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PROFILES IN ELECTRICITY ISSUES:

COMPETITIVE BIDDING

SUMMARY

Several states have implemented competitive bidding programs for the procurement of new electric generating capacity. They recognize that competition exists in the generation sector and that competitive bidding is one way to lower costs. Many more states are considering establishing their own bidding programs.

Most of the first bidding programs were limited to QFs. These programs were used by those states to fulfill their responsibilities under Public Utility Regulatory Polices Act (PURPA). Bidding was viewed as a more efficient method than administrative procedures for allocating capacity payments to QF's and for determining the avoided cost.

ELCON supports competitive bidding and believes that workably competitive bulk power markets can assure the availability of the lowest cost power possible, consistent with an adequate and reliable supply. ELCON also supports the concept of all-source competitve bidding, provided that nondiscriminatory transmission access or wheeling is available to nonutility generators to assure a fair and efficient bidding process.

All-source bidding, with transmission access, limits the exercise of monopsony power by the purchasing utility. The alternative, bidding among QF's only, is not as pro-competitive as all-source bidding. All-source bidding with transmission access would prevent significat adverse impact on QF's statutory rights while still allowing safeguards to protect the integrity of the bidding process.

ELCON believes that any legitimate concerns as to reliability, capacity, economy energy purchases, or economic dispatch should be satisfied through a summary public proceeding by the appropriate regulatory agency. This summary proceeding would be held prior to any wheeling and would enable utilities to rebut a presumption that capacity to wheel exists.

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ELCON COMMENTS ON COMPETITIVE BIDDING

INTRODUCTION

In March 1988, the Federal Energy Regulatory Commission (FERC) issued its Notice of Proposed Rulemaking (NOPR) on regulations governing bidding programs [1]. The Commission's stated purposes for the NOPR were to more accurately establish avoided costs, using competition as the best means of achieving that objective, and to promote the goals of the Public Utility Regulatory Policies Act (PURPA). FERC stated that:

> ... the principal objective of bidding is to further the purposes of PURPA by affording nonregulated electric utilities and state commissions an alternate means to price QF power, to promote equitable rates for consumers and efficient use of facilities and resources by electric utilities, and to prevent discrimination against QFs.

At the time FERC's bidding NOPR was issued, several states had already successfully implemented forms of competitive bidding, and many more were planning to do so. These state initiatives had been driven, in part, by pressures to change utility capacity procurement practices, such as the policy of giving capacity credits to QFs on a "first-come, first-served" basis [2]. States were also advocating a "level playing field" where traditional utility resources would have to compete with non-utility generators (QFs and independent power producers or IPPs) and even demand-side management (DSM) programs [3]. Lower cost generation or more accurate avoided cost determination, or both, were the goals. As a practical matter, states that encouraged active competition among non-utility generators (and other utilities) also had to provide for wheeling [4]. Non-utility generators, particularly QFs, needed nondiscriminatory access to transmission because it was not always feasible nor economical to site a facility within the immediate confines of the purchasing utility's franchise area.

WHO SHOULD BE ALLOWED TO BID?

All-source bid solicitations generally have been proposed to allow participation by QFs, non-utility IPPs (i.e., "true independents"), and utility-affiliated IPPs -- but not IPPs affiliated with

the utility seeking bids for new capacity. More controversial and not widely supported is participation by the utility itself (or its affiliate) and DSM programs [5]. For example:

- The Massachusetts Department of Public Utilities (MDPU) issued its first regulations for QF-only competitive bidding in 1986. The MDPU has since proposed new rules for an "all-resource" bidding process that includes QFs, IPPs, conservation, load management, and even the utility itself. The MDPU also requires that wheeling be provided to sources located outside the purchasing utility's franchise area [5].

- A competitive bidding system adopted by the New Jersey Board of Public Utilities in 1988 would allow participation by QFs, IPPs, and conservation investments in excess of 40 kW. The utility's QF or IPP affiliate(s) would be barred from bidding for the first three years of the annual bidding process [6].

- Virginia Power's March 1988 bid solicitation was explicitly directed at QFs, IPPs, and other utilities, but not itself or its affiliates. Wheeling was promised to accommodate anticipated bids from low-cost coal-fired generators in West Virginia [7].

Conditions on All-Source Bidding to Prevent Discrimination Against QFs

ELCON supports all-source bidding, if and only if, transmission access such as "wheeling-in" and "wheeling-out" are provided. These terms were not formally included in the FERC's proposed rules but were offered "for comment" to interested parties in the proceeding (See Figure 1). ELCON believes that all-source bidding must be conditioned on a broader definition of transmission access to assure a competitive and accurate avoided cost, to provide for nondiscriminatory treatment of QFs, and to achieve a fair and equitable electric rate structure [8]. Access to multiple bulk power markets is a critical aspect of the ability of non-utility generators to compete. Under current law and regulations, only QFs have an absolute right to compel utilities to buy needed capacity. QFs would lose that statutory preference if IPPs are allowed to participate in bidding and QFs were denied access to distant markets. Given PURPA's mandate to encourage QFs, all-source bidding programs must not be implemented in a manner that deprives QFs of an opportunity to sell their power in other markets.

If transmission access is not a condition of the bidding process, then bidding must be limited to QFs with all other potential sources taken into account in determining the avoided cost or *benchmark*. Without access, all-source bidding will injure QFs as a class by greatly reducing the opportunity for QFs to sell power to utilities that need capacity.

Figure 1

FERC DEFINITIONS OF "WHEELING-IN" AND "WHEELING-OUT"

WHEELING-IN

A utility that wishes to submit a bid to satisfy the capacity needs of some other utility would have to provide firm transmission service to the purchasing utility for successful bidders that are located within the bidding utility's own service territory or are capable of reaching one of its interconnection points.

WHEELING-OUT

A utility's submission of a bid in a bidding program held to satisfy its own capacity needs would be conditioned on the utility's agreement to wheel power to other utilities that border its service area for any bidder that is not successful in the bidding process and that wishes to sell to another wholesale purchaser.

Source: Preamble. FERC Docket No.RM88-5-000, "Regulations Governing Bidding Programs," Notice of Proposed Rulemaking, March 16, 1988, pp. 87 & 89.

Bidding by IPPs, Utilities, and Utility Affiliates

In a companion rulemaking to the bidding NOPR, the FERC proposed to define a new category of wholesale electric power suppliers called independent power producers or IPPs [9].

Entities qualifying as IPPs would be exempt from Federal cost-of-service rate regulation and various reporting and accounting requirements. In addition, the proposed rates would limit FERC oversight of certain IPP transactions and corporate structures. While we agree in principle with FERC's policy of encouraging alternative sources of generating capacity, the current regulatory framework already permits the Commission to waive Federal Power Act requirements for any non-traditional generating sources on a case-by-case basis [10].

The much publicized Ocean State Power Project[1] is ample evidence of the workability of existing regulatory requirements [11]. Thus, we would support the development of IPPs as defined by FERC in its proposed rulemaking, but only if appropriate measures are adopted to guarantee a truly competitive bulk power market. The Commission's proposal is based on the premise that IPPs will not only supply additional capacity, but that the increase in the number of electricity suppliers will enhance competition in the bulk power market. But a truly competitive market must provide multiple selling options (i.e., multiple buyers) for multiple suppliers. Without guaranteed access to wheeling services, alternative suppliers of power will continue to be confined to limited markets by utility control of transmission facilities, thereby depriving ratepayers of the full benefits of efficient markets.

In considering the justifications for the relaxed rate regulation of IPPs, ELCON again notes that IPPs are allowed to exist under the present system of regulation. Further, even if IPPs can generate power at lower costs, there remains no statutory or regulatory guarantee that this will result in reduced utility rates.

IPPs (like QFs) can reduce ratepayer risks because their relatively smaller sizes and the different motivations of their owners have the potential for reducing the need for expensive replacement power in the event of equipment failure [12]. However, the consequence of such failures (i.e., the need to procure replacement power) cannot be shifted to IPPs. It will always

[1] The Ocean State Power Project is a partnership of private developers and electric utilities. The first phase of the project will consist of a 235 MW gas-fired combined cycle unit located in Rhode Island. It is the first major independent power producer (IPP) that is not a qualifying facility (QF) under PURPA.

be the responsibility of the utility because of its obligation to serve, and the cost of replacement power, in whole or in part, will always be passed on to ratepayers.

Recent examples of utility self-dealing, as well as the background of the Public Utility Holding Company Act (PUHCA), demonstrate the potential for anticompetitive abuses arising from unrestricted utility participation in IPPs [13]. State commissions lack the resources necessary to monitor utility activities to the degree required to safeguard completely against mutually noncompetitive purchases, "daisy chains," and misallocation of costs. Utility affiliates should only be allowed to become IPPs if sales are restricted to buyers outside the parent utility's "zone of economic influence." Utility affiliates should only be subject to streamlined regulation if the purchasing utility's price cap is determined by a bidding program. If there is not a bidding program, a utility-affiliated IPP should be subject to the same regulation as is currently required.

ELCON believes that where a utility evaluates the proposals in a bid solicitation, that utility should not be allowed to bid for its own needs. However, the effective degree of competition in the bid solicitation is not reduced by excluding its participation. The utility's "bid" would be reflected in the benchmark.

Demand-Side Management Programs

Demand-side Management (DSM) programs attempt to manipulate customer usage of electricity (usually by reducing energy consumption in kWh) so as to effectively establish a supply-side credit (in kW). This credit would qualify for the utility's avoided cost or some other incentive such as long-run marginal costs [14]. The range of options typically promoted in utility DSM programs is quite diverse. It includes rebate coupons or other subsidies for the purchase of "energy-efficient" appliances and end-use equipment, free appliances, free consultant services, special rate incentives, and targeted advertising or other media expenditures.

ELCON believes that DSM programs should not be considered in utility bid solicitations because they have not been proven to avoid capacity. However, DSM technologies such as

direct load controls (DLC) on certain customer appliances or end-use equipment may be an exception if they can be effectively dispatched on a kW-by-kW basis with the same reliability as conventional load following generators.

HOW SHOULD WHEELING BE IMPLEMENTED IN A COMPETITIVE BIDDING PROGRAM?

ELCON does not advocate that wheeling as a condition to bidding be imposed in the presence of real capacity or reliability constraints. Rather a rebuttable presumption would apply and procedures could be adopted to test legitimate objections in a brief proceeding. ELCON proposes a ten-step procedure to approve a request for a wheeling order (See Figure 2). Concern over the problem of a utility being inundated with requests to wheel that exceed transmission capacity can be addressed through the summary proceeding.[2] In particular, the requirement of a customer providing a letter of intent to purchase will avoid excessive and unwarranted requests for wheeling. However, the summary proceeding should also not be used to manipulate or stonewall legitimate requests for wheeling.

If an operating subsidiary of a utility holding company chooses to participate in a bidding program, then wheeling must be provided by all the operating subsidiaries of the holding company. Similarly, if a tight power pool provides wheeling services to its members and any member engages in a bidding program, the pool must be able to provide wheeling to any bidder located anywhere inside the control area of the power pool, or to any bidder located outside the control area of the power pool who can arrange to have their power delivered to any interconnection point(s) at the boundaries of the power pool's control area. These provisions would ensure QFs and non-utility IPPs an outlet for their power by addressing the potential for self-dealing within a holding company or power pool.

[2] A summary proceeding would vary in scope depending upon the technical and legal issues contested. ELCON believes that in most cases a lengthy evidentiary proceeding may not be warranted.

Figure 2

TEN-STEP PROCEDURE TO APPROVE WHEELING

1. Utility determines that it needs new capacity.
2. Utility files with appropriate state commission its proposed capacity needs (or bid solicitation) and the selection criteria and procedures it proposes to use. Essential parameters should include:
   - -- Amount of capacity
   - -- When capacity is needed
   - -- Projected cost of utility construction (avoided costs)
   - -- Non-price factors (including type of capacity and dispatchability requirements) and weights that are assigned to those factors and the methods to be used to select the winning bids
3. Commission requests public comment on proposed procedures.
4. Utility issues requests for bids (RFB) based on final solicitation procedures.
5. Utility sponsors one or more pre-bidding conferences.
6. Bidders submit their proposals to the utility.
7. Utility selects one or more winning bids, subject to commission certification.
8. Non-utility generators (including losing bidders) then should have the option (a) to sell energy to the local utility, or (b) upon obtaining a letter of intent to purchase from a distant utility or, possibly, desiring to participate in a bidding process of a distant utility, to request a wheeling order from the state commission.
9. The state commission holds a summary proceeding prior to issuing the wheeling order which would address whether the utility has demonstrated reliability, transmission capacity or other technical constraints that overcome a rebuttable presumption that the capacity to wheel exists.
10. The state commission should determine the timing of the process, including the summary proceeding.

SHOULD NON-PRICE FACTORS BE CONSIDERED IN BIDDING PROGRAMS?

In its proposed rulemakings on bidding and the administrative determination of avoided cost (in the absence of bidding), the FERC has proposed extensive guidelines and rules for the application of "non-price" factors in the determination of avoided cost or in bid selection [15].

The use of non-price factors in determining capacity payments or in bid selection may result in multiple prices paid for purchases of QF power. In no instances should those prices exceed the avoided costs. However, even if all prices are less than avoided costs, there remains a question as to the appropriateness of price differentials for purchases of QF power.

Figure 3

NON-PRICE CRITERIA IN BID SOLICITATIONS:
EXAMPLES OF APPROPRIATE NON-PRICE FACTORS

Reliability

Fuel Diversity/Stability

Location

Dispatchability

Schedulability (e.g., Unit Commitment)

Length & Terms of Contract

Financial Viability

Experience

Security

Specifically, it may not be clear whether the price differentials are caused by an appropriate concern regarding, e.g., fuel mix for reliability purposes, or by an inappropriate factor that results in subsidies. We believe that a distinction can be made by focusing on the appropriateness of the factors used to differentiate the payments.

The most important non-price factors arguably are reliability and fuel availability. But these factors conflict with the need to minimize price. Increasing reliability or improving the security of a fuel supply will, all else equal, increase cost, and therefore, the price paid for the capacity and energy from the generator. The task at hand is how and where to make the tradeoff between price and non-price factors without sacrificing the potential efficiency gains intended by PURPA, or as, further proffered, with competitive bidding.

ELCON suggests that this problem can be solved by making a distinction between appropriate non-price factors and non-price factors that can cause subsidies. Appropriate factors directly address reliability and security of fuel supply, while minimizing cost (See Figure 3). Inappropriate non-price factors do not (See Figure 4). This distinction assures all ratepayers that the best tradeoffs have been made between the needs for a reliable supply of power with secure fuel resources, at the lowest possible cost.

Figure 4

NON-PRICE CRITERIA IN BID SOLICITATIONS:
EXAMPLES OF NON-PRICE FACTORS THAT CAN CAUSE SUBSIDIES

Fuel Type (e.g., Renewable Resources)

Use of Local Resources

Economic Development Considerations

Environmental Benefits

A hypothetical example may help clarify this concept. Suppose that a utility needs 1,000 MWs -- 500 MWs dispatchable (e.g., cycling units) and 500 MWs baseloaded. The specification of cycling or baseloaded capacity would be reflected by a different set of non-price factors in the bid solicitation. The utility would have two avoided costs -- the separate capital and energy costs of each of these two types of units. The actual payments to the QFs under an

administratively determined process would be negotiated, subject to the avoided cost caps for each type of capacity. The payments under a bidding program could result from separate bid solicitations for each displaced unit. In either case, payments should not exceed the actual costs avoided.

ELCON believes that advance articulation of non-price criteria with opportunity to comment in a public proceeding is critical. Non-price factors which can cause subsidies should not be considered in bidding programs. The use of non-price criteria represents an opportunity for self-dealing and manipulation of the bidding process. Appropriate non-price factors should be recognized in bid selection, but price should be the dominant factor.

HOW SHOULD STATES BE INVOLVED IN COMPETITIVE BIDDING PROGRAMS?

ELCON believes that state regulatory oversight is necessary to assure a fair and equitable bidding process. State oversight is necessary for estimating the benchmark, bid certification, protection against self-dealing if a utility affiliate is allowed to bid, determining the need for capacity, and other matters where there is a risk of utility self-dealing.

The Calculation of the Benchmark. There should be a benchmark calculation whether (a) there is all-source bidding, (b) bidding is limited to QFs, or (c) bidding is limited to QFs and non-utility IPPs. The benchmark should be calculated based on the utility's capacity expansion plan and estimates of future construction costs. This benchmark must establish the ceiling or backstop for cost recovery from consumers, including situations where utilities build rate-based units. State oversight is necessary no matter who specifically sets the benchmark: the utility, a state agency, or a third-party.

Simultaneous Bidding and Negotiations. Ex parte negotiations after submittal of bids should be limited to matters of clarification and all such contacts must be memorialized in a public record.

State Certification. State regulatory authorities must be delegated a large amount of responsibility to administer bidding programs including the certification of winning bids after

thorough review and the approval of the rates paid to winners. However, it is important for FERC to retain its PURPA oversight function to ensure proper implementation of bidding programs.

Oversight of Utility Affiliates. If a utility's affiliate is allowed to bid, it is essential that there be detailed regulatory oversight to avoid conflict-ridden bidding schemes.

Self-Dealing. A utility should not be involved in the selection of bids if that utility has submitted a bid. ELCON believes that both utilities and utility affiliates should be prohibited from bidding on the capacity needs of their own franchise territory. Utility affiliates also should be prohibited from bidding anywhere within the parent company's "zone of economic influence."

Determination of Need. The need for capacity that triggers a bid solicitation should be determined by the utility and reviewed and approved by the state commission on a periodic basis. The frequency of this review should be a function of the planning uncertainty facing the utility.

Life Cycle Analysis in Bid Evaluation. Life cycle analysis should play a role in the evaluation of bids to assure that various supply alternatives are put on an equal basis. For example, in the Massachusetts bidding procedure used by Boston Edison, the price component of bids are evaluated by comparing the present value of the proposed payment stream to the present value of the "ceiling prices" or benchmark [16]. However, while fine in concept, life cycle analysis can be manipulated or misapplied. For example, decisions based on life cycle analysis are particularly sensitive to forecasts and assumptions about the distant future such as fuel prices. It is important that states review the bid evaluation procedures and retain the ability to make case-by-case evaluations as needed.

Capacity Subject to Bidding. States may elect to use bidding programs to price purchases for all, some, or none of the utilities' capacity needs. ELCON believes that such flexibility appropriately resides with the states. However, no capacity may be sheltered from QFs. Once a utility's capacity needs are fulfilled, QFs are only entitled to energy payments.

State Experimentation. States should be allowed to take the lead in the implementation of competitive bidding programs. Bidding, especially all-source bidding, is a new concept and optimal arrangements may necessarily differ from state to state. Allowing states to tailor programs subject to federal guidance can result in varying experiences and ultimately, improved and more efficient programs. In states where individual utilities have completed more than one cycle of bid solicitations, it is noteworthy that successive requests for proposals (RFPs) and bid selection procedures have arguably increased in sophistication [16]. Considerations of federalism would also be well served [17].

WHAT IS THE ROLE OF THE UTILITY IN A BIDDING PROGRAM?

We believe that the utility is in the best situation to design, specify, solicit, and evaluate a competitive bidding program, once it has determined that it needs new capacity. After all, no one should know better than the utility what type of new capacity it needs to match the changing demands of its customers, to replace a retiring unit, or to meet some other operational requirement. However, if the utility is responsible for the solicitation and evaluation of the bids, it must not also be allowed to submit a bid.

HOW SHOULD WHEELING SERVICES IN BIDDING PROGRAMS BE PRICED?

No single transmission pricing method is optimal in all circumstances [18]. However, there are several critical components to be taken into account in designing a cost-based wheeling tariff. These include:

- Rates should be based on prudently incurred, embedded costs. These include: *capital costs* (transmission lines, transformers, switches, circuit breakers, etc.) and *operating costs* (line losses, generator redispatch, control costs, etc.).
- Wheeling rates should vary by time if costs vary by time.
- Geographical factors should be considered to the extent that they affect costs.
- Interruptible loads should be recognized to the extent that it allows flexibility and increases the ability to meet unanticipated demands.

- Spinning reserves, reactive power requirements and inadvertent power flows should be addressed.

ELCON has grave concerns over opportunity costs[3] and value-of-service pricing[4]. Opportunity costs and value-based pricing can result in an over-collection of costs incurred by the utility, and are inappropriate in a regulated environment where a "just and reasonable" standard is essential. Opportunity costs can be real and significant. They should be considered in determining the desirability of approving or authorizing the transaction. Attempts to base rates on value-of-service are also discriminatory, unworkable and inappropriate in a regulated environment.

Utilities should be motivated to provide wheeling service in adequate quantities by being granted the opportunity to earn a fair return on fair value of all assets used and useful in providing the service. An assertion that the motivation to provide the service is inadequate should result in reevaluation of the adequacy of the return, not by providing price flexibility to a monopolist to enter into discrimination and/or anticompetitive pricing. We believe that a fair return earned on assets used and useful should be adequate "incentive" to provide a monopoly service.

CONCLUSION

ELCON strongly supports the need to promote workably competitive bulk power markets. We believe that competitive bidding programs can lower costs and stimulate economic efficiency. However, the major problems with bidding revolve around obstacles to full realization of the goals of increased competition. Without supplier access to transmission and additional safeguards to protect against utility self-dealing, the full benefits of competition cannot be achieved.

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[3] The "opportunity costs" of transmission services are typically the loss of potential revenues from transactions that may have been foregone as a result of a wheeling transaction. For example, a third-party wheeling transaction may use up transmission capacity and preclude other transactions (such as economy purchases) by the facilities' utility owner.

[4] "Value of service" pricing results in rates to different customers or customer classes based on differences in their demand. Customers with relatively inelastic demand for electricity and fewer or no substitutes would pay a higher price than customers with more elastic demand and many substitutes (e.g., the ability to self-generate).

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