
<td></td>
<td>15 hour</td>
<td>T047</td>
<td>unit rate p/kWh</td>
<td>9.99</td>
</tr>
<tr>
<td></td>
<td>16/18 hour</td>
<td>T048</td>
<td>unit rate p/kWh</td>
<td>9.99</td>
</tr>
</tbody>
</table>
Power NI’s Key Tariff Inputs

\[ M_{St} = G_t + U_t + S_t + E_t + J_t - D_t + K_t \]

- **Retail Tariff Inputs**
  - Generation Costs \( G_t \)
  - T&D Costs \( U_t \)
  - Supply Entitlement \( S_t + E_t \)
  - NIRO Costs \( J_t - D_t \)

- **Generation Costs**
  - Energy (SEM & I-SEM)
  - Capacity
  - Imperfection Charges
  - Currency Exposure
  - MO Charges
  - CfD related costs
  - Collateral costs
  - De minimis generation costs (i.e. micro-gen)
  - Balancing costs

- **T&D Costs**
  - DUoS
  - TUoS
  - PSO Levy
  - SSS Levy
  - CAIRt
  - Distribution Services

- **Supply Entitlement**
  - Core entitlement
  - SEM / Systems / Directive related costs

- **NIRO Costs**
  - Buy-out costs
  - Less any residual savings in meeting the RO

The **Portfolio Supply Tariff (PST)** will be constructed reflecting these input costs.