

**FEDERAL TRADE COMMISSION**

**Comments Regarding Retail Electricity  
Competition**

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**Docket No. V010003**

**COMMENTS OF  
THE MARYLAND OFFICE OF PEOPLE'S COUNSEL**

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**On Behalf Of The  
Maryland Office Of People's Counsel**

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The Maryland Office of People's Counsel ("People's Counsel"; "OPC") appreciates the opportunity to respond to the Federal Trade Commission's request for comments on retail electricity competition plans. On behalf of Maryland's residential consumers, OPC actively participated in a six-year legislative and regulatory process that culminated in the opening of Maryland's retail electricity market to competition on July 1, 2000. Since that time, People's Counsel has continued to participate in the on-going effort to refine the rules and procedures that govern retail competition in Maryland, while also actively participating in the process of re-design and refinement of market rules for the Pennsylvania-New Jersey-Maryland ("PJM") regional wholesale generation market. In addition, OPC has been closely monitoring developments in other regional markets around the country.

As noted in the Commission's Notice Requesting Comments, competition in retail electricity markets promises "lower prices, better service, and greater innovation." Sadly, this promise has gone largely unfulfilled in most of the states that have implemented customer choice of retail services. Even after more than two years of retail competition in some states, robust and vibrant markets have not materialized. For the most part, these first years have been marked by negligible levels of customer migration to competitive suppliers, and by either lack of market entry, or entry and then subsequent abandonment, by retail suppliers.

While the Commission's investigation of different regulatory approaches to retail restructuring is commendable, it is ultimately misguided. The plain fact is that the performance of retail electricity markets has been almost universally dismal, despite the wide variety of regulatory approaches adopted by the various states that have embarked on the restructuring process. In other words, nothing seems to work.

Nothing works at the retail level, because the problem ultimately lies not in retail markets, but in the design of wholesale generation markets. Flawed market designs have allowed wholesale power producers to exercise market power, resulting in excessive, and excessively volatile, wholesale prices. These excessive wholesale prices have, in turn, raised retail suppliers' cost of business to unprofitable levels, driving them out of the retail business. The result, as we have seen to-date, is stagnant retail markets.

It is therefore essential that the Commission refocus its investigation on the design of wholesale generation markets, and in particular those design flaws that allow generators to exercise market power and drive prices above just and reasonable

levels. Retail markets will continue to falter as long as the wholesale markets are not workably competitive as originally intended.<sup>1</sup>

## **Market Power in Wholesale Generation Markets**

As events in California over the last year dramatically indicate, retail competition has foundered on the rocks of market power in wholesale generation markets. Dominant generation owners with market power have exploited flawed wholesale-market business rules and procedures to drive prices to levels that far exceed just and reasonable levels.<sup>2</sup> With wholesale prices at these excessive levels, retail suppliers have been unable to profit from the provision of retail services.

According to the most recent study of generator bidding practices by the California Independent System Operator, California wholesale prices exceeded workably competitive levels on average by 30% over the 12-month period ending February, 2001.<sup>3</sup> The California ISO further estimates that these excessive prices

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<sup>1</sup> Vertical market power – control of bottleneck transmission facilities by utility owners of generation – may also impede development of retail markets. We have restricted our comments to the issue of horizontal market power in wholesale generation markets, since utilities in PJM, as in California and the rest of the Northeast, have placed their transmission facilities under the operational control of an independent system operator.

<sup>2</sup> The exercise of market power typically takes the form of either physical or economic withholding of generating capacity from the wholesale market. Plant owners can physically withhold capacity by taking a plant out of service. Economic withholding involves bidding plant output at a price significantly above marginal operating cost, so that the plant will not appear to the ISO to be economic to operate. In either case, the object is to increase the market-clearing price above competitive levels by forcing the operation of more-expensive generating capacity. Although a generation owner foregoes revenue from the withheld capacity, the revenues received from the rest of his generation portfolio increases as a result of the increase in market price. Withholding is profitable when the additional revenues from operating capacity exceeds foregone revenues from withheld capacity.

<sup>3</sup> *Comments of the California Independent System Operator Corporation on Staff's Recommendation on Prospective Market Monitoring and Mitigation for the California Wholesale Electric Power Market*, FERC Docket No. EL00-95-012, March 22, 2001.

resulted in overcharges to consumers of almost \$1.2 billion during the 7-month period from May to November of 2000.<sup>4</sup>

Importantly, the California ISO's analysis shows conclusively that these high prices result not from rational scarcity pricing or from recent increases in fuel, emissions, or other input costs, but from abusive bidding strategies by dominant generation owners. The Federal Energy Regulatory Commission has also found evidence of abuses of market power, wherein certain generators withheld capacity from the wholesale market in order to increase prices above competitive levels.<sup>5</sup>

It is virtually impossible for retail suppliers to price their products competitively when their wholesale costs reach such astronomical levels.<sup>6</sup> These suppliers are pricing against a utility generation rate, or "shopping credit", that typically reflects an expectation of market price under workably competitive conditions. If market prices are in fact significantly higher than reflected in the shopping credit as a result of market power, then retail suppliers cannot offer discounts to the shopping credit without suffering losses.<sup>7</sup> It is therefore not surprising that retail suppliers have abandoned the California market, and that retail choice has stagnated at negligible levels. Indeed, in response to the recent crisis, retail choice was temporarily suspended under Assembly Bill 1x, as enacted on February 1, 2001.

The crisis in the California wholesale market is not the exception, just an exceptional example of the problems that are plaguing regional wholesale markets elsewhere in the country. Over the last year, the ISOs for the PJM, New York, and New England wholesale markets have identified and taken steps to restrain attempts at capacity withholding and price gouging in a number of the wholesale product markets administered by these ISOs. These mitigation measures include:

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<sup>4</sup> *Id.*

<sup>5</sup> *AES Southland, Inc.*, 94 FERC ¶ 61,248 (2001).

<sup>6</sup> Unfortunately, retail suppliers would not find much relief from these high market prices by purchasing wholesale supplies through forward contracts, as forward prices will likely reflect expectations of excessive prices in the spot market.

<sup>7</sup> However, as discussed below, it is neither appropriate, efficient, nor equitable to increase the shopping credit to provide opportunities for retail suppliers to price competitively when wholesale markets are not workably competitive.

- Elimination of the New England ISO-administered installed-capacity market, after generators manipulated bids to increase the market-clearing price from \$0/MW in the latter half of 1999 to \$10,000/MW in January of 2000;<sup>8</sup>
- Implementation of an automated bid-mitigation mechanism for the New York energy market, based on evidence that existing administrative procedures failed to restrain abusive practices in a timely fashion;<sup>9</sup>
- Imposition of a cap on bids for spinning and non-spinning reserves in the New York ancillary-services markets following successful attempts to increase prices by withholding reserve capacity;<sup>10</sup>
- Proposal to FERC by Consolidated Edison to mitigate energy bids by generators located in New York City whenever transmission into the City is fully loaded, based on evidence of economic withholding and price gouging;<sup>11</sup>
- Imposition of a cap on bids in the PJM energy market for generators with minimum run-times following successful attempts to circumvent the existing \$1,000/MWh bid cap by strategic pricing of minimum run-time bids;<sup>12</sup> and
- Proposal to PJM member committees by PJM ISO to revise various market rules applicable to the PJM installed-capacity market after several months of excessive clearing prices.<sup>13</sup>

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<sup>8</sup> ISO New England Inc., filing in FERC Docket No. EL00-62, May 8, 2000.

<sup>9</sup> *Initial Comments of the New York Independent System Operator, Inc.*, FERC Docket No. ER00-3591-000, February 8, 2001.

<sup>10</sup> *Request of New York Independent System Operator, Inc. for Suspension of Market-Based Pricing for 10-Minute Reserves and to Shorten Notice Period*, March 27, 2000.

<sup>11</sup> *Request of Consolidated Edison Company of New York, Inc. to Revise Localized Market Power Mitigation Measures*, FERC Docket No. ER98-3169, March 1, 2001. Bids in the day-ahead market by generators that were divested by Consolidated Edison are already subject to mitigation when transmission constraints isolate the in-City market from the rest of the New York State wholesale market. Consolidated Edison proposed expanding mitigation to bids in the real-time market by divested generators, and to all bids by other in-City generators.

<sup>12</sup> PJM Interconnection, L.L.C., filing pursuant to Sections 205 and 206 of the Federal Power Act, May 8, 2000.

There is little indication that these problems will abate in the coming year. Market fundamentals - in particular, the thin margin of capacity in excess of demand and the inelasticity of demand – are not expected to improve dramatically in the New England, New York, or PJM markets.<sup>14</sup> In New York City, the New York ISO is facing a capacity shortage in the next two years, even after accounting for expected new capacity. In PJM, operating reserves (after accounting for forced outages) of generation located within the pool are expected to be less than 1% above normal load this coming summer, requiring a California-like reliance on supply from outside the region on hot, high-load days. Indeed, conditions this coming summer could be significantly worse than last year's, since opportunities for price gouging were likely dampened by last summer's abnormally cool weather

In the longer term, opportunities for price gouging could be significantly reduced if sufficient new capacity is sited and built. All three of the Northeastern markets appear to have more than enough construction projects in the "queue" to restore the supply-demand balance to competitive levels, even considering that many of these projects will never get off the drawing board because of project economics or siting and permitting obstacles. However, this outlook could change dramatically if market conditions develop in ways that degrade project viability and profitability. For example, a recent study by the New England ISO raises the concern that there will be insufficient pipeline capacity to supply the amount of

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<sup>13</sup> See, for example, agenda items for the March 14, 2001 meeting of the PJM Reliability Committee. Since the beginning of this year, the daily capacity market has consistently cleared at a price equal to the rate charged to load-serving entities that are capacity deficient. (This rate effectively caps bids in the capacity market, as a load-serving entity can simply pay the deficiency rate if not offered less expensive capacity.) Since the pool as a whole is not deficient, prices would be expected to clear at levels below the deficiency rate, unless capacity were being hoarded.

<sup>14</sup> In essence, the thinner the margin and the less elastic the demand, the greater the opportunity for generation to exercise market power. In the extreme situation where (inelastic) demand exceeds supply, all generators have market power in the sense that the ISO must take their output regardless of the price bid for that output.

new generating capacity required in New England to keep pace with load growth.<sup>15</sup>

Although wholesale prices in the Northeast have not reached California's levels, the effect on retail markets has been no less dramatic. In PJM, for example, retail suppliers in Pennsylvania dropped service to customers following the run-up in prices in the summer of 1999.<sup>16</sup> As a result, customer migration has stagnated in most utility service territories in Pennsylvania, with the percentage of customers served by retail suppliers at the end of 2000 the same as or lower than at the beginning of 2000.

## **Mitigating Wholesale Market Power in PJM**

People's Counsel has worked closely with other major stakeholders in Maryland for more than two years to craft an approach to retail restructuring that both promotes development of competitive retail markets and protects ratepayer interests during the transition to fully competitive markets. Despite these efforts, retail competition will not materialize to any significant degree in Maryland (or other PJM states) if problems with market power in the PJM wholesale market persist. It is therefore essential that this Commission consider and promote approaches appropriate to the PJM market for mitigating market power.<sup>17</sup>

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<sup>15</sup> Levitan & Associates, *Steady-State Analysis of New England's Interstate Pipeline Delivery Capability, 2001-2005*, ISO New England, Inc., January, 2001.

<sup>16</sup> According to PJM's *State of the Market Report, 1999*, market prices in the summer of 1999 exceeded the previous summer's prices by 81%. Average prices during the 12-month period April, 1999 to March, 2000 exceeded average prices for the previous 12-month period by 34%. Even after adjusting for increases in fuel prices during that period and for the abnormally hot temperatures during the summer of 1999, average 1999-2000 prices were still 5% higher than 1998-1999 prices.

<sup>17</sup> Although the following discussion is limited to the issue of mitigating market power in PJM, the comments are generally applicable to the New York and New England regional markets. Also, the comments that follow focus on the PJM energy market; the installed-capacity market is also subject market power, however the effect on the total wholesale price of power from excessive prices in the installed-capacity market is negligible relative to the likely effect of excessive energy prices. Moreover, the PJM ISO is already engaged in several efforts at revising market rules to mitigate market power in the installed-capacity market.

PJM's market structure is designed to promote efficient and competitive bidding by market participants under workably competitive conditions. The energy market is designed around a single-price auction, whereby all bidders selected for dispatch are paid the same market-clearing price (as determined by the marginal bid.)<sup>18</sup> Under single-price auctions, bidders have an incentive to bid their marginal operating costs and "take" the market-clearing price for two reasons. First, bidding at cost ensures that a bidder will only be selected for dispatch when the clearing price meets or exceeds that bidder's cost, and therefore ensures that a bidder will not be required to operate at a loss. Second, infra-marginal bidders do not need to bid above their marginal operating costs in order to recover their fixed costs and required return, since such costs are recovered in part through the difference between the clearing price paid to generators and those generators' marginal costs (with the remainder recovered through the installed-capacity market.)<sup>19</sup> By encouraging bidding at marginal cost, PJM's single-price mechanism provides for an efficient bid-based dispatch of generating units.

Despite these incentives to bid at marginal cost, generators may attempt to manipulate market prices through strategic bidding whenever market conditions allow and whenever profitable to do so. Typical of electricity spot markets, PJM's energy market is susceptible to gaming because of the need to instantaneously balance demand and supply, the inability to store energy over time, barriers to new entry in the short term, and the relative inelasticity of demand.<sup>20</sup> Whenever

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<sup>18</sup> In PJM's energy market, supply bids are selected in order of increasing cost in order to satisfy load in any particular hour. The most-expensive bid selected sets the market-clearing price for that hour. Under a single-price auction all supply offers that are selected to satisfy load in that hour are paid not their bids, but the market-clearing price for that hour.

<sup>19</sup> Even the marginal unit has an incentive to bid at cost, since it recovers its fixed costs through revenues received from the installed-capacity market. Thus, under workably competitive conditions, PJM energy prices should not be as volatile as in California, where, lacking a capacity market, marginal units must bid significantly above marginal cost to recover all of their fixed costs through the energy market.

<sup>20</sup> Electricity spot markets may also be prone to tacit collusion, as a result of the fact that the bidding process is repeated every day and every hour, allowing bidders to learn other firms' bidding strategies through frequent interactions in the price-setting process. See, for example, Paul Klemperer, "What Really Matters in Auction Design", Preliminary Draft, Oxford University, October, 2000.

demand levels approach or exceed the level of available capacity, opportunities arise for generators to profitably withhold capacity and increase market price.<sup>21</sup>

As is now widely recognized, a critical short-term measure for moderating wholesale market power is to increase the elasticity of demand bid into the wholesale market. If a significant amount of load can be curtailed in response to wholesale prices, then this “price-responsive” load will effectively cap the market price at the level at which load is willing to be interrupted.<sup>22</sup> The PJM ISO is currently engaged in an effort with PJM market participants to develop and implement a system to allow price-responsive load to be bid into the energy market by retail suppliers.<sup>23</sup>

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<sup>21</sup> In extremely tight conditions, a generator can increase market price simply by bidding up the price of its marginal unit, if it knows that the ISO must dispatch that unit to meet demand. More typically, as noted above, a generator will withhold infra-marginal capacity in order to force the ISO to rely on more expensive units on the margin. In this case, the generator need not manipulate the bid of its marginal units, or even own the marginal units, to increase market price over competitive levels.

For example, suppose that a power producer owns 800 megawatts of \$30/MWh capacity, and that the market price for a particular hour, absent withholding, is \$50/MWh. A market-clearing price of \$50/MWh indicates that all 800 megawatts of the lower-priced \$30/MWh capacity would be selected for dispatch. Absent withholding, then, this power producer would be paid \$50/MWh for all 800 megawatts, for a total profit of \$16,000. If the producer withheld 200 megawatts, and that withholding forced the ISO to call on \$60/MWh capacity to make up the shortfall, then that producer would be paid \$60/MWh for the 600 megawatts not withheld, for a total profit of \$18,000. In this case, withholding increases profits by \$2,000.

<sup>22</sup> In other words, price-responsive load bidding cannot prevent capacity withholding by dominant generators, but can reduce the effect on market price, and thus profitability, of withholding. In essence, price-responsive load is bid in at the price at which it is willing to be interrupted. Once price reaches that level, the price-responsive load will be the marginal resource that sets the market price. As long as the load bid is lower than the bid of the marginal supply resource that would have been dispatched but for the load bid, the effect of withholding on market price will be less than without load bidding.

<sup>23</sup> Under a system that allows load bidding, a retail supplier can bid an amount of its customers’ load to be curtailed and a price at which the load can be curtailed. The ISO can then treat this load bid in the same fashion as supply bids when selecting resources in

The imperative to increase demand elasticity does not mean that retail shopping credits should be increased or uncapped. Contrary to popular perception, exposing retail customers to excessive wholesale price levels and volatility will neither significantly increase demand response nor dampen wholesale market power in any other manner. Customers will not react to these price signals in any measurable fashion because they have limited ability to either see such signals, due to an absence of real-time metering, or to curtail load in real-time in response to such signals. As noted by California PUC Commissioner Carl Wood in hearings before the U.S. House Energy and Air Quality Subcommittee, absent any material ability to respond to wholesale price signals, uncapping the shopping credit simply exposes customers to excessive wholesale prices:

If you raise rates, it simply transfers the burden of this dysfunctional market to another group of parties, which would be the customers of all classes. And presently, the utilities have been a buffer; they've suffered immensely as a result of it, and unfairly, I believe. But it doesn't solve the problem; it simply means that the consumers rather than the utilities then have to pay these unjust and unreasonable prices.<sup>24</sup>

Nor, as some have argued, will uncapping the retail shopping credit restrain wholesale market power by enhancing competitive opportunities for, and increasing entry by, retail suppliers. While increasing the shopping credit will increase the price against which retail suppliers compete, there is little indication from experience that such increases will promote entry. In Massachusetts, for

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order of increasing cost to meet system demand; the bid load will be curtailed after all supply (and other load) resources with bids lower than the curtailment price are selected. In the case of the load bid, however, the resource will contribute to meeting demand not by generating power, but by curtailing and reducing system demand. As with supply bids, any load bid selected for curtailment will be "paid" the market-clearing price, in the sense that retail suppliers will not have to pay the clearing price to serve the curtailed load.

Retail suppliers have an incentive to curtail their customers' load whenever the market price of power purchased to serve that load is more expensive than the retail price received for the sale of that power to their customers. Retail suppliers will then share some portion of those savings with their curtailed customers in exchange for the right to initiate curtailment and to compensate customers for the value of the lost load.

<sup>24</sup> *Transcript*, Hearing of the Energy and Air Quality Subcommittee of the Energy and Commerce Committee, February 15, 2001.

example, the retail shopping credit has been increased dramatically in the last year to reflect the rise in wholesale prices. Yet, there has been no measurable increase in supplier activity as a result of such price increases.

Even if entry were to increase, retail suppliers would be competing for market share by pricing against excessive wholesale prices (as reflected in the shopping credit.)<sup>25</sup> The result could very well be that customers are offered prices that are discounted against these excessive prices, but which are in fact well above the competitive price of power or even the regulated cost customers paid prior to restructuring. It would be ironic if the promise of retail competition - lower prices than under traditional regulation - were abandoned in order to promote competition for its own sake.

Indeed, in light of market-power problems in PJM and the inability of retail customers to respond to price signals to any measurable degree, capped shopping credits are consumers' sole protection against unjust and unreasonable wholesale prices. It is therefore essential that these caps continue for as long as is required to resolve problems with market power in PJM and to allow for the development of a robust retail market.

By the same token, it is essential that market power be mitigated as completely and quickly as possible. As we've seen in California, unrestrained market power will eventually undermine price-cap protections; the longer a utility is forced to purchase excessively priced wholesale power on behalf of its price-capped customers, the greater the risk that caps will be lifted to forestall utility default. In fact, there has already been a request made by a PJM utility to effectively uncap

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<sup>25</sup> Increased entry could restrain wholesale prices if these retail suppliers bid in their load as price-responsive load. (See the discussion above.) However, the more closely the price paid by customers tracks (excessive) wholesale prices, the lower the economic incentive for retail suppliers to curtail load. Conversely, the retail customer does not need a wholesale price signal as an incentive to curtail, since the retail supplier acquires the right to initiate curtailment in exchange for compensation to the customer. The retail supplier, on the other hand, initiates curtailment whenever wholesale prices received for the curtailed load exceed the foregone revenues from retail sale of the curtailed load (net of compensation payments.)

prices by recovering \$82 million of above-cap wholesale costs from its ratepayers.<sup>26</sup>

As discussed above, PJM is responding to the market-power issue in part by implementing price-responsive load bidding. However, it's unlikely that there is enough curtailable load in the region to significantly dampen the exercise of market power. PJM is also continuing its efforts to monitor the markets it administers, and to close any loopholes in existing market rules and procedures that allow generators to exercise market power. Unfortunately, no matter how comprehensive and aggressive its market-monitoring function, PJM will always be playing catch-up with generators' innovations at circumventing market rules and gaming the system.

Given the limitations in these approaches, OPC believes that more direct and effective mitigation measures are required in PJM.<sup>27</sup> Specifically, steps must be taken to ensure that generators bid no more than their marginal operating costs, as would be expected in a workably competitive market. Either generators should be required to bid marginal costs, as was required during the first year of operation of the PJM ISO, or the ISO should obtain the necessary authority to mitigate bids to marginal cost, consistent with the mitigation approach recently recommended by Commission Staff for the California market.<sup>28</sup>

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<sup>26</sup> Pennsylvania Public Utility Commission, "PUC Defers Ruling on GPU Rate Relief", Press Release, January 24, 2001.

<sup>27</sup> Another mitigation measure adopted by FERC for the California market – a requirement to purchase forward energy – is not applicable to PJM, since PJM already has a robust bilateral market. In 1999, the bilateral market was twice the size of the spot market; see *PJM Interconnection State of the Market Report, 1999*, p. 2. Furthermore, while forward contracts may reduce purchasers exposure to spot-price volatility, they will not materially reduce exposure to high spot-price levels. Forward-contract prices will reflect expectations regarding prices in the spot market; see, for example, Frank A. Wolak, "Proposed Market Monitoring and Mitigation Plan for California Electricity Market", Market Surveillance Committee of the California Independent System Operator, February 6, 2001.

<sup>28</sup> Federal Energy Regulatory Commission, *Staff Recommendation on Prospective Market Monitoring and Mitigation for the California Wholesale Electric Power Market*, Docket No. EL00-95-012, March, 2001. Whereas FERC Staff recommends mitigation to marginal cost only during system emergencies, the California ISO supports such

Constraining bids to marginal cost does not entail a return to cost-based ratemaking or any form of cap on market prices, since prices will continue to clear in the market under a single-price auction.<sup>29</sup> Instead, it ensures that bids and the resulting market-clearing prices reflect competitive conditions. The combination of bid mitigation with market-based pricing promotes the efficient operation of existing plants, by encouraging generators to lower costs and increase the margin of profit between cost and market-clearing price. This combination also encourages efficient entry of new generation, allowing prices to rise to reflect true capacity shortages, while preventing prices from rising to these levels when generators create artificial shortages by withholding capacity.<sup>30</sup>

Most importantly, this combination of bid mitigation with market-based pricing will promote workably competitive conditions in PJM's wholesale markets, allowing wholesale prices to clear at just and reasonable levels, thereby encouraging the development of robust retail markets.

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mitigation in all hours. See *Comments of the California Independent System Operator Corporation on Staff's Recommendation on Prospective Market Monitoring and Mitigation for the California Wholesale Electric Power Market*.

<sup>29</sup> Note that OPC is not recommending replacing the single-price clearing mechanism with a discriminatory, or "pay-as-bid", auction process, as adopted by FERC in California. See *San Diego Gas & Electric Company v. Sellers of Energy and Ancillary Services into Markets Operated by the California Independent System Operator and the California Power Exchange*, 93 FERC ¶ 61,294 (2000). Contrary to FERC's expectations, switching to a discriminatory auction process will not reduce the susceptibility of electricity spot markets to gaming, and in fact, may increase opportunities for price manipulation. See Alfred E. Kahn, et. al., "Pricing in the California Power Exchange Electricity Market: Should California Switch from Uniform Pricing to Pay-as-Bid Pricing?", report to the California Power Exchange, January 23, 2001. FERC Staff has also come out on the record in opposition to pay-as-bid pricing. See *Staff Recommendation on Prospective Market Monitoring and Mitigation for the California Wholesale Electric Power Market*.

<sup>30</sup> The profit margin under cost-based bidding, together with revenues from the installed-capacity, should be more than adequate to attract new generation.