Using Auctions to Divest Generation Assets

In most states, ratepayers will compensate utilities for their stranded costs. As a result, these costs must be measured as accurately as possible, in a manner that is easily understood by all concerned parties. We describe the options for measuring stranded costs and argue that a simultaneous ascending auction is the best approach.

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Deregulation of the electric power industry is proceeding rapidly, forcing utilities to compete on price at both the retail and wholesale level. To ease the transition to competition, most states will compensate utilities for the difference between costs incurred on past capital investments under regulation and the profits they can expect to earn on these assets under competition. This difference, which is referred to as stranded cost, is typically calculated by subtracting the market value of an asset from its book value.

Most utilities will recover stranded costs from ratepayers in the form of a universal service charge or a “competitive transition charge’ (CTC). The magnitude of the CTC depends on the market value of the utility’s assets. Since a higher estimate of market value will produce a lower CTC, regulators and ratepayers are scrutinizing the method that the utility uses to estimate market value.

To estimate the current market value of their plants, utilities can either obtain a market price for the assets by divesting them or negotiate with regulators on an estimated price for the assets. Several states have required utilities to obtain market prices, for a number of reasons. First, market prices are less controversial than appraisals and are therefore less likely to get bogged down in litigation. Second, divestiture can alleviate regulators concerns about vertical market power in a deregulated industry. Third,

the divestiture process can be designed to disperse asset ownership, if regulators are concerned about horizontal market power under the new market structure.

Utilities that are seeking to value their assets through the market while divesting can use auctions, negotiations, or spin-offs. In an auction, the utility widely advertises the plants and allocates them to bidders using a mechanism that states all rules in advance. In a negotiated sale, the utility sells plants for cash to purchasers in a private transaction. In a spin-off, the original corporation is separated into two and stock in the new firm is distributed to shareholders in the original firm. The market value of the assets is determined by the trading value of the new firm's shares.

Auctions are currently the most popular market valuation method because they are easily monitored and understood by regulators, ratepayers and bidders. As a result, they can withstand public scrutiny better than alternative market valuation methods. Auctions also produce greater revenues than negotiations or spin-offs under most circumstances. [1] Finally, auctions have a proven track record of success – the spectrum auctions conducted by the Federal Communications Commission (FCC) are a prime example.

Although auctions are generally perceived as equitable, efficient and revenue maximizing, it is important to realize that some auction designs produce better outcomes than others do. The purpose of this paper is to review auctions as a method for divestiture. First, we present the ingredients necessary for a successful auction. Second, we describe the auction process most commonly used by utilities selling their generation assets – a sealed-bid auction in which all plants are sold simultaneously and winning bidders pay the value of their bids. Third, we discuss how well this auction format performs on standard

[1] As long as there are more than one or two potential bidders, auctions typically yield higher prices than negotiation. See Jeremy Bulow and Paul Klemperer (1996), "Auctions vs. Negotiations," *American Economic Review*, 180-194. An auction of several power plants is also likely to yield greater revenues than a spin-off of these same assets. This is because buyers seeking to purchase the assets outright (and thus control their use) would probably be willing to pay more than the market would pay for a non-controlling ownership interests in those same assets (through the purchase of stock.)

design criteria. Fourth, we describe the simultaneous ascending auction, which we view as a superior design in this setting. Finally, we summarize our findings.[2]

I. Auction Design Requirements

This section reviews the four ingredients necessary for a successful auction. The seller must: (1) establish the objectives for the auction; (2) identify the items being sold and provide adequate information so that buyers can obtain financing for their bids; and (3) incorporate procedures to ensure that bids are credible and to mitigate gaming.

A. Establish Auction Design Objectives

The auction designer's job is to develop an auction that meets the sellers' goals. In the case of asset divestitures, the two primary goals are clear. First, the auction should maximize the revenues that the utility receives for its assets. Second, these maximum revenues should be elicited in an open and transparent process.

1. Revenue Maximization

A revenue-maximizing auction must take account of potential bidders' preferences in three ways. First, it must mitigate the winner's curse, which is the tendency for naïve bidders to overpay for the assets that they win in an auction. The winner's curse reduces revenues because it induces rational buyers to bid low so that they do not overpay for the items that they win.[3] Second, the auction must promote efficiency. In an efficient auction, bidders who value the assets most win the items. Efficiency maximizes the total

[2] J. Lesser and M. Ainspan, Using Markets to Value Stranded Costs, Electricity Journal, October 1996, at 66, also provide a useful discussion of why and how auctions should be used to value generation assets.

[3] To understand how the winner's curse arises, consider the case where all firms can earn the same profit by winning a particular item yet each firm has a different guess as to what the true profit will be. The firm with the most optimistic estimate of the value typically wins the auction. However, the winner will lose money on the item if it does not take into account the fact that winning implies it overestimated the value the most.

wealth to be allocated in the sale, and so is largely consistent with revenue maximization.[4] Third, the auction must provide bidders with ample opportunity to acquire their preferred groups of plants. For example, a bidder might want to acquire several geographically proximate plants in order to share staff, management, and equipment among the facilities. An auction will elicit more aggressive bidding if it provides bidders with a fair chance of winning their desired asset grouping.[5]

2. Transparency

In a transparent auction, the rules and procedures are fixed in advance, and applied equally to all participants. Transparency requires the auction designer to specify a set of rules in language that is both straightforward and legally adequate. This is a difficult task, but if several utilities use similar auction formats to sell their generation assets, then bidders and regulators will easily understand the auctions.[6]

B. Provide Adequate Disclosure

In an auction, the seller must fully describe the assets being sold. It should also provide information that would help the bidder to evaluate the assets' value. By providing complete information on the assets being sold, the seller encourages maximum participation in the auction. Buyers (and their bankers) no longer fear the risks hidden in incomplete or ambiguous terms. Sellers also benefit from increased participation because it drives up asset prices.

It is straightforward to describe a sales contract for a previously existing entitlement or a freestanding generation facility. The seller should also disclose each plant's specifications, historical operating and accounting data, and existing contractual relationships with labor unions and fuel suppliers. Finally, the seller should completely specify any additional obligations that the sale imposes on the buyer.

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[4] Efficient auctions also ensure that substitute items will fetch similar prices. This implication of efficiency increases bids because it enables purchasers to show their superiors that they did not overbid.

[5] In the spectrum auctions, bidders often wanted to win the same frequency in neighboring markets (e.g. Philadelphia, Baltimore and Washington, DC).

[6] An especially fine codification of auction rules and procedures is Federal Communications Commission (1994), *Second Report and Order*, FCC 94-61, Washington, DC, as well as the Bidders Information Package issued for auctions of broadband spectrum licenses.

For example, buyers are typically required to meet federal, state and local environmental standards and to comply with the ISO's dispatching protocols. The assets may also come with an obligation to provide "standard offer service" during a transition period to competition.[7] These obligations can either be delineated in the general provisions for deregulation, or in the sales contract.

C. Ensure that Bids are Serious

Below we describe a series of measures that help to ensure that bids are serious. A serious bid is one that is not easily withdrawn; it represents a firm contract between seller and buyer. Neither side is able to breach the contract without incurring penalties that approximate the cost of the breach.

1. Provide Time Schedule of Adequate Length

An auction, unlike a series of negotiations, requires the coordinated participation of many bidders simultaneously. Each bidder needs ample time to develop operating projections and value estimates. Some then need further time to use these projections to solicit investors or loans, or to build a consortium. In addition, investment banks that want to participate in the auction need time to establish corporate entities whose shares can then be resold to a wider range of funds and individual investors. An auction timeframe that is too short or ambiguous is bound to limit participation by serious bidders and thereby reduce sale prices. Experience with the spectrum auctions suggests that the minimum adequate leadtime is about six months.

2. Screen Bidders

Before the auction is held, the seller should prequalify interested buyers to ensure that they are financially capable of purchasing the plants being sold. When potential buyers are screened for their ability to complete the transaction before the auction, then sellers can judge final bids on price alone. Prequalification criteria include proof of adequate financial resources, as well as information about any

[7] See Peter Cramton, Andrew Parece, and Robert Wilson (1997), "Auction Design for Standard Offer Service,"

regulatory constraints that could delay the sale. Bidders need not be prequalified on the basis of their prior operating experience. If entities from outside the power industry are allowed to bid as owner/investors, they can subcontract plant operations to others qualified to obtain operating licenses.

3. Mitigate Default Risk

To ensure that bids are serious, the auctioneer must establish enforceable penalties for withdrawal of bids. When a bidder withdraws a bid that he makes during one round of a multiple round auction, he should pay a penalty equal to the difference between the final selling price and the price specified in the withdrawn bid. When a bidder defaults after the conclusion of the auction, his penalty should reflect the additional cost of reauctioning the item. Penalties for both types of withdrawal should be deducted from a substantial initial deposit or security bond. These measures assure serious bids, since a bid is a formal contract between seller and buyer with penalties for breach specified in the rules. Finally, winning bidders should be required to provide an immediate down payment and to quickly complete their transactions, subject to penalties for default.[8]

4. Eliminate Possible Conflicts of Interest

Conflicts of interests arise when one of the bidders is affiliated with the auctioneer. In generation asset auctions, the distribution company that is holding the auction may wish to participate in the auction, either directly or through an affiliate. This is potentially a problem, since the auctioneer has access to bidding information that is not public to the other bidders. To avoid this conflict of interest – if the distribution company or an affiliate elects to participate in the auction – it is necessary to delegate the actual running of the auction to a third party, ideally a professional auctioneer. The auctioneer implements and enforces the rules of the auction, and makes all decisions in cases where the rules allow discretion.

Working Paper, University of Maryland.

[8] This approach, which requires bidders to establish their financing commitments in advance, may hinder some "smaller" bidders, but is unlikely to affect major bidders. Alternatively, the seller can accept installment payments for the assets. Installment payments increase the risk of default. However, they attract smaller bidders with limited access to capital markets and therefore may increase sale prices.

There is no net cost to this delegation, once in-house opportunity costs are recognized, since professional auctioneers are in a better position to implement auctions based on their years of experience.[9]

D. Promote Reliable Price Discovery and Reduce Gaming

Auction rules must be tightly constructed to close loopholes that might be exploited by bidders. These loopholes increase bidders' participation costs by forcing them to invest resources in developing complex bid strategies. This is especially harmful to small bidders who may not have the resources to develop complex bid strategies. These bidders may go into the auction with an incomplete analysis and hope for the best, or they may simply decide not to participate. Wise bidders will often opt for the second option.

Even very simple, standard auction formats can generate complex strategic issues for bidders. For example, it is difficult to develop an effective bid strategy in a first-price sealed-bid auction, even though it has very simple rules (high bidder wins and pays its bid). No simple rule of thumb can be followed. "Bid less than your valuation" is a good start, but how much less? To answer this question the bidder must conduct a careful equilibrium analysis that involves assessing what the other bidders may do.

II. Current Auction Designs

Here we review the auction designs being used by three utilities at the forefront of the divestiture process, New England Electric System (NEES), Pacific Gas & Electric (PG&E), and Southern California Edison (SCE). Our review of the NEES auction is based on divestiture auction procedures circulated by NEES' legal counsel, while our review of the PG&E and SCE auctions is based on descriptions of the auction process filed with the California Public Utilities Commission.

NEES recently completed its divestiture auction, selling over 5000 megawatts of capacity to U.S. Generation Co. for a total of 1.59 billion dollars. PG&E and SCE are currently reviewing their bids on

[9] This discussion assumes that seller participation in the bidding cannot (and on efficiency grounds, should not) be

plants. All three utilities used the two-phase sale process, described in detail below. Several other utilities, including Boston Edison, Central Maine Power, Commonwealth Electric, Consolidated Edison and Eastern Utilities Associates are also using the two-phase process but have not yet filed descriptions of their process with state regulators.

A. Phase I: Solicitation and Screening

The utility begins the sale process by issuing an offering memorandum to a wide array of potential bidders. The offering memorandum provides detailed information on the plants being sold, including their operational, environmental, and financial history. It usually provides a timetable for the sale and pro forma versions of the purchase sales agreement and other contracts that will govern the plant's operation after it has been sold. State regulators usually approve the pro forma contracts before the auction takes place.

Firms that have received the offering memorandum are invited to submit non-binding indications of interest. These indications of interest typically require bidders to submit a non-binding bid for one or more plants. In addition, bidders must submit information about their financial strength, prior experience in owning and operating power plants, an explanation of how the purchase will be financed, and information about regulatory approvals that the bidder will need to complete the transactions. Utilities use these indications of interest to screen out bidders who are unlikely to have the financial resources or regulatory approvals required for completing the sale. They may also screen out bidders who may have the necessary financial qualifications but who submit low initial bids.

The remaining bidders are given the opportunity to extensively investigate the plants being sold. In this investigation, which is usually referred to as the due diligence process, bidders meet with utility management and visit facilities that relate to the proposed sale. Sellers also generally provide a data room

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prohibited, since it is unlikely that the state can exclude a seller from joining an alliance with another bidder.

containing additional business, financial, legal and environmental site assessment information. After completing their due diligence, bidders are invited to participate in the final auction.

B. Phase II: Final Sale

Although most utilities use a similar auction format, the information requested in the final bid varies considerably from utility to utility. Some utilities request price only bids while others also request copies of financing commitments and the markup of the purchase agreement that the potential buyer is prepared to sign. The decision to use a price only procedure limits the seller's ability to fine-tune the contract through negotiations. However, the seller may revise his standard contract based on bidder feedback before the final auction. PG&E allows bidders to anonymously submit their suggested changes to the sales agreement. It then sends bidders a revised contract that reflects accepted changes before the final round of bidding begins.

Some utilities, like PG&E, use the auction to award the sales contracts directly. PG&E accepts price-only bids and awards the contract to the highest bidder in a simple and transparent manner. Post-bid negotiation is restricted to minor terms and conditions in the sales contract. Utilities can also award sales contracts based on multi-dimensional bids that monetize non-price features with a scoring system. However, it is difficult to design a smoothly functioning, multi-attribute auction.[10]

Other utilities use the auction to narrow the list of bidders to a handful of finalists, with whom they will negotiate. For example, SCE and NEES reserve the right to invite further submissions from one or more sellers. One motive for post-bid negotiation is to extract better offers from auction finalists.[11]

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[10] In order to maintain transparency, the utility should announce the features of the scoring system in advance and make sure that scoring criteria are objective. For a discussion of the difficulties of using multidimensional auctions to award long-term power purchase contracts, see Lisa Cameron (1997), "Limiting Buyer Discretion: Effects on Performance and Price in Long-Term Contracts," on file with *The American Economic Review*.

[11] NEES' counsel justifies the use of post-bid negotiation by referring to its use in several auctions for corporate control, including RJR Nabisco and Gulf States Power. In the case of RJR, the committee reviewing purchase proposals agreed to reimburse a portion of the top bidder's expenses to prevent him from withdrawing from the process as the other bidder prepared a revised proposal. When Gulf States received two comparable offers from Entergy and Central and Southwest Corporation, it negotiated with both companies for almost a year and used

III. Critique of Current Designs

A. Revenue Maximization and Transparency

In most cases, single-round sealed-bid auctions will not maximize revenues because they do not adequately address bidders' concerns. First, single round auctions do not allow bidders to learn about other buyers' valuations during the auction. As a result, bidders will be excessively cautious and submit low bids.[12]

Some utilities implicitly attempt to increase revenues by using the auction to select finalists with whom they will negotiate. Although the negotiation process provides finalists with an opportunity to learn about their rivals' valuations, it still does not lead to revenue maximization. This is because bidders are likely to reduce their bids or simply drop out of the auction in order to mitigate the costs of a long, drawn-out negotiation process. Of course, even if post-bid negotiation increased revenues over those that would be earned in a single round sealed bid auction, transparency would be greatly reduced. The use of post-bid negotiation creates the need for regulators to investigate whether all decisions in the final negotiations were reasonable.[13]

Second, a single-round sealed-bid auction does not provide bidders with sufficient opportunity to assemble their preferred aggregations of plants. This difficulty in realizing synergies among plants reduces bids. Utilities have addressed this problem by allowing bidders to bid on combinations of plants. For example, SCE has grouped its twelve plants into four groups of roughly 3000 megawatts each. Bidders are allowed to bid on up to two packages of plants. In addition, they can form consortia to buy a particular group of plants, if they want only one or two of the plants in a given grouping. Similarly,

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competitive leverage and improving national economic conditions to secure increases in the proposed purchase price.

[12] Sealed bidding can maximize revenues when there are ex ante asymmetries among few buyers. See Eric Maskin and John Riley (1995), "Asymmetric Auctions," Working Paper, UCLA. In a sealed bid auction, the ex ante dominant bidder may have incentives to bid higher than it would be forced to bid in an ascending bid auction. But without ex ante asymmetries, an ascending bid auction performs better because it reduces the winner's curse.

PG&E allows bidders to bid on one or more of the four plants that it has put up for sale. Although these approaches enhance bidders' abilities to purchase plant groupings, they still impose limits on how and when groupings may be formed.

B. Disclosure of the Assets Being Sold

The items are relatively easy to define. PG&E and SCE provide pro forma sales and pro forma contracts for plant operation under the ISO and an operation and maintenance agreement that will apply to each plant for two years after the close of the sale. All of the bidding processes reviewed provide plant operating and accounting history to prequalified bidders, as part of the due diligence process. The main problem here is the process used to prequalify the bidders, as discussed in Section C2, below.

C. Serious Bidding

1. Provide Time Schedule of Adequate Length

PG&E and SCE provide timetables for their proposed auctions. PG&E allows 4.5 months for its auction, and SCE allows 3.5 months. The shorter schedules appear to be too short, given the significant work that bidders must do in deciding to participate, evaluating the assets, raising funds, and developing a bidding strategy.

2. Screen Bidders

Although each of the auction designs that we reviewed screens bidders, not all of the screening criteria employed can be expected to produce serious bids. For example, NEES, PG&E, and SCE all plan to base part of their initial bid evaluation on non-binding price bids. Non-binding bids are a particularly problematic screening device because they are prone to gaming. A bidder can attempt to eliminate the

[13] Also, the auctions should award plants based on price-only bids because, as mentioned above, it is difficult to create a scoring system that can accurately monetize non-price features of the bid.

competition by announcing an extremely high bid. The utility may then eliminate bidders offering lower prices, only to find that the high bidder makes substantial reductions in its bid following due diligence.

Some utilities recognize this problem and attempt to prevent gaming of the first round of competition. For example, PG&E requires bidders to describe, in their preliminary bids, what they need to investigate during the due diligence process in order to make their bid certain. Furthermore, any bidder failing to justify a decrease in bid prices in the final auction may have its bid disqualified without further consideration. Although such precautions can mitigate gaming problems to some extent, there really is no reliable way to reduce the pool of potential bidders based on non-binding bids.[14]

The bidder's ability to post a substantial security deposit is perhaps the best screening device because it forces bidders to "put their money where their mouth is." However, it is important for the auctioneer to specify in advance the type and amount of security required. In addition, this deposit should increase with the quantity of assets that the bidder wishes to purchase.

3. Mitigate Default Risk

Default risk is reduced during the auction by requiring upfront deposits. The deposits should be large enough to cover likely default penalties, yet not so large so as to discourage participation. Bid bonds can be used to make interim bids credible during a multi-round auction. The winning bidder should also pay a substantial down payment shortly after contract signing. A performance bond is also needed as part of the contract. Of the four sets of auction rules that we reviewed, only PG&E specifies a payments schedule. It requires winning bidders to immediately sign the sales contract and to post a $5 million deposit for each plant.

[14] By reducing the pool of potential bidders in the first phase of the sale process, utilities hope to minimize dissemination of confidential information obtained during the due diligence process. However, the benefits of a more controlled due diligence process may be outweighed by the cost of reducing the number of competitors in the final auction. Utilities should therefore consider streamlining the due diligence process, while using confidentiality agreements to limit leakage of sensitive information.

4. Eliminate Possible Conflicts of Interest

In each of the auctions that we reviewed, conflicts of interest were not adequately addressed. The utility and/or its investment bank run the auction, rather than a professional auction administrator. At the same time, the auction plans that we reviewed do not specify whether the host utility or an affiliate is allowed to bid in its own auction.

5. Reduce Gaming

As noted in Section I, a sealed-bid first-price auction creates a great deal of strategic uncertainty for bidders. Negotiation creates still more. Together, both of these factors can increase bidders' participation costs by forcing them to invest resources in developing complex bid strategies.

IV. The Simultaneous Ascending Auction

Thus far, utilities have used a standard auction design – the first-price sealed-bid auction, with or without post-bid negotiation – to divest their plants. This section focuses on an alternative design that can help utilities to realize more revenue while providing transparency to regulators: the simultaneous ascending auction. The FCC has conducted over a dozen of these auctions to sell slices of the electromagnetic spectrum to bidders. It has raised over $23 billion for the US Treasury, and is considered by many to be the best design when selling a number of interrelated items.

The auction is easily implemented with software that enforces the rules and provides critical information to bidders when it is desirable to do so. Below, we provide a brief description of how the simultaneous ascending auction works and discuss how it could be implemented for generation assets. We then discuss how its design features fulfill the criteria for a successful auction.

A. Brief Description of the Simultaneous Ascending Auction

The simultaneous ascending auction, unlike a standard sealed-bid auction, proceeds in a number of rounds. In addition, all assets are offered for sale simultaneously, rather than one at a time. Before the auction begins, the seller sets a reserve price for each item, below which the item will not be sold. He also provides qualified bidders with disclosures for each item, copies of the sale contract, and written statements of the auction rules and procedures. In response to this information, bidders specify the amount of generating capacity that they want to acquire and post a bond in proportion to this amount.

At the beginning of the auction, bidders are given passwords and software kits that enable them to submit bids. Initially, the auction might consist of two rounds of bidding daily, where each round would be open for bid submission for two hours. Bids are deemed acceptable when they meet the following two criteria. First, they must equal or exceed the property's reserve price. Second, they must be at least as high as the sum of any previous high bid and the increment specified in the auction rules (e.g., 5 percent).

A bidder is considered active on a particular asset if he has submitted an acceptable bid on that asset or if he is the previous high bidder on that asset. The auction's *activity rule* limits the bidder's right to bid in subsequent rounds if he is not active on a prespecified fraction of the capacity on which he had posted a deposit. The activity rule is designed to prevent bidders from dragging out the sale by holding back and waiting for other bidders to show their hands.

At the end of each round the auction administrator reports for each property both the high bid and the minimum bid required next round. The auction closes when no item receives a new bid. The properties are then sold to the bidders that have submitted the standing high bids. Down payments are due immediately after the auction closes, and the remainders are due a few weeks later.

This auction format has many carefully specified rules that are designed to prevent gaming by bidders. In addition to the activity rule discussed above, there are rules that define the rate at which bids must rise in each round (referred to as minimum bid increments), the amount of time between bidding

rounds, and penalties for withdrawal of interim and final bids. Each of these rules has an important bearing on the auction's success. For instance, the bid increment must be selected to ensure a timely close of the auction. The time between rounds must be chosen to provide bidders with sufficient time to adjust their bidding strategies and to confer with corporate officers or investors. Penalties for bid withdrawal must be set to ensure that bidders bear the full cost of breaching their contracts with sellers.

Although the logistical details of this auction format may appear complex, the design is easily implemented with existing software. The software determines bidder eligibility in each round, ranks bids, and ensures that bids comply with the auction rules. Furthermore, the software manages the communication throughout the auction. Bidding can either occur at a common site or be done remotely. This auction design has been used extensively in the past few years, especially in the FCC spectrum auctions.

B. Satisfying Auction Design Goals

The divestiture auction design described above is highly transparent. The rules are objective and stated in advance. The items being auctioned are fully described and the contract terms are specified in advance (except for price). The process of bidding provides a public record of the competition among competing buyers. Bidders win solely because they are willing to pay more for the assets than any other bidder. This bidding process is made credible by the substantial penalties that bidders face in the event of default.

This auction design also tends to maximize revenues. First, it reduces the "winner's curse" by allowing bidders to draw inferences about asset values from others' bids. Each bidder's valuation of a property is necessarily imperfect. Part of this valuation may reflect the bidder's unique characteristics, but the larger part depends on factors that affect all bidders. These common factors include technological developments, fuel prices, the evolving proportions of base and peak demands, and overall demand growth. As the auction progresses, bidders can use the developing pattern of prices as summary

information about the their rivals' assessments of these factors. This learning encourages more aggressive bidding and increases revenues.

Second, this auction format promotes efficiency by helping bidders to construct their preferred aggregations of plants. With all assets open for bidding simultaneously, a bidder has the flexibility to seek whatever asset aggregation it wishes, and can switch to a backup aggregation if its first choice aggregation becomes too expensive. Before the close of the auction, each bidding firms knows whether it is likely to be able to construct its preferred aggregation and roughly how much it is going to cost.

Finally, a well-designed simultaneous ascending auction eliminates loopholes and simplifies auction strategy. Bidders no longer have to be overly concerned with the strategies of other bidders. They can simply bid based on their own valuations. As a result, the price discovery process is more reliable. All bidders have the option to top the standing high bids, and all bidders have the benefit of the prior bids to improve their decisions.

V. Conclusion

Many utilities are now in the process of valuing their stranded costs. We believe that utilities will minimize the risk of future litigation if they obtain a market value for their assets rather than negotiating a settlement with their regulators. We also believe that an auction is the best way to establish a market value for these assets. We have discussed how differences in auction rules can impact sellers' ability to achieve their goals of revenue maximization and transparency. We have also demonstrated that current auction designs are vulnerable to gaming and are unlikely to maximize revenues. In addition, if post-bid negotiation is used, these designs will also be non-transparent. We advocate use of the simultaneous ascending auction for asset divestitures because it is transparent and tends to maximize revenues. Moreover, its rules have been successfully tested in many high stakes situations.