



Competition and Cost Recovery under the I-SEM Bidding Rules

A Report for Viridian

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1. Introduction

Viridian asked us to review the SEM Committee’s proposals to restrict bidding behaviour in the I-SEM capacity market,¹ taking account of the proposal for bidding controls in the I-SEM balancing market² and the related discussion of location issues.³ In particular, Viridian asked us to examine whether the proposed bidding controls promote competition. This report contains our response and proceeds as follows:

- Section 2 describes the equilibrium outcomes of a perfectly competitive market: prices are equal to marginal and average total costs.
- Section 3 explains that markets in practice are rarely if ever “perfectly competitive”.
- Section 4 explains that the SEM Committee’s proposals do not promote competition as a *process* because they instead attempt to impose the SEM Committee’s view of the market outcome.
- Section 5 describes a further distortion in competition under the SEM Committee’s proposals.
- Section 6 concludes.

The conclusions reached in section 6 can be summarised as follows:

- Prices that deviate from strict definitions of short run marginal costs can be consistent with competitive behaviour (see section 2).
- The SEM Committee has chosen to apply a market outcome based on a flawed interpretation of the theoretical ideal of perfect competition, which is not even applicable to sectors with long run, irreversible investments (see section 3).
- The theory of perfect competition provides no basis for the SEM Committee’s proposals (see section 4) because:
 - perfect competition cannot exist in markets where long-lived, irreversible investments are made with imperfect information;
 - in real world conditions, competition authorities promote competition by helping the competitive *process* to reveal competitive market outcomes, rather than by imposing a particular *outcome*; and
 - international precedents offer no support for the specific form of capacity market price controls currently proposed for the I-SEM, because controls in other markets offer greater flexibility, rely on *ex post* scrutiny, and do not deny total cost recovery.

¹ SEM-16-073, *Capacity Remuneration Mechanism: Parameters Consultation Paper*, 8 November 2016 (“CRM Parameters Consultation Paper”).

² SEM-16-059, *Offers in the I-SEM Balancing Market: Consultation Paper*, 7 October 2016 (“BM Offers Consultation Paper”).

³ SEM-16-081, *Capacity Remuneration Mechanism - Locational Issues: Decision Paper*, 08 December 2016 (“Locational Issues Decision”).

- In the I-SEM, capacity market choices will be distorted towards expensive new capacity, because the SEM Committee's proposals would prevent existing plant from including the capital cost of refurbishments in capacity market bids, except in the year when they are incurred, whilst allowing new entrants to obtain longer term contracts (see section 5):
 - offering longer-term contracts to some bidders, but not others, is a difference in treatment that lacks any objective justification, and distorts competition;
 - in some cases, existing plants that would be cheap to refurbish would close, and be replaced by more expensive new plants with long term contracts;
 - such outcomes would be inefficient. Moreover, any delay in the construction of the expensive new plant would put security of supply at risk.

Overall, therefore, we conclude that the SEM Committee's current proposals for the capacity auction would be detrimental to consumers' interests.

2. Perfectly Competitive Markets Set Prices Equal to Marginal Costs and Recover Average Total Costs

Several aspects of the proposals set out in the CRM Parameters Consultation Paper, particularly the proposed rules on offer prices, draw upon the theoretical ideal of a “perfectly competitive” market. Here, we explain the conditions required to make such a market possible, and to ensure that the prices emerging from such a market would cover both marginal costs and average costs (i.e. total costs). As we explain in section 3, these highly specialised conditions do not apply in practice.

The First Theorem of Welfare Economics provides the foundation for relying on competitive markets to allocate society’s resources. It says that, given certain abstract mathematical conditions, a market economy of self-interested agents will achieve an equilibrium outcome in which resources are allocated efficiently.⁴ The accompanying textbook theory of “perfect competition” requires a market to possess *among other properties*: a large number of price-taking buyers and sellers; and a set of production possibilities (available to all) in which output can always be increased by small increments, at an increasing incremental, or “marginal”, cost.

The prices in such “perfectly competitive” markets obey at least two conditions simultaneously *in equilibrium*.

- (1) First, profit-maximising firms set prices equal to the marginal cost of production. If prices differed from marginal costs, firms could earn additional profit by raising or lowering output.
- (2) Second, prices equal Average Total Cost (ATC). If prices are above ATC, market conditions would encourage entry. If prices were below ATC, market participants would exit the market.

The model of perfect competition abstracts from chronological time, so these observations on the *equilibrium* outcome are often interpreted to mean that (1) prices in individual or short term markets should equal short run marginal cost, whilst (2) average prices over the long run should cover Average Total Cost (i.e. allow total cost recovery).

There is much discussion in the economic literature about how, or even whether, these two conditions can be met simultaneously in real-world markets. However, in practice, this model is a poor guide to the behaviour of competitive markets, as we explain in the next section.

⁴ See for instance, the discussion in: Arrow, K.J., "An Extension of the Basic Theorems of Classical Welfare Economics," Proceedings of the Second Berkeley Symposium, University of California Press (Berkeley), 1951.

3. Perfect Competition Is a Poor Guide to Competition in Real World Conditions

In the real world, competition is rarely, if ever, “perfect”. The conditions for perfect competition rarely exist, and attempts to promote competition must therefore be based on different models of competition that is “less than perfect”, in which different pricing rules apply. As the eminent Professor Richard Whish puts it in his seminal text book on competition law:

“The first point which must be made about the theory of perfect competition is that it is only a theory; the conditions necessary for perfect competition are extremely unlikely to be observed in practice. Perfect competition requires that on any particular market there is a very large number of buyers and sellers, all producing identical (‘or homogenous’) products; consumers have perfect information about market conditions; resources can flow freely from one area of economic activity to another: there are no ‘barriers to entry’ which might prevent the emergence of new competition, and there are no ‘barriers to exit’ which might hinder firms wishing to leave the industry. Of course a market structure satisfying all these conditions is unlikely, if not impossible: we are simply at this stage considering theory, and the theory is based upon a number of assumptions.”⁵

In the real world, competition often takes place in markets that exhibit only some of the characteristics required for perfect competition. Many markets (especially those that attract the attention of governments and regulators) exhibit economies of scale, lumpy investments, irreversible and long-lived investments, imperfect information, a paucity of buyers (or even a single buyer), etc. These conditions prevent competition from being “perfect” (even if there are no restrictions on entry that would hinder competition in any form). In these markets, it is not always possible to say whether prices will or should equal marginal cost, because that outcome may not be sustainable.

For example, where there are economies of scale, there may still be more than one supplier in the market, and others may be free to enter. However, setting prices equal to marginal costs would bankrupt them all and bankruptcy is a cost to be minimised like any other. In these markets, equilibrium outcomes rely on prices rising above marginal costs some of the time because, in the long run, prices must cover Average Total Costs (i.e. price must allow total cost recovery). Otherwise, no supplier would ever enter the market.

In markets with irreversible, long-lived investments and unpredictable demand, periods of over- and under-supply are inevitable. However, the precepts of “perfect competition” provide little help in determining the optimal pattern of pricing in such conditions. Forms of pricing in short term markets that depart from the principle of setting prices equal to short run marginal costs may still be consistent with acceptable, competitive behaviour.

For instance, depending on the circumstances in any given market, competition authorities may accept the following pricing as competitive:

⁵ Whish, R., *Competition Law*, Oxford University Press, sixth edition, 2008, page 7. Later editions adopt slightly different formulations, referring e.g. to the need for an “infinite number of buyers and sellers”.

- (1) any prices, if entry is unrestricted, because competition is a *process*, not a defined outcome;⁶
- (2) any prices between a floor of SRMC (or average variable cost) and a ceiling of average total cost, or even the marginal cost of the alternative source of supply, because sometimes the supply function is stepped; or
- (3) any prices that do not produce excessive rates of profit on investment over the long term, either actual profits earned or the profits of new entry, because ultimately profits should encourage entry and depress prices – see (1) above.⁷

Imposing tight controls on behaviour that rule out these forms of pricing therefore extends regulation beyond the requirements of promoting competition and requires forms of competition that are either unsustainable or less efficient (more costly) than necessary.

Perfect competition is therefore a poor model for the design and application of rules designed to pursue consumers' interests by promoting competition or (more generally) by mitigating market power. Nothing in the theory of competition requires market participants to set prices based purely on marginal costs, especially marginal costs calculated over less than an entire investment cycle. In practice, rules on predation and the abuse of dominance applied by the European Commission under competition law refer to average variable cost and average total cost, respectively, as possible lower and upper *boundaries* on pricing – but usually as one component among many of a detailed investigation into the nature of competition in the market concerned.⁸

⁶ There may be a general presumption that prices are competitive if there are no barriers to competition. The Baumol-Willig theory of contestable markets is just one attempt to model such a market, in these cases in conditions of natural monopoly.

⁷ In 2012, Ofgem, the British energy regulator, issued guidance on the pricing of energy sales under the Transmission Constraint Licence Condition (TCLC), which prohibits certain forms of behaviour by generators in relation to transmission constraints. This guidance contains the following footnote, which is instructive about the regulator's attitude to pricing in conditions of shortage (as long as the shortage is not brought about by "output manipulation", i.e. strategic plant withdrawal or bidding): "Note that the TCLC does not prohibit excessively high offers during import constraints in the absence of output manipulation. The rationale for this is that (in the absence of output manipulation) such price spikes may be a true reflection of scarcity of generation, and hence a reasonable investment incentive." Ofgem (2012), *Transmission Constraint Licence Condition Guidance*, 29 October 2012, footnote 9, page 7. A "price spike" occurs when prices rise for short periods above the normal levels dictated by the cost of supply.

⁸ Commission Communication 2009: *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*.

4. The SEM Committee's Proposed Price Controls Will Not Promote Competition

4.1. SEM Committee Proposals

The SEM Committee is proposing to introduce controls on market participants' bidding behaviour in the energy and capacity markets to mitigate market power. In both markets, the SEM Committee relies on forward-looking, marginal cost concepts to provide the upper bound on the price for those services. Specifically, the SEM Committee has proposed not only offer caps but also price caps for plant which are "constrained on" in the energy and capacity markets, set at the level of their:

- Short Run Marginal Cost (SRMC) in the energy market;⁹ and
- Net Going Forward Costs (NGFC) in the capacity market.¹⁰

Both measures exclude any provision for the recovery of sunk costs, such as the cost of recent refurbishment or other investment. The SEM Committee has no grounds for imposing widespread price caps based on these cost measures for at least three reasons, as discussed in sections 4.2, 4.3 and 4.4 below, namely:

- the theory of perfect competition provides no basis for the SEM Committee's proposals;
- in real world conditions, competition authorities promote competition by making the competitive *process* reveal competitive market outcomes, rather than by imposing a particular *outcome*; and
- international precedents offer no support for the specific form of capacity market price controls currently proposed for the I-SEM, because controls in other markets offer greater flexibility, rely on *ex post* scrutiny, and do not deny total cost recovery.

4.2. Objections to the Theory Underlying SEM Committee Proposals

The SEM Committee's requirement that market participants price all services, including capacity, at marginal cost applies an overly restrictive definition of competitive behaviour. In practice, as discussed in section 3, above:

- perfect competition, in which prices are always equal to marginal cost for each firm, is a theoretical abstract model of competition that does not apply in practice to markets for electricity (or capacity);

⁹ SEM-16-059, BM Offers Consultation Paper.

¹⁰ SEM-16-073, CRM Parameters Consultation Paper. In principle, constrained-on generators can raise their offer prices, without inviting regulatory scrutiny, up to the Existing Capacity Price Cap (ECPC), which the SEM Committee is currently proposing to set at 0.5 x Net CONE. However, generators that are constrained on are likely to have relatively high costs (or else they would not be constrained on), in part due to their need to incur costs of maintenance and refurbishment to remain available. In the SEM Committee's own words, the ECPC lies "well below the expected long run marginal cost of capacity" (SEM-16-081, para 5.4.14) and is therefore unlikely to be high enough to cover the costs of constrained-on generation. However, the proposed auction rules allow generators with costs above the ECPC to apply for permission to submit a higher offer price, up to the level of their NGFC (SEM-16-073, paragraph 6.1.1). We expect constrained-on generators to have to take advantage of this provision. Their offer prices – and the prices they receive for their capacity – will therefore be limited by their NGFC, rather than the ECPC.

- the SEM Committee is trying to impose a theoretical market outcome that applies only in *equilibrium* conditions, assuming that all inputs into production have been adjusted to the optimal level; however, in *real world* conditions some inputs (such as long-lived, irreversible investments) are fixed at levels determined by history, so competitive market prices differ from those in a theoretical equilibrium; and
- even when imposing this equilibrium market outcome, the SEM Committee adopts a flawed version of that model which places sole emphasis on marginal cost pricing to promote efficiency of production and consumption in the short run, whilst giving no thought to the recovery of fixed costs (i.e. without ensuring that prices reflect Average Total Cost). As a result, the SEM Committee's proposal will discourage efficient entry and investment in the long run.

The theory of competitive markets therefore provides no support for the SEM Committee's position. In equilibrium, entrants in competitive markets would recover their sunk costs on average. In a world of imperfect information, some entrants may not recover their full sunk costs whilst others recover more than their sunk costs. However, competitive markets do not require market participants to forego *any prospect* of recovering fixed/sunk costs. Indeed, any such outcome would be *uncompetitive* because rational competing agents would never enter markets in which sunk costs could not be recovered. As a result, it would threaten economic efficiency and security of supply, both of which are important components of the regulatory authorities' statutory duties.

4.3. Practicalities of Competition Policy

The SEM Committee has statutory duties to promote competition. Competition authorities and regulators in Europe generally consider competition to be a process, rather than an outcome. For example, previous Competition Commissioners of the European Commission have similarly defined the purpose of competition policy as protecting the process of competition:

“Our aim is simple: To protect competition in the market as a means of enhancing consumer welfare and ensuring an efficient allocation of resources.”¹¹

The UK Competition Commission has described competition as:

“a process of rivalry between firms seeking to win customers' business over time by offering them a better deal. Rivalry creates incentives for firms to cut price, increase output, improve quality, enhance efficiency, or introduce new and better products because it provides the opportunity for successful firms to take business away from competitors, and poses the threat that firms will lose business to others if they do not compete successfully.”¹²

Neither of these statements prescribes a particular form or level of prices. In contrast, the SEM Committee's proposal to fix capacity (and energy) prices at its estimate of marginal costs is a flawed attempt to impose the equilibrium outcome of perfect competition (1) on a

¹¹ SPEECH/05/512 of 15 September 2005 by Neelie Kroes, Competition Commissioner.

¹² Competition Commission Merger Reference Guidelines, September 2010, para 1.20.

market that does not meet the conditions for perfect competition, (2) without knowing whether the market is in equilibrium and (3) based on imperfect information about costs. This approach overrides competition to achieve a pre-determined outcome. Competition authorities take the opposite approach: instead of centrally planning and imposing the outcome that they believe a competitive market would deliver, they rely on the competitive process to reveal what the competitive outcome actually is. Under this approach, interventions in competitive markets are intended either to facilitate the competitive process, or to punish demonstrable breaches of competition law (and to discourage repetitions).

4.4. The Proper Interpretation of Precedents

The SEM Committee wrongly claims support from regulatory precedent for its suite of market power controls.¹³ In practice, the regimes on which the SEM Committee relies differ from its own proposals in ways that allow generators the flexibility to earn a contribution toward their fixed costs by other means – means that are denied in the I-SEM proposals.

In Great Britain, bidding controls in the energy market for constrained generators are much looser: For instance, generators may not bid an uneconomic pattern of dispatch in order to exacerbate a transmission constraint.¹⁴ However, market rules do not prevent constrained-on generators from obtaining infra-marginal rent when selling energy, by bidding above their SRMC. The capacity market rules require bidders wishing to bid above the price-taker threshold of £25/kW to state that they need a price in excess of this level and to submit accompanying evidence. Neither National Grid nor Ofgem scrutinises the evidence on generator's costs until and unless Ofgem launches an investigation *after* the auction has taken place. Moreover, the British trading arrangements do not impose any restrictions on energy market offer prices that are comparable with the *ex ante* controls proposed for the I-SEM Balancing Mechanism; again, any scrutiny is applied to observed prices *ex post*, in case-by-case investigations. Appraising prices and costs *ex post* reduces the scope for error and the risk of imposing price caps below generators' marginal ("forward-looking") costs.

In the US, capacity markets are divided into zones, which provide a different price signal for capacity in different locations. Capacity in constrained areas is automatically rewarded with a higher price. In the I-SEM, the capacity market sets a single, system-wide price. If generators in constrained areas have costs above the market price but are required for system stability, they will be paid-as-bid (at their NGFC) for a Reliability Option. In US markets, generators in constrained areas are paid the local clearing price for capacity contracts, which offers the prospect of infra-marginal rents for constrained-on capacity in the capacity market.

International precedents therefore offer no support for the specific form of capacity market price controls currently proposed for the I-SEM. Other regimes offer more flexibility in bidding – either in the capacity market or in related energy markets – and rely on *ex post* scrutiny instead of trying to pinpoint bids and market prices in all markets *ex ante*. As a result, no other regimes are as prone to denying cost recovery as the current I-SEM proposals.

¹³ For example, see SEM-16-073, CRM Parameters Consultation Paper, para 6.2.5.

¹⁴ See description in NERA (2016), Consultation Paper SEM-16-059: Offers in the I-SEM Balancing Market, A Report for Viridian, 17 November 2016, page 33.

5. The SEM Committee Proposals for the Capacity Market Will Distort Competition and Lead to Inefficient Outcomes

The SEM Committee's proposals for the CRM offer all plants the opportunity to access a one-year Reliability Option. Plants undertaking new investment above a predetermined threshold (the New Capacity Investment Rate Threshold, or NCIRT) will also be eligible for longer term contracts of up to 10 years.¹⁵ As we understand the proposals, the SEM Committee will set this threshold high enough to ensure that only new-build capacity involving a substantial financial commitment would be eligible for a 10-year contract.

Offering longer-term contracts to some bidders, but not others, is a difference in treatment that lacks any objective justification, and distorts competition. Indeed, if longer term contracts allow new entrants to achieve a lower cost of capital than existing plant, the market will be distorted in favour of inefficient new entry.

5.1. Effects of Offering Longer Term Contracts to Some Bidders

The possibility of offering longer term contracts to only some bidders increases the distortion imposed by the SEM Committee's proposed bidding controls. In particular, the proposed arrangements insert a wedge between the economic signals to retain and refurbish existing plant on the one hand, and to commission new plant on the other, as explained here:

- (1) *When the capacity auction commissions new capacity*, the cost of new plant is likely to set the capacity price. The capacity price will rise in those years to the Net CONE of the commissioned plants. Because new plants will have access to 10-year contracts, the capacity price will contain the capital costs of new entrants amortised over (at least) ten years.
- (2) *When the capacity auction does not commission new capacity*, bids from existing capacity will set capacity prices. The SEM Committee's proposed form of bidding controls in the capacity auction will prevent existing capacity from including sunk costs in its bids. The capacity price will then equal the Net Going Forward Costs of the marginal existing plant, which will exclude any provision for the capital cost of, and return on, investments undertaken in the past.

When the situation in bullet (1) arises, the capacity price – and the economic signal to invest in new capacity – will be defined by Net CONE, most likely with amortisation of capital costs over ten years, because new plants can obtain a 10-year contract. However, existing plants can only obtain 1-year contracts, so the signal to maintain or refurbish existing capacity will only be given by the 10-year Net CONE in those years when the capacity auction commissions new capacity. In all other years, when bullet (2) applies, the economic signal to maintain or refurbish existing plant will be lower. Thus, whereas new capacity will be offered prices of Net CONE spread over ten years, existing capacity will be offered less

¹⁵ SEM-16-073, CRM Parameters Consultation Paper, para 5.2.1.

incentive for investment: a combination of Net CONE in some years, but only Net Going Forward Costs in other years.¹⁶

5.2. Impact on Incentives and Competition

Giving less incentive to maintain and refurbish existing capacity than to build new capacity distorts competition. It also raises costs for consumers. If the cost of maintaining or refurbishing existing capacity fails to reach the NCIRT, that capacity will not obtain a long term contract, and it will have no other means of recovering its investment costs.

Existing plant will have little or no opportunity to earn any revenue above its NGFC, if it is the marginal plant setting the market price for capacity, or if it is constrained on and is paid its own bid price.

- Plant that is about to embark on a refurbishment might try to recover all the “going forward” (i.e. future) costs of the refurbishment in a single auction year, when the costs are incurred. However, that policy would make its bid so high as to be unlikely to be accepted, when compared with new capacity that can spread its costs over ten years.
- In any year *after* such investments have been made, existing capacity would be required by the SEM Committee’s proposed capacity auction rules to bid a price that only includes its NGFC and that excludes the (by then) sunk costs of refurbishment.

In some cases, therefore, existing plants that would be cheap to refurbish would close, and be replaced by more expensive new plants with long term contracts. This problem is particularly acute for Must Run Reliability Plants (“constrained-on generators”). They would find it difficult to finance maintenance and refurbishment, since they would be paid their bid prices for both capacity and energy, but would not be able to recover the cost of maintenance or refurbishment in either bid price, because of the problems listed in section 5.1 above.

Such outcomes would be inefficient. Moreover, any delay in the construction of the expensive new plant would put security of supply at risk. These effects of the SEM Committee’s proposals are detrimental to consumers’ interests.

¹⁶ The situation in bullet (2) represents the permanent outcome for existing capacity that is “constrained on” as Must Run Reliability plant. Capacity operating in this segment of the capacity market is always treated as if it were the marginal plant and the price it receives is always its own offer price. This offer price is likely to lie above the Existing Capacity Price Cap and hence to be tied to the plant’s Net Going Forward Costs. The proposed rules therefore deny such plant any opportunity to recover sunk costs, even if the cost of new capacity is setting prices for capacity in general. This proposal would therefore eliminate any incentive to invest in maintaining and refurbishing Must Run Reliability Plant – even though that is by definition the most valuable capacity on the system.

6. Conclusions

Drawing upon all of the previous sections, we conclude the following.

In the abstract model of perfect competition, equilibrium prices are simultaneously equal to marginal costs and average costs of production. In practice, few if any markets are perfectly competitive and many markets take time to equilibrate. Therefore:

- prices that deviate from strict definitions of short run marginal costs can be consistent with competitive behaviour (see section 2).

The SEM Committee has a duty to promote competition. Whilst most competition authorities and regulators consider competition to be a *process*, the SEM Committee's proposals for market power mitigation in the energy and capacity markets seek instead to impose the SEM Committee's view of the competitive market *outcome*, at least for constrained-on plant. The information used to define this outcome will always be imperfect, which will distort the result, but in any case:

- the SEM Committee has chosen to apply a market outcome based on a flawed interpretation of the theoretical ideal of perfect competition, which is not even applicable to sectors with long run, irreversible investments (see section 3).

Relying on the short-run outcomes of stylised perfectly competitive markets, the SEM Committee proposes that market participants should bid no higher than their marginal costs of production in the capacity market – as represented by the SEM Committee's own definition of that cost, NGFC. Plants that are constrained on will be subject to the same constraint in both capacity and energy markets and will be paid what they bid. The SEM Committee's rules therefore explicitly forbid certain existing plants to recover any sunk costs of investment. However, no regime that regulates continual investment can disallow the recovery of sunk costs on principle, since the cost of any investment allowed at time T ("today") and carried out at time T+1 ("tomorrow") would have to be disallowed as a new sunk cost from time T+2 ("the day after tomorrow"). Treating the same costs inconsistently at different times undermines the credibility of the regime and destroys incentives for long term investment. Such rules do not represent pricing behaviour in a competitive market either, and can never produce an efficient outcome.

Although the SEM Committee tries to justify its proposals with reference to rules in other jurisdictions, in practice the regulators of other markets do not impose such severe restrictions on the recovery of capital costs across *all* the markets in which market participants operate. (In the I-SEM, some generators operate largely, or even solely, in constrained markets, where the proposed restrictions are tightest. These generators provide a useful test case, since the proposed rules must maintain incentives to invest and generate even in these conditions.)

Hence:

- the theory of perfect competition provides no basis for the SEM Committee's proposals because perfect competition cannot exist in markets where long-lived, irreversible investments are made with imperfect information;

- in real world conditions, competition authorities promote competition by helping the competitive *process* to reveal competitive market outcomes, rather than by imposing a particular *outcome*; and
- international precedents offer no support for the specific form of capacity market price controls currently proposed for the I-SEM, because other markets offer greater flexibility, rely on *ex post* scrutiny, and do not deny total cost recovery (see section 4).

In the I-SEM, capacity market choices will be distorted towards expensive new capacity, because the SEM Committee's proposals would prevent existing plant from including the capital cost of refurbishments in capacity market bids, except in the year when they are incurred, whilst allowing new entrants to obtain longer term contracts. The reasons for making this distinction within an industry of continual, long-lived investment are weak. The distinction itself is therefore a difference in treatment that lacks any objective justification. In some cases, low cost existing capacity will be replaced by more expensive new capacity, just because it is able to obtain a long term contract. Such choices would be inefficient and the possibility of delays in construction would put security of supply at risk. In summary:

- offering longer-term contracts to some bidders, but not others, is a difference in treatment that lacks any objective justification, and distorts competition;
- in some cases, existing plants that would be cheap to refurbish would close, and be replaced by more expensive new plants with long term contracts; and
- such outcomes would be inefficient. Moreover, any delay in the construction of the expensive new plant would put security of supply at risk (see section 5).

Overall, therefore, we conclude that the SEM Committee's current proposals for the capacity auction would be detrimental to consumers' interests.

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