



**POOL PRICE  
DECISION DOCUMENT  
MAY 1999**

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# 1. Introduction

In February 1999 OFFER published a consultation paper<sup>1</sup> summarising evidence of gaming within the Pool rules and suggesting possible changes to the rules designed to stop these abuses. This document sets out OFFER's proposed way forward in the light of the responses received to the consultation paper.

## 1.1 *Information Update*

Since publication of the consultation document the Pool Executive Committee (PEC) has made an adjustment to the scheduling software to reduce the incidence of price spikes, with effect from 18 March 1999. The PEC is continuing to evaluate a second initiative involving modifications to the price setting software which will prevent small volumes of highly priced electricity setting System Marginal Price (SMP).

In the period since the introduction of the change to the scheduling software to reduce the incidence of price spikes the number of spikes has fallen to 14, compared to 343 over the period 1 January to 17 March 1999. Most of the 14 spikes that did occur coincided with periods of peak demand.

## 1.2 *Views Invited*

In the February consultation paper OFFER welcomed the PEC's initiatives aimed at reducing unwarranted price spikes. However, OFFER remained concerned that the general problem is a set of Pool rules of such complexity that further gaming techniques can readily be devised. Because of this, in addition to the initiatives taken by the Pool, OFFER requested views on a number of other possible measures namely:

- a) the desirability of using simpler bidding structures by:
  - i) limiting generators to the use of a single incremental bid; and
  - ii) limiting generators to a single price bid by removing No-Load and Start-Up prices as well as allowing only one incremental bid

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<sup>1</sup> 'Pool Price – A Consultation by OFFER', OFFER, February 1999.

- b) the desirability of removing inflexibility markers
- c) the desirability of combining simple bids with the removal of inflexibility markers.

### **1.3 Respondents' Views**

Respondents' views are discussed in chapter 2.

Respondents welcomed OFFER's call for the Electricity Pool to operate as an orderly market in the last months of the Pool's existence. However, on points of detail a great diversity of opinion was expressed.

Most respondents welcomed PEC's initiatives and many felt that the change to the scheduling software alone or the intended change to the price setting software would be sufficient to limit the generators' ability to set price spikes. They considered it would be sensible to evaluate the effect of PEC's changes before implementing OFFER's suggestions. Others felt that PEC's initiatives would address only presently identified gaming strategies leaving generators able to devise alternatives – an opportunity which would be denied them were OFFER's suggestions implemented.

#### **1.3.1 Limiting Generators to the Use of a Single Incremental Bid**

A broad spectrum of respondents supported the use of a single incremental bid in that it would remove the potential for the Pool rules to be manipulated. Some believed, however, that it would reduce the ability of generators to reflect the characteristics of particular generating units in their bids and result in increased Pool prices.

#### **1.3.2 Limiting Generators to a Single Price Bid by Removing No-Load and Start-Up Prices as well as Allowing Only One Incremental Bid**

More concern was expressed over the introduction of a single bid than had been expressed over the use of a single incremental bid. Those opposed warned of the possibility of higher costs in the Pool if a single bid was pursued due in particular to the possible reduction in the availability of flexible plant. Those who supported a single bid suggested it would lead to more transparency and encourage liquidity in secondary markets.

### **1.3.3 The Desirability of Removing inflexibility Markers**

Many respondents found it difficult to comment constructively on the desirability of removing the use of inflexibility markers due to a lack of understanding of the likely effect.

### **1.3.4 The Desirability of Combining Simple Bids with the Removal of Inflexibility Markers**

Few respondents commented on this option and although some of the respondents believed the proposal would increase simplicity and transparency others said they found it difficult to properly evaluate the likely effect of such a proposal.

## **1.4 OFFER's Decision**

OFFER's decision in the light of responses is discussed more fully in Chapter 3.

### **- PEC Initiatives**

OFFER welcomes PEC's initiatives aimed at alleviating the problem of unjustifiable price spikes caused by gaming techniques adopted by some generators in the Pool. However, OFFER remains concerned that the initiatives alone leave the general problem fundamentally unchanged – that the Pool Rules are so complex that alternative manipulative strategies will be devised and introduced.

### **- Simpler Bidding Structure**

Should evidence emerge of further manipulation in the Pool OFFER believes further action should be taken immediately. This should include the introduction of a simpler bidding structure involving the use of a single incremental bid. However, given the uncertainties OFFER does not propose the removal of No-Load and Start-Up parameters from the bidding structure.

### **- Inflexibility Markers**

OFFER remains concerned about the ability of generators to use inflexibility markers to ensure pre-determined output volumes, rather than competing on price and availability alone. However, given uncertainty over the potential effect of removing inflexibility markers OFFER is asking PEC to assess the competitive impact of removing the use of inflexibility markers and to report by the end of May.

- ***Monitoring to Identify any Manipulation***

In order to aid transparency and assess the extent of any manipulation of Pool prices, OFFER is asking PEC to produce a monthly analysis of generators' behaviour in the Pool and the corresponding impact on prices. OFFER will make this report publicly available.

## **2. Results of the Consultation Exercise**

In total, there were 38 responses to OFFER's Pool Price consultation paper. All responses, apart from 4 from those who sought confidentiality, have been placed in the OFFER library. These responses are available for inspection during normal working hours.

The majority of the respondents agreed with OFFER's central concern: that the electricity market should be operated in an orderly manner, and that price manipulation should be stopped - if necessary by changing the Pool Rules. They felt that any changes made should ensure that no new techniques for gaming the Pool Rules would be devised.

### **2.1 *PEC's Initiatives***

Most respondents welcomed PEC's proposals, which are specifically aimed at reducing the number of unrepresentative price spikes, and felt that the change to the scheduler alone would be sufficient to limit the generators' ability to set SMP at levels which are not cost reflective.

The change to the SuperGOAL Scheduler has reduced the incidence of price spikes. In the period since the introduction of the SuperGOAL modification the number of SMP spikes has fallen to 14, most of which occurred in periods of peak demand, compared with 343 over the period 1 January to 17 March 1999. However, the disadvantage of the so called 'quick fix' to the Scheduler might be slightly increased average SMP.

The second Pool initiative relates to changes in the way the SMP algorithm operates. The changes proposed would prevent small incrementals of highly priced generation from influencing SMP. It is PEC's intention to 'fast track' this modification and have it in place in about four months. The effect of this should be to supersede the quick fix solution.

Some respondents took the view that it would be sensible to consider the effect of PEC's changes before pressing ahead with OFFER's suggestions. Some felt that PEC's initiatives would address the primary concern - price spikes - and feared that more radical solutions might have unforeseen disadvantages. Others felt, however, that PEC's initiatives would address only presently identified gaming strategies, leaving generators



able to devise alternatives - an opportunity which would be denied them were OFFER's suggestions implemented.

## **2.2 OFFER'S Suggestions**

### **2.2.1 Limiting Generators to the Use of a Single Incremental Bid**

Respondents across the spectrum supported the use of a single incremental bid and commented that this would remove the potential for the Pool Rules to be manipulated. They also suggested that implementation would not require changes to the Pool Rules and that some generators already use such a bid structure. Furthermore the use of a single incremental would be a modest step in the direction of RETA.

However, some believed that it would reduce generation flexibility by limiting the ability of generators to reflect the characteristics of particular generating units in their bids. As a result the costs associated with operating at the top end of a unit's capability might not be recoverable. This might lead to a reduction in the availability of this capacity with potential implications for LOLP payments.

No clear consensus emerged from the consultation process regarding the use of a single incremental within the current Pool bidding structure – although opposition, mainly from generators, to the proposal was muted. The weight of evidence has not persuaded OFFER against the use of a single incremental bidding structure and it may be appropriate to implement this simpler structure if the PEC initiatives fail to limit manipulation.

### **2.2.2 Limiting Generators to a Single Price Bid by Removing No-Load and Start-Up Prices as well as Allowing Only One Incremental Bid**

Opinions were disparate on the use of a single bid structure, although concern over the introduction of a single bid was more intense than that expressed over the use of a single incremental. Of those who welcomed this proposal it was suggested that a single bid would simplify bidding, bring bidding structures closer to the RETA proposals and help reduce the ability of generators to game the Pool Rules. They suggested a single bid would also lead to more transparency and encourage liquidity in secondary markets.

However, others warned of higher costs in the Pool if a single bid was pursued in isolation – in particular the reduction of availability of flexible plant. Concern was expressed that a single bid would lead to the removal of differentials between Table A and B periods, thus

increasing overnight prices, leading to a higher average SMP. Concern was also expressed about the potential for greater price volatility if some generators sought to limit risk associated with the lack of No-Load and Start-Up payments by increasing their bid prices, and by using plant parameters to ensure they run to recover costs, so distorting economic despatch.

Some respondents said that a simple bid was not compatible with the RETA reforms as simple bidding in a continuous market operating to real time is an entirely different proposition from simple bidding within a single day ahead schedule auction. Others felt that this was entirely consistent with RETA and that the opportunity should be taken to introduce it in advance of RETA.

No general consensus emerged on the introduction of a single bid structure. However, the gravity of the reservations expressed, in particular by the generators, was greater than that expressed over the use of a single incremental bidding structure. The weight of evidence, including the uncertainty surrounding the impact of a simple bid, has persuaded OFFER that the merit of introducing a single bid structure into the electricity Pool is outweighed by the potential disadvantages.

### ***2.2.3 The Desirability of Removing Inflexibility Markers***

For some respondents the use of inflexibility markers was a difficult technical concept and so they were unable to give useful comments. Of those who commented, some believed the removal of inflexibility markers was a positive step. However, the majority of generators argued that there were no good reasons for prohibiting the use of inflexibility markers. Some suggested that inflexibility markers were essential for some plant for technical reasons. Some said that it was almost impossible to distinguish between technical and commercial use of inflexibility markers; that most generators apply commercial considerations in using inflexibility markers; that such markers have been applied to guarantee both volume and the timing of that volume (for example when testing); and that the use of inflexibility markers was consistent with the concept of self-despatch under RETA.

In general, the lack of many respondents' understanding limited the balance of responses to the question of removing inflexibility markers. OFFER is uncertain as to the likely impact of removing inflexibility markers and believes further analysis is required.

#### **2.2.4 Combining Simple Bids with the Removal of Inflexibility Markers**

There were fewer comments on this 'combined' option than on the others. Of those who commented some believed that the proposal would increase simplicity and transparency, would move in the same direction as RETA, and would reduce gaming opportunities. On the other hand the Consumers' Committees' Chairmen's Group feared that the potential impact was not properly known, whilst NGC feared a loss of operational efficiency. Given the uncertainty surrounding the impact of a simple bid structure and the removal of inflexibility markers, OFFER does not believe it appropriate to pursue a policy of simple bidding in conjunction with no inflexibility markers.

#### **2.2.5 Other Suggestions**

Some respondents argued that the real problem remained the dominance of the generation market by National Power and PowerGen. Lack of divestment and the absence of new entry generation compounded the problem and, until the restricted consents policy was abandoned by the Government, there was no threat to the incumbents, who would continue to manipulate the Pool Rules. Others suggested that OFFER should modify the generators' licences rather than relying on the Pool which might be unwilling or unable to make changes quickly. NGC suggested that, as part of a package of changes, the frequency of bidding by participants into the Pool could be increased from the current single daily bid, to up to four bids each day.

### **3. OFFER's Decision**

#### **3.1 *PEC Initiatives***

OFFER welcomes PEC's initiatives aimed at alleviating the problem of unjustifiable price spikes caused by gaming techniques adopted by some generators in the Pool. However, OFFER is concerned that the initiatives alone might leave the general problem fundamentally unchanged – that the Pool Rules are so complex that alternative manipulative strategies will be devised and introduced.

#### **3.2 *Simpler Bidding Structures***

While OFFER is encouraged by PEC's decisive action, should its initiatives fail to address manipulation in the Pool, OFFER believes that the introduction of a simpler bidding structure is appropriate. This might include only three pricing parameters; a No-Load, a Start-Up and a single incremental. OFFER does not believe a single price bid structure is appropriate at this time.

#### **3.3 *Inflexibility Markers***

On the use of inflexibility markers, OFFER remains concerned about the ability of generators to use inflexibility markers to ensure pre-determined output volumes, rather than competing on price and availability alone.

The responses to the consultation process have not convinced OFFER of the desirability or otherwise of the use of inflexibility markers. OFFER therefore will ask PEC to investigate the use of inflexibility markers by generators when bidding into the electricity Pool. In particular OFFER would like PEC to focus on:

1. The application of an inflexibility marker on a generating set for all 48 periods of the trading day. The use of an inflexibility marker in this way guarantees operation, but prevents the generating set from setting SMP, or being constrained off. OFFER is concerned that the widespread use of inflexibility markers for 48 periods limits the proportion of plant capable of SMP setting. OFFER would like PEC to investigate the implications for plant currently bid continuously inflexible throughout the day, and the operation of the market, if such plant did not utilise inflexibility markers to ensure operation, but competed on price alone.

2. The 'cycling' of inflexibility markers by portfolio generators across their plant and the resulting impact on the market, in particular the relationship between ensuring output by plant bid inflexible and the possible indirect impact on SMP setting plant. OFFER would like PEC to investigate the use of inflexibility markers in this way and the impact on generators employing this strategy, and on the market, of the removal of inflexibility markers.
3. The redeclaration on the day of plant declared inflexible day ahead, making the plant flexible. OFFER would like PEC to investigate the corresponding impact on the system, and competition, of this tactic and the corresponding impact of removing inflexibility markers.
4. The suggestion that some generators have been compelled to use inflexibility markers to compete, as other generators' use of such markers has led to unpredictability in the operation of the market. OFFER would like PEC to investigate this suggestion.

Given OFFER's desire to maintain momentum, OFFER requests the report by the end of May.

### **3.4 *Monitoring to Identify any Manipulation***

OFFER is determined to ensure that Pool Members are operating "in a way which takes into account, and balances, the respective interests of actual and potential generators and suppliers of electricity and of consumers of electricity and providers of Ancillary Services."<sup>2</sup> To this end OFFER welcomes PEC's recognition, in its response to the consultation, that it has a "responsibility ... on behalf of Pool Members, to ensure that the Pool operates in accordance with the above statement, and that any deficiencies are corrected promptly." In order to help achieve this aim OFFER has asked PEC to provide it, on a monthly basis, with an analysis of behaviour in the Pool. OFFER expects PEC to liaise closely with Pool Members in the production of these reports and envisages that Pool Members will provide PEC with a monthly summary of their own bidding behaviour to be included in the reports.

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<sup>2</sup> Clause 4, The Pooling and Settlement Agreement.

OFFER will continue to monitor activity in the Pool and may from time to time wish to suggest to PEC areas to be investigated, for inclusion in such reports. Individual Pool Members may also wish to suggest items for inclusion, from time to time.

### **3.5 Conclusion**

OFFER is determined to ensure that the Pool operates as an orderly market in the run up to its replacement by the revised trading arrangements. Failure to do so will undermine confidence in and credibility of the electricity market. OFFER recognises the limited remaining life span of the Pool and is keen to ensure any action taken will be swift and effective.

Given the level of concern which emerged from the Pool Price consultation process surrounding the application of a single bid structure to limit the prospects for manipulation, and the action taken by PEC, OFFER will not seek the introduction of a single bid into the Pool. Instead OFFER will assess the success of PEC's initiatives, with the aid of a monthly report produced by PEC.

However, should Pool price manipulation again become a cause of serious concern, OFFER will move swiftly to seek the introduction of a simpler bidding structure via the removal of second and third incrementals.

Due to the lack of balanced consensus which resulted from the Pool Price consultation OFFER will also ask PEC to further investigate the removal of inflexibility markers. OFFER is asking PEC to respond by the end of May.