

EXHIBIT B

EVOLUTION OF COMPETITIVE BIDDING FOR NEW GENERATING CAPACITY

I. Introduction

Competitive Bidding emerged as a means of procuring power supplies beginning in the mid-1980's. The main driver of competitive bidding was the need to institute some degree of order in the power procurement process as a result of the response to the Public Utility Regulatory Policies Act (PURPA). PURPA required utilities to offer to purchase capacity and energy from qualifying facilities at the utility's avoided cost. While the original intent of PURPA was to encourage the development of small power producers, renewable resources, and small scale cogeneration facilities, developers were able to qualify larger power generation facilities based on the creation of steam hosts to justify the projects under the FERC efficiency standards. The result was a surplus of power supply for several utilities who were required to sign contracts for power from these facilities at the utility's projected avoided costs. For a number of utilities, the primary source of stranded cost exposure was the above market cost of these PURPA contracts.

Competitive bidding was initially introduced by Central Maine Power in 1984 as a means of rationalizing the market by establishing a process to select only the best projects. Under competitive bidding, all bids would be evaluated at the same time using a consistent set of assumptions and information. In addition, power procurement would be based on the need for power.

Competitive bidding programs have undergone a number of stages (and changes) since the early applications and the processes have evolved with changes in the power market. Generally speaking, there have been four distinct stages of competitive bidding. Each is discussed below.

II. Infancy of Bidding (1984-1989)

A. Self-Scoring Processes

The initial competitive bidding processes were largely self-scoring, highly transparent processes in which the bidder could essentially determine its price and non-price score prior to the time it submitted its bid. Generally, price and non-price components of the scoring methodology were weighted at approximately 50/50. The winner was usually based on the total of the price and non-price points received. The bid price was usually compared to the utility's published estimated avoided cost. Bidders were either required to price at or below avoided cost or were scored relative to the discount to avoided cost they were willing to offer.

B. Limited Bidder Eligibility

The early bidding processes limited bidder eligibility to PURPA qualifying facilities. Many of these projects were must run facilities, meaning the utilities had to take the power produced by these facilities, even if it meant curtailing the output of lower cost resources. Utilities with excess generation were not allowed to bid. The objective of these early competitive bidding systems was to encourage the development of a competitive power industry. Under these initial systems, only long-term contracts were the norm supported largely by unit contingent contracts. Most of the projects developed at this time were located either in the host utility service area or in close proximity.

C. Early Competitive Bidding Processes Fraught with Litigation

Since the selection process in these early processes was generally based on total price and non-price points, bidders attempted to maximize the amount of points they would receive by assessing their points relative to the expected scores of their competitors. This often led to litigation and complaints filed with the regulatory commission if the bidder believed it did not receive the proper amount of points. In fact, the early competitive bidding processes were marked by significant litigation.

D. Many New Generating Capacity Projects Failed to Materialize

While the early bidding systems did encourage a significant response from competitive generators, many projects that were awarded contracts failed for various reasons. For example, the first RFP conducted by Boston Edison resulted in eight projects being accepted for contract negotiation. In the end, only one project survived. One of the major issues associated with these early processes is that bidders offered only a "project concept" without securing a site until a contract was awarded. In many cases, developers eventually moved to different sites due to local opposition or permitting difficulties. As a result, transmission costs/constraints were not considered and site selection/control was not mandatory.

E. Flaws with Early Bidding Systems

These early bidding systems contained a number of important flaws:

1. The initial price analysis methodologies were simplistic, serving only to compare proposal pricing to avoided costs. This meant that utilities evaluated bids assuming the same capacity factor without the opportunity to integrate the bid with its existing generation portfolio. Thus, the purchasing utility could not be guaranteed that it had selected the best project since the potential production cost impacts were not accounted for in this type of evaluation system based on comparison to avoided costs.
2. Most of the early bidding systems allowed only QFs and small power producers to bid. Utilities with excess capacity and non-QF IPPs were not allowed to bid. Thus, a fully competitive market was not achieved, but instead competition was limited to select options.

3. The scoring system in many cases was too transparent, allowing bidders to effectively “game” the system by developing proposals that claimed to maximize the points available.
4. The self-scoring nature of the bidding system led to a significant amount of litigation as bidders spent considerable time comparing their bids against the scores of other bids.
5. The early bidding systems allowed immature projects to compete by not requiring site control, and other development feasibility criteria necessary to determine if the proposal has a reasonable chance of succeeding.

III. Initiation of Integrated Analysis (1990-1994)

A. Links Developed to Integrated Resource Planning Process

The problems associated with the early bidding experiments led to revisions in the competitive bidding process. By the early 1990's, competitive bidding processes began to evolve from a pure point system to a more integrated system approach, often linked with the Integrated Resource Planning (IRP) process. The IRP process established the need for power and the timing and type of the next unit. The RFP process was then used to identify resources to meet the need. This process also allowed the utility to optimize its portfolio by replacing its projected next unit with a range of generation options and selecting the portfolio that minimized overall system cost.

The integrated system process evolved in response to the must run options originally proposed and the displacement of lower cost resources. Utilities realized that not all system costs were considered in the evaluation process, and the selection process could lead to less efficient bids being selected. As a result, utilities became more interested in operational control over proposed projects (e.g. dispatch control became a more important evaluation criteria) and ensuring the best bids from a system cost perspective would prevail.

B. Increased Complexity Led to More Closed System

In this stage of bidding, the evaluation system became a more closed system since the methodologies used to evaluate bids were more complex. Generally, utilities used sophisticated production cost or generation expansion models to effectively evaluate each unit bid or a subset of bids gleaned through an initial price screen based on its operational characteristics.

During this stage of bidding, utilities developed more detailed threshold and non-price evaluation criteria designed to distinguish bids and ensure that more mature projects were eligible to bid. Criteria such as dispatchability, site control, fuel supply availability, and operational characteristics were important non-price criteria. While non-price criteria were still an important part of the analysis, by the end of the period identified above, price became the distinguishing characteristic.

C. Eligibility Standards were Broadened

Eligibility standards also became broader as more options were considered, including new QF's and IPPs as well as excess generation from other utilities. Generally, utilities were still soliciting for long-term contracts, in the order of 15-20 years.

D. Other System Costs were Factored into Bid Evaluation

Finally, other system costs beside the bid price were taken into consideration in evaluating each bid. Utilities began to consider the impacts on system transmission costs and environmental impacts associated with each bid and included these costs in the analysis of the bids received.

E. Increased Market Competition

During this phase of the competitive bidding process, market competition increased significantly. Well-financed and more experienced project developers were entering the market forcing out the smaller and more poorly financed developers who dominated the initial phases of project development activity. Natural gas-fired combined cycle plants began to dominate the market and technological improvements followed. Not only did the cost of equipment drop significantly, but the improvements in unit efficiency and short-lead times for developing and installing these units led to a favorable market position.

In sum, Stage 2 really ushered in a key period for competitive bidding with the use of more sophisticated methodologies and analysis and the integration between the RFP and IRP processes. The best projects (i.e. those that provided the highest overall system value to the utility) and the most mature projects won the bids.

IV. Pre-Restructuring Period (1995-1999)

A. Period of Transition

The third phase of competitive bidding coincided with the movement toward electric industry restructuring driven by the actions in California and other states to open the market to retail competition. In this transition, utilities were caught between the obligation to serve customer load and the concern that such load may leave the system, resulting in stranded generation cost for the utility who committed to long-term power supplies.

B. Flexibility Became Highly Valued

In this market environment, flexibility became the key factor. Utilities began to solicit for options on power supplies and shorter-term resources. Options served to provide an excellent hedge against market uncertainty by providing the holder of the option the right but not the obligation to exercise the option in the contract closer to the commercial in-service date if market or regulatory conditions changed. Thus, options provided flexibility to defer a decision to account for market uncertainty as well as provide insurance against negative market events (i.e. higher market prices).

C. Emergence of Power Marketers

During this phase of the competitive bidding process, power marketers began to enter the market, creating challenges for evaluating the numerous types of products being proposed (i.e. unit contracts, system sales, options, short-term firm contracts, and marketer bids). Utilities attempted to incorporate all types of proposals into a single supply-side RFP process by classifying bids into clusters or buckets and comparing like resources against each other for purposes of developing a portfolio of different types of resources.

D. Options Provided Needed Flexibility

In addition to option contracts, utilities also included option-type concepts in their competitive bidding processes. This included contract provisions such as contract buyout, project acquisition, contract deferral provisions and contract escalation provisions. These provisions provided the buyer the opportunity to purchase the project at a pre-established price proposed by the bidder, terminate the contract, or revise the contract in-service dates (at a price) if the market changed. The purpose of these provisions was to avoid the long-term contractual commitments that were responsible for creating stranded cost exposure.

The flexibility provisions required more sophisticated modeling capability. Option pricing models were used along with sophisticated production cost or generation expansion models to assess the value of a portfolio of resources. As a result, price became the predominant criteria for determining the resource selection process. Since the power market had matured, non-price criteria were used for purposes of ensuring that proposals were feasible and viable.

V. Restructuring Period (2000-Present)

A. Focus Shifts to Market Restructuring

At the outset of the restructuring phase, competitive bidding took a back seat to wholesale market restructuring and the beginning of the merchant power plant boom. From 1999 to 2002, there was little activity involving competitive bidding for wholesale power supplies. Competitive bidding had shifted largely to retail supply acquisition by industrials and to acquisition of generation to meet standard offer service.

However, during the period noted above, several utilities and public agencies began to issue RFPs for renewable resources. These RFPs were generally targeted to one or more types of renewable resources and were designed to meet either public policy objectives in the state or to serve green marketing programs.

B. Renewed Interest in Competitive Bidding

The failure of electric market restructuring and the decisions in several states to delay restructuring activity is leading to a reconsideration of competitive bidding for meeting resource obligations. The new bidding processes are reflecting some of the market inefficiencies highlighted in the restructuring process and the financial crisis that has followed the power marketing and merchant generation sector.

Over the past few years, resource procurement processes are again focusing on longer-term commitments from reliable suppliers. In the current environment, credit quality of the counter-party is now the most important non-price criteria. Buyers need to feel comfortable that any party with which they enter into a longer-term contract will be able to perform on their obligations and are strong enough financially to complete their commitments of pay the requisite penalties. Of course, many utilities in areas with limited transmission access to other markets require firm physical power, rather than financially firm power (e.g., Florida, Vancouver Island, Hawaii).

C. Utility Self-Build Projects Becoming More Prominent

In this current uncertain environment, utilities are also considering the development of their own power projects to ensure reliability of supply as opposed to contracting with a financially vulnerable generator who may decide it does not possess the capability or willingness to complete its development projects. For example, utilities in Oregon and Florida have recently selected the utility self-build projects in their RFP processes. PacifiCorp recently selected a turnkey option in response to its RFP.

Interestingly, the financial deterioration of the power generation industry has made it much more difficult for power generators to finance power projects. In this environment, borrowers generally have to pay more for debt, particularly those generators with a low credit rating, and banks are requiring more equity in the project. This is resulting in a capital structure and cost very similar to the utility capital structure. Thus, the one time financing advantage enjoyed by independent generators relative to utilities has eroded, resulting in utility projects being more competitive with independent projects.

In addition, many utilities who have gained significant experience in the fuel markets through their power marketing or generation subsidiaries are more willing to manage fuel risk and are offering tolling options for power generators. Such a service basically means that the distinguishing cost criterion is likely to be capital cost. Since the financial crisis in the power marketing and generation markets has led to significant credit downgrades, the cost of capital and capital structure advantage enjoyed by independent generators at the expense of the utility has been all but eliminated.

Utility self-build options are more competitive than at any time since the initiation of competitive bidding. This situation combined with site access, transmission access, and reliability objectives of the utility lead to a more competitive market.

D. Increasing Importance of Reliability

Project reliability is becoming a more important factor, particularly in those regions where physical power is required. Longer-term unit contracts are reemerging in the market. While price continues to be the primary selection criteria, credit quality of the counter-party is now the most important non-price criteria. Also, the importance of transmission access/cost has emerged as an important factor on the price and non-price sides of the evaluation process. In the merchant sector, reliability concerns have been raised in several regions since the objectives of the merchant is to make a profit and not to maintain reliability at any cost.

E. Broader Range of Supply-Side Resource Options Desired

Recent utility RFPs are also seeking a broader range of supply-side resource options, including power purchase agreements, utility self-build options, turnkey arrangements, acquisition of partially or fully completed merchant plants and other creative options. Fuel diversity is also becoming more important due to the recent increase in natural gas prices and concern over supply availability.

The evaluation methodologies used by the utilities to evaluate bids remain sophisticated. In many cases, portfolio evaluation methodologies are being used to construct and evaluate a portfolio of resource options.

VI. Recent Trends in Competitive Bidding

Several of the recent trends that have become industry standards for competitive bidding approaches and processes include:

- Integrated evaluation systems are the norm rather than simpler self-scoring or transparent processes. These methods allow the utility to more effectively optimize its resource plan by comparing the cost of a resource or portfolio of resources against other options based on total system cost analysis.
- Recent RFPs have been focused on supply-side resources only (including renewable resources in some cases). There has been few (if any) all-source or DSM only RFPs.
- As the independent power industry has matured, price related criteria have become the predominant selection criteria. Non-price criteria are used to ensure projects are viable and feasible. Many processes now attempt to make the non-price criteria as objective as possible, minimizing the amount of subjective judgment in the analysis.
- Self-build options by the host utility are more acceptable at the regulatory level. For example, the competitive bidding rules in Oregon originally required that a utility or affiliate project could not compete in the RFP. In the recent Portland General Electric case, the Commission allowed a utility self-build option to compete, with conditions. In the current market environment, self-build options provide reliability and security against failure of other projects and are generally competitive in the market due to the recent financial crisis in the power generation industry and the convergence of utility and non-utility capital structures. In addition, self-build projects ensure that all resource options are allowed to compete. Failure to disallow utility options could mean that the lowest cost resources are not considered to the detriment of customers and shareholders.
- Utilities are generally seeking more flexibility in the power procurement process and in making resource commitments. This includes developing a portfolio of short and long-term options, maintaining in-service date flexibility, and maintaining operational flexibility over the project.

- The Request for Proposals usually integrates the RFP document, with the Power Purchase Agreement and Response Package or Bid Form. This process serves to link the information required of bidders to the evaluation criteria and allows the bidder to reflect the buyer's preferred contract risk in its bid.
- Bidding processes are generally designed to encourage a broader range of supply-side option, including traditional fossil-fuel options, renewable resources, and short-term firm contracts.
- The credit quality of the counterparty is one of the most important considerations in the evaluation and selection process. As a result, the level of security required is increasing and utilities are more restrictive with regard to security requirements.
- Some utilities are taking on the fuel supply function through tolling agreements.