

Northern Ireland Electricity's

Power Procurement Business

Initial Consultation Paper

Price Control Proposals issued by
The Director General of Electricity Supply (NI)
for the period April 2002 – March 2004

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CHAPTER 1

Introduction

The Power Procurement Business (PPB) Price Control : April 1997 – March 2002

The PPB was set up at privatisation in 1992 as a separate regulated business under Northern Ireland Electricity's combined [Transmission and Public Electricity Supply Licences](#).

The PPB's role, as defined under the Supply Competition Code, was to act as a single buyer for the purchase of wholesale electricity in Northern Ireland, and to sell this wholesale electricity to licenced suppliers (including NIE's own Supply Business) at a published and regulated tariff, the Bulk Supply Tariff (BST). NIE, via the PPB, purchases energy from independently owned generators under long term contracts (Power Purchase Agreements – PPAs) which were put in place prior to privatisation, and continue in force until expiry or cancellation in 2010 – 2012. These contracts are a "pass through cost" and form the largest element of cost under the BST.

The PPB price control, which came into force on 1 April 1997, has altered significantly in the course of the five year period due to a change in market structure brought about by the adoption of the European Union Directive EC/96/92 concerning the Internal Market in Electricity (IME). This required, amongst other things, that the System Operations business, formerly considered as part of PPB for price control purposes, be separately constituted. As a result the PPB price control was split into two parts, based on the existing revenue assumptions, and the revenues allocated between the remainder of PPB and the System Operations business, now known as System Operator Northern Ireland (SONI). SONI is subject to a similar review process at this time. The relevant modifications have been made to NIE's licences to reflect the new structures.

Background

The price control period which is the subject of this initial discussion paper will run from 1 April 2002 to 31 March 2004. This abbreviated period is a reflection of the uncertainties surrounding the position of the PPB in the developing Northern Ireland electricity market. It is now likely that the next EU Energy Directive will call for complete market liberalisation within the next 5-6 years. The exact nature of this initiative will become clearer within the next year. Depending on the pace of development of the industry over the two year period, it may be prudent to consider extending the proposed interim control for a further year at the discretion of the Director General of Electricity Supply for Northern Ireland (DGES), should prevailing circumstances require it.

Within the existing market opening brought about by the IME Directive, of 35% of aggregate NI system demand, the PPB has already seen its incentive structure modified. The transition of PPB from a single buyer of wholesale power to a market

participant and energy wholesaler must be facilitated by this interim review, and the price control components will reflect this.

The Existing Power Procurement Price Control

The existing price control formula is outlined at **Appendix 1**, and came into operation on 1 April 1997. From the year 2000/01 the control was modified to take account of the new roles placed on the System Operations (SONI) part of the previous PPB structure, which now is separately defined as the Transmission System Operator Business in NIE’s licence.

The control was modified such that NIE PPB’s own costs were recovered through an allowance per unit sold at the Bulk Supply Tariff, and an allowance per unit sold at non-BST rates. Sales at the BST reflect the sales made to the non-liberalised element of the NI market. While the non-eligible market is technically open to competition from other suppliers, the requirement to buy at BST effectively limits the degree of non-NIE supply. Therefore BST sales are largely made to NIE’s own Supply business, and are also made as “top-up” energy to those suppliers in the eligible sector which do not have sufficient independently-sourced energy to meet their customers’ demand. Non BST sales are those sales which are made to other parties such as ESB in the Republic, and are not made at a set or regulated tariff price.

The allowance for BST sales for the period up to 31 March 2002 was set at 0.02p/kWh, and for non-BST sales at 0.12p/kWh. The objective of the greater revenue allowance for non-BST sales was to encourage PPB to maximise the use of its contracted generation plant by making additional sales over and above the BST sales to the NI market, and hence make a contribution to lower electricity prices by reducing the gross level of the BST.

That principle carries on into the interim price control described below.

PPB Profits and Value Added

Although the smallest of NIE’s regulated businesses, PPB has a critical role in the functioning of the electricity market. Its profits since privatisation amount to £37.89 million and are set out in Table 1 below.

Table 1 : Profit earned by PPB since 1992

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Profit/loss * (£m)	1.2	3.4	6.3	9.8	7.5	3.6	4.4	(0.61)	2.3

- Profit/loss on ordinary activities before interest

Source NIE Regulated accounts, figures in 2001/02 prices.

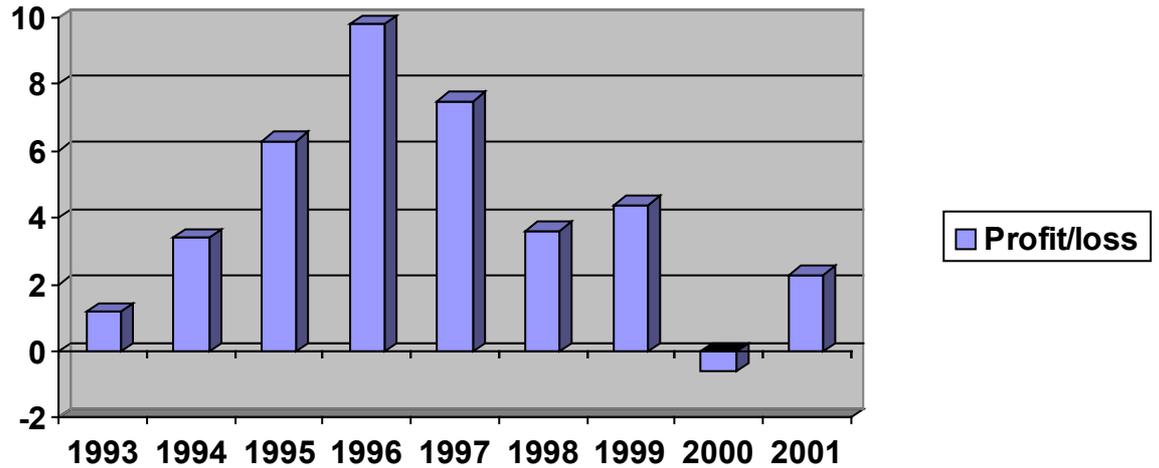


Figure 1 PPB Profit Illustration

Since liberalisation there has been a movement to incentivise PPB to earn additional revenues outside the franchise market and to reward its ability to add value for franchise customers. Table 2 below sets out the revenue PPB has earned by non-BST sales under the incentive element of the existing price control, and the added value for customers. The DGES believes that PPB's future profits should be earned primarily by adding value through non-BST sales. With further market changes PPB is well positioned to earn additional profits, though insofar as PPB's downside risk will remain capped, so too must the upside potential for profit taking - albeit asymmetrically skewed in favour of PPB.

Table 2 : Non BST Revenues (CBt), and BST Revenues (CAt)

	<u>2001/02</u>	<u>2002-03</u>
CBt	£ 0.43 m	£ 0.21 m
CAt	£ 1.23	£ 1.34 m

As expected sales from BST fall over time with further liberalisation of the market, the potential still exists for PPB to maximise the possible return from its generation contracts by selling its capacity into the market at its best possible price. Any contribution over and above fuel price should therefore add value for franchise customers; hence an appropriate reward incentive should apply. Given that PPB will be in possession of generation contracts covering potential output of 8000 GWh, then it will continue to have an important role in the developing wholesale market.

CHAPTER 2

Duration of the Interim Control

The position of the PPB in the developing market structures is uncertain. Its role is suited to a closed and tightly regulated market, and does not easily translate into a market that is progressively liberalised, in which the concepts of wholesale and retail competition are introduced, and where an all-island trading regime may be introduced.

Properly led however the PPB could play a crucial role in developing an effective competitive market in generation for the benefit of customers.

These challenges will need to be addressed in detail over the next few years, and the two year control (extendable by one year at the DGES's discretion) will assist in that process in two ways. Firstly, the short time-span will mean that nothing will be put in place now which will be difficult to unravel when new structures are needed, and secondly, the future role of the PPB will almost certainly involve trading its capacity in the market in some form. Hence the incentive structure of the existing control could be carried forward in to the new market structure, and will encourage PPB to seek sales opportunities now which will provide valuable experience.

The Structure of the New Control

The new price control will be based on the same principles as, but will not be a simple continuation of, the existing control. A number of important factors have changed and need to be reflected in the interim arrangements. The following sections will outline the initial proposals of the DGES.

The existing PPB Price Control Formula provides a suitable starting point to develop the analysis.

$$M_{Bt} = (1-r)A_t + rB_t \left(\frac{Q_{BBt} + Q_t}{Q_t} \right) + C_{At} + C_{Bt} \left(\frac{Q_{BBt}}{Q_t} \right) + D_t + K_{Bt}$$

where: M_{Bt} means the maximum average charge per unit sold in relevant year t , and the terms are as defined in Appendix 1.

The equation above will be analysed by component:

A_t is the total cost of energy purchase under the long term PPAs and includes capacity and fuel payments made to generators as part of the long term contracts.

B_t is a reference price or "yardstick" composed of relevant fuel price indices.

r means, in respect of the first five relevant years commencing 1st April 1992, 0.1 and in respect of subsequent relevant years thereafter, commencing 1st April 1997, 0.05.

Q_t means the quantity sold in relevant year t;

Q_{BBt} means the aggregate quantity of units sold in relevant year t by the power procurement manager at a tariff (or at a price) other than the bulk supply tariff to relevant suppliers inside the authorised supply area or at a tariff (or at a price) other than the bulk supply tariff to persons (including generators) inside the authorised supply area or at a tariff (or at a price) other than the bulk supply tariff to persons outside the authorised supply area metered at grid supply points and including the aggregate quantity of units sold in relevant year t by the power procurement manager to relevant suppliers inside the authorised supply area or to persons outside the authorised supply area by the power procurement manager acting as a virtual independent power producer, metered at grid supply points;

C_{At} means the allowed power procurement charge in pence per unit sold in relevant year t which is derived from the following formula:

$$C_{At} = C_{At-1}(1 + rpi_t / 100)$$

(but in relation to the ninth relevant year, C_{At} shall have a value equal to 0.02000 pence and a value equal to zero in previous years (see Schedule 10));

where:

rpi_t means the percentage change (whether a positive or negative value) in the Retail Prices Index between that published or determined with respect to October in the relevant year t and that published or determined with respect to the immediately preceding October; and

C_{Bt} means the allowed power procurement incentive to encourage trading in pence per unit sold in relevant year t which is derived from the following formula:

$$C_{Bt} = C_{Bt-1} (1 + rpi_t / 100)$$

(but in relation to the ninth relevant year, C_{Bt} shall have a value equal to 0.1200 pence and a value equal to zero in previous years (see Schedule 10));

where:

rpi_t means the percentage change (whether a positive or negative value) in the Retail Prices Index between that published or determined with respect to October in the relevant year t and that published or determined with respect to the immediately preceding October;

D_t is the excluded Power Procurement Cost term, and K_t is the correction factor.

The above equation demonstrates two incentive devices. The first is the B_t term.

The B_t term was established in the first price control set in 1992, to give PPB an incentive to control and manage BST costs over which it had significant control - the

purchase price of fuel and the effective management of the generation contracts themselves. The Bt term was made up of a basket of fuel price indices, which were then used as a yardstick against which NIE's actual contracted generation (including fuel) price would be compared on an annual basis. The equation shows that NIE passes through 95% of actual generation costs, and 5% of the Bt reference price, so if NIE is able to beat the yardstick it may retain the difference, up to a maximum level of £2million, and equally may make a loss, but the loss is restricted to £2 million. In the first price control period (1992-1997), the r term was 10%, and the cap and collar were £4 million. This was modified for the period 1997-2002, and the components of the Bt term were re-balanced to reflect the use of natural gas as a generation fuel source for the first time. It was decided in 1997 that the yardstick mechanism should be retained, but that the cap and collar arrangements were too wide and the maximum profit too easily attainable.

The cap and collar arrangements suited a structure where PPB acted as a monopoly/monopsony and therefore had no other commercial or regulatory pressures to maximise revenues by either cost minimisation or sales maximisation. That is no longer the case. The new market structures have significantly affected PPB, and as a result the price control was modified in 2000 to specifically encourage PPB to make sales at a non-BST price. This encouragement was a specific monetary allowance per unit sold, set at 0.12 p/kWh, which is 6 times higher than the allowance for sales at BST.

CHAPTER 3

The Next Regulatory Period

The regulatory period 1 April 2002 to 31 March 2004 is an important transitional phase for the PPB. The interim control must allow PPB to recover sufficient revenues to meet its licence obligations but equally must encourage the PPB to act in a more commercial manner to prepare for future liberalisation. This is a balance which can be achieved.

Several important factors must be taken into account. Firstly, the amount of revenue under consideration is small in relative terms when considered against the entirety of the cost base of the electricity industry in NI, but the importance of the PPB as a participant in the electricity industry both now and in the future should not be underestimated. Secondly the duration of the control is such that it will permit modest change in structure and while not leading to an immediate transition to full market participation by PPB, could enable PPB to function effectively in a more competitive environment.

The Yardstick

The DGES, having received price control submissions from PPB, and having taken economic advice on the subject of the Yardstick term proposes that in the Price Control for the Interim Period, the Yardstick (Bt term) shall either be removed from the price control, or modified in some manner.

(a) Removal of the Bt term

The logic for the retention of the Bt term has now been at least partly eroded by the incentive placed on NIE to operate in a manner which ensures that it minimises the cost of wholesale generation purchase as a normal course of business, and which potentially obviates the need for a specific input cost incentive. Since the Bt incentive has in the past two price control periods resulted in PPB easily achieving the maximum allowable profit from the Bt term provisions, there is a case for its removal.

NIE PPB will still be able to fully conduct its licenced activities as a result of this change, as its price control revenues will derive from units sold at BST, and from units sold at non-BST rates.

(b) Modification of the Bt term

The Bt term at its inception was too easy to beat – the structure of the incentive formula was such that the achievement of the target on an annual basis meant the recovery of the maximum allowable incentive payment. If it can be shown that the concept of the Bt term has value in terms of an explicit

incentive to effectively manage the generation contracts (in order to then recoup whatever costs are incurred in such management via an incentive payment) then a modified Bt term would be considered. The DGES's initial view is that such a modification must radically alter the certainties of achieving the Yardstick target. The DGES will consider whether modification of the Bt term components (such as the B0 component and the XGt component) are appropriate; whether the value of r should be reduced from 0.05 to a lower figure or whether once achieved in year t any new yardstick formula should be automatically re-based for year t+1. A balanced combination of these measures may be appropriate.

Non-BST Sales

The DGES has sought to encourage PPB to utilise its generation contracts in the most efficient manner. It is evident as the eligible market provisions under the IME Directive have developed, up to the current 35% market opening, that the quantum of energy which could be produced by capacity under contract to PPB is in excess of the demand from the non-eligible sector of the market. Given that the interconnector with Scotland has been in operation since 1 January 2002 and the emergence of indigenous Independent Power Producers (IPPs), the eligible sector of the market will no longer require significant supplies of wholesale energy from PPB. This was an expected consequence of the IME Directive when adopted in Northern Ireland in 1999. As a result NIE has been encouraged to make alternative use of its generation contracts by the incentive mechanism described above, which yields an additional revenue allowance for non-BST sales.

The DGES proposes to continue this approach.

The CA_t term was set at 0.02p/kWh for the last two years of the existing control (inflation adjustable). The DGES proposes to freeze this level for the two year period.

This will result in revenues to PPB (based on an assumed BST sale of 5440 GWh) of approximately £1.08 million.

Further Initiatives

PPB has contracted to sell energy equivalent to the rights to its 125 MW take-or-pay contract with Scottish Power (SP), which was agreed as part of the process which led to the construction of the Scotland-Northern Ireland ("Moyle") electricity interconnector.

This process known as the Moyle Equivalent Energy auction (MEE) will allow PPB to recover revenues from suppliers which acquire the energy rights for the year 2002-03. This revenue allows NIE to meet the obligations to SP under the take-or-pay contract without including the costs in the BST, which is levied primarily on non-eligible customers. This has a double benefit of reducing the extent of the BST as the need for capacity to serve the non-eligible sector decreases and ensures that those

parties which value the energy most (ie the eligible customers), will be able to purchase it via their suppliers' auction acquisitions.

The energy equivalent which may be auctioned will equate to around 1000 GWh over each twelve month period. It is presumed at this point that PPB will hold a further MEE auction for the period 2003-04.

This, and other non-BST sales (eg sales to IPPs or sales to ESB) will attract a new 0.1p/kWh incentive.

This mix of incentives is intended to encourage PPB to continue to seek to maximise its generation capacity's potential by seeking to maximise its portfolio of sales, and simultaneously minimise fuel and other input costs.

Should PPB seek, under its own volition, at a future date to make any potential excess generation output available to the market at a non-BST price, then it would (subject to a suitable economic purchasing case being made to the DGES) attract the 0.1 p/kWh incentive payment. Thus the efficient management of generation resources under contract to PPB is inextricably linked to PPB revenues.

The DGES would encourage the Power Procurement Business to post daily information on a website detailing the expected level of generation available for the following day (or such future period as is suitable) such that other market participants may have sufficient information as to availability and cost of output available for sale by PPB. This will maximise the revenue potential of PPB, and promote the efficient utilisation of the generation contracts, thereby minimising total system cost to the NI electricity industry.

A new regulatory formula for PPB could take the form:

$$M_{Bt} = A_t + [Bt] + C_{At} + C_{Bt}(Q_{BBt}/ Q_t) + \text{GREEN INCENTIVE} + D_t + K_{Bt}$$

Where C_{Bt} is 0.1 p/kWh.

Other terms are as above.

Should PPB enter into any other form of contract or business relationship with market participants at its own risk, and which does not place any penalties on consumers via any detrimental effect on the BST, then sales made to these entities will be assessed as attracting the 0.1p/kWh incentive payment.

Renewable Electricity

The PPB already acts as the purchaser of energy from renewable generators under the Non-Fossil Fuel Obligation (NFFO) Orders I and II, which required NIE to purchase the output of the renewable generators, and allowed the recovery of excess costs from customers. The excess cost of NFFO is currently recovered in the Public Service Obligation (PSO) charge. In the year 2001/02 PPB held an auction of NFFO output

rights, and allocated the output to market participants. This was intended to allow those suppliers which had a market for renewable electricity to obtain green energy to meet their customers' demand. It also allowed the excess cost of NFFO to be reduced, hence reducing the burden on all customers. The auction was a success, and will be continued in the year 2002/03.

As an addition, from 2002/03, PPB should take on a further role in the encouragement of more renewable electricity development by acting as a purchaser of last resort for independent (non-NFFO) renewable output. This would add certainty to the renewable market, and encourage the commercial development of renewables, hence avoiding some or all of any future government levy. It is envisaged that a bilateral renewables market should develop, such that customers and Renewable Independent Power Producers (RIPPs) should contract independently. Any energy produced and not sold by RIPPs would be purchased at a fixed price by PPB (which would be based on a percentage of the market price of renewable energy and initially set at 3p). PPB could then re-package and sell this renewable energy on to suppliers, who could sell to final customers.

The NIE incentive would be reflected in the difference between purchase and sale prices, the larger part of which should be retained as profit by PPB. NIE would be indemnified against making a loss by the ability to pass through any costs not met through the PSO levy.

Risk and Uncertainty

The DGES recognises that there may arise certain unforeseen costs as a result of market liberalisation which do not fit into any of the specific categories contained in the analysis outlined above. With this in mind, the Dt term should be considered to include any such cost which the DGES deems to be allowable but not covered elsewhere in the price control formula. The approval of such costs would be required before they were incurred.

The Asset Base of PPB

This analysis does not derive PPB regulated income from the application of a typical RPI-X price control formula, nor does it establish a modified asset base for PPB. The nature and short duration of the proposed control dilutes the efficacy of this approach. The BST sales allowance as set in 2000 was based on the adjusted asset base for the period 1997-2002. The continuation of this allowance into 2002-04 effectively preserves that asset base implicitly. The area of PPB asset value will be re-visited as part of the next stage of the evolution of the PPB, to be implemented from April 2004.

Conclusion

The effect of these proposals for the period 2002 – 2004 will be to modify the risk profile which applies to the PPB business, with the intention of allowing PPB to earn

revenues from sales into the market. However they also open for PPB the opportunity, through incentives which align customer and shareholder interests, of substantially increasing profits through adding value for customers as Northern Ireland moves to develop a fully liberalised generation market.

Comments on the issues contained in this Initial Consultation Paper should be sent by Friday 22 March 2002, to

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Please include a one-page summary with submissions.

Appendix 1 : The PPB Price Control Formulae, Regulatory Period 2.

Restriction of the bulk supply tariff: basic formula

The licensee shall in setting the bulk supply tariff use its best endeavours to ensure that in any relevant year the average charge per unit sold shall not exceed the maximum average charge per unit sold calculated in accordance with the following formula:

$$M_{Bt} = (1-r)A_t + rB_t \left(\frac{Q_{BBt} + Q_t}{Q_t} \right) + C_{At} + C_{Bt} \left(\frac{Q_{BBt}}{Q_t} \right) + D_t + K_{Bt}$$

where:

M_{Bt} means the maximum average charge per unit sold in relevant year t.

r means, in respect of the first five relevant years commencing 1st April 1992, 0.1 and in respect of subsequent relevant years thereafter, commencing 1st April 1997, 0.05.

A_t means the unit costs incurred in the purchase of electricity in pence per unit sold in relevant year t derived by:

- (a) aggregating amounts payable by the power procurement manager to any person in relevant year t (measured on an accruals basis) for:
 - (i) the provision to the power procurement manager of the total available capacity of contracted generation sets and the purchase of electricity excluding payments for System Support Services and excluding the costs of the gas turbines contracted under the cancellable generating unit agreements as outlined in Schedule 8 and excluding the excess cost of the Rathlin purchase tariff;
 - (ii) the provision or use of any interconnector;
 - (iii) the early termination or amendment of any power purchase agreement;
 - (iv) holding stocks of fuel or other materials for the purposes of generation of electricity; and
 - (v) the provision of any other services approved by the Director for the purpose of this paragraph;
- (b) deducting the excluded power procurement costs (to the extent that those costs are included in sub-paragraph (a)) and the allowed change of law costs for relevant year t;
- (c) adding the net amount (whether a positive or a negative number) payable or receivable (as the case may be and measured on an accruals basis) by the power procurement manager in relevant year t in respect of

electricity purchase or sale contracts and other contracts designed to enable the power procurement manager to hedge fuel price or exchange rate risks;

- (d) no longer used; and
- (e) dividing the resulting amount by the quantity sold in relevant year t.

B_t means the reference purchase cost of electricity in pence per unit sold in relevant year t determined by the following formula:

$$B_t = \frac{B_0(a_{0t}H_{Gt}RPI_t/RPI_0 + a_{1t}RPI_t/RPI_0 + (1 - N_t)(a_{2t}HFO_t + a_{3t}COAL_t + a_{4t}GAS_t))}{E_t}$$

where:

- B_0 means the notified value;
- RPI_t means the level of the Retail Prices Index (1987 = 100) published or determined with respect to October of relevant year t;
- RPI_0 means the level of the Retail Prices Index (1987 = 100) published or determined with respect to October 1991;
- HFO_t means the level of the sterling heavy fuel oil price index determined according to Schedule 7 with respect to relevant year t;
- $COAL_t$ means the level of the sterling coal price index determined according to Schedule 7 with respect to relevant year t;
- GAS_t means the level of the sterling gas price index determined according to Schedule 7 with respect to relevant year t;
- a_{0t} means the notified value for relevant year t;
- a_{1t} means the notified value for relevant year t;
- a_{2t} means the notified value for relevant year t;
- a_{3t} means the notified value for relevant year t;
- a_{4t} means the notified value for relevant year t;
- E_t means an adjustment in respect of excluded power procurement costs in relevant year t which:
 - (i) if there are any fuel security periods or periods of force majeure in relevant year t, is equal to:

- (a) a number determined in accordance with the following formula:

$$E_t = (A_{t-1} - A_{E_{t-1}})/A_{t-1}; \text{ or}$$

- (b) a number determined by the Director upon the application of the licensee; and
- (ii) if there are no fuel security periods or periods of force majeure in relevant year t, is equal to 1;

where:

A_{t-1} means the costs incurred in the purchase of electricity in relevant year t-1 (or if there were any fuel security periods or periods of force majeure during that year, the last relevant year which did not contain fuel security periods or periods of force majeure which in aggregate continued for more than 14 days);

A_{Et-1} means the costs incurred in the purchase of electricity during the periods of relevant year t-1 (or if there were any fuel security periods or periods of force majeure during that year, the last relevant year which did not contain fuel security periods or periods of force majeure which in aggregate continued for more than 14 days) which correspond to the fuel security periods and periods of force majeure in relevant year t calculated in accordance with a basis for attributing costs between different periods of the year approved by the Director;

H_{Gt} is determined according to the following formula:

$$H_{Gt} = H_{Gt-1}(1 - X_{Gt}/100)$$

(but in relation to the first relevant year, H_{Gt-1} shall have a value equal to 1);

where:

X_{Gt} means the notified value for relevant year t.

N_t means, for the first five relevant years t, zero and, for subsequent relevant years t, an adjustment in respect of non-fossil fuel generation in relevant year t determined according to the following formula:

$$N_t = O_t R_t / (Q_t + Q_{BBt})$$

where

O_t means the aggregate quantity of units metered on entry to the total system from non-fossil fuel generating stations (for the capacity and output of which the power procurement manager has contracted in compliance with one or more orders given by the Department in relation to the licensee under Article 35(1) of the Order) in the

relevant year t (and whose cost is treated as an excluded power procurement cost);

R_t means 0.905;

Q_t means the quantity sold in relevant year t;

Q_{BBt} means the aggregate quantity of units sold in relevant year t by the power procurement manager at a tariff (or at a price) other than the bulk supply tariff to relevant suppliers inside the authorised supply area or at a tariff (or at a price) other than the bulk supply tariff to persons (including generators) inside the authorised supply area or at a tariff (or at a price) other than the bulk supply tariff to persons outside the authorised supply area metered at grid supply points and including the aggregate quantity of units sold in relevant year t by the power procurement manager to relevant suppliers inside the authorised supply area or to persons outside the authorised supply area by the power procurement manager acting as a virtual independent power producer, metered at grid supply points;

and

C_{At} means the allowed power procurement charge in pence per unit sold in relevant year t which is derived from the following formula:

$$C_{At} = C_{At-1}(1 + rpi_t / 100)$$

(but in relation to the ninth relevant year, C_{At} shall have a value equal to 0.02000 pence and a value equal to zero in previous years);

where:

rpi_t means the percentage change (whether a positive or negative value) in the Retail Prices Index between that published or determined with respect to October in the relevant year t and that published or determined with respect to the immediately preceding October; and

C_{Bt} means the allowed power procurement incentive to encourage trading in pence per unit sold in relevant year t which is derived from the following formula:

$$C_{Bt} = C_{Bt-1} (1 + rpi_t / 100)$$

(but in relation to the ninth relevant year, C_{Bt} shall have a value equal to 0.1200 pence and a value equal to zero in previous years);

where:

rpi_t means the percentage change (whether a positive or negative value) in the Retail Prices Index between that published or determined with respect to October in the

relevant year t and that published or determined with respect to the immediately preceding October;

D_t means the allowed charge in pence per unit sold in relevant year t for excluded power procurement costs and changes of law calculated by dividing the excluded power procurement costs plus the allowed change of law revenues less the excess cost of NFFO for relevant year t by the quantity sold in relevant year t.

K_{Bt} means a correction factor in pence per unit sold (whether a positive or negative value) to be applied to the average charge per unit sold in relevant year t derived using the following formula:

$$K_{Bt} = [(Q_{Bt-1}M_{Bt-1} - R_{Bt-1})/Q_{Bt}](1 + I_t/100)$$

(but in relation to the first relevant year, K_{Bt} shall be equal to zero);

where:

Q_{Bt-1} means the quantity sold in relevant year t-1;

M_{Bt-1} means the maximum average charge per unit sold in relevant year t-1;

R_{Bt-1} means the power procurement revenue in relevant year t-1;

Q_{Bt} means the quantity sold in relevant year t; and

I_t means the average specified rate.