

SETTING PREQUALIFICATION REQUIREMENTS AND CEILING PRICES

CONTROLLING PROJECT QUALITY AND PRICE IN RENEWABLE ENERGY AUCTIONS

Most countries have conditions for renewable energy (RE) auction participation, such as qualification requirements and ceiling prices. In general, stricter requirements give policymakers greater control over auction outcomes and increase the chances that awarded projects will be realized. However, some conditions could entail higher costs for bidders, potentially creating barriers for participation and decreasing competition levels. These effects must be balanced when selecting and implementing conditions for auction participation.

BALANCING CRITICAL PREQUALIFICATION REQUIREMENTS

Auctions can occur at different stages of the project development process. **Risks of project delay or non-realization are the highest at the beginning of the project cycle.** If the auction takes place early in the project development process, before permits are secured, there is a higher risk that projects are delayed or not completed, and that bidders submit unrealistic prices. **These risks generally decrease when auctions occur later in the process** due to requirements that project developers obtain certain permits, conduct feasibility studies, or meet other criteria before entering the auction.

Most countries have implemented late auctions, as this increases the chances that awarded projects will be realized. However, **late auctions increase pre-development costs and may therefore prevent some developers from participating**, which can result in insufficient competition and threaten the success of the auction. When setting prequalification requirements, striking the right balance is key.

Technical requirements ensure high probability of realization but create additional costs for bidders. Technical requirements (also known as project development requirements) involve standardized evidence of project progress, such as proof of access to the site, proof of RE resource measurements, grid connection agreement, an environmental and social impact assessment, or an approved zoning/development plan.

Technical requirements aim to ensure a high probability for awarded projects to be realized, given that they have already overcome some of the risks related to project planning, including securing a location and essential permits. Such requirements can also help bidders submit more realistic prices as they gain more information on site conditions, costs, and the potential effect of environmental regulations on revenues.

However, technical requirements are effectively a sunk cost for the bidder, because they are not reimbursed if the project is not awarded. These costs manifest as additional risks for the bidder and may create barriers for participation. Requirements, therefore, must be realistic.

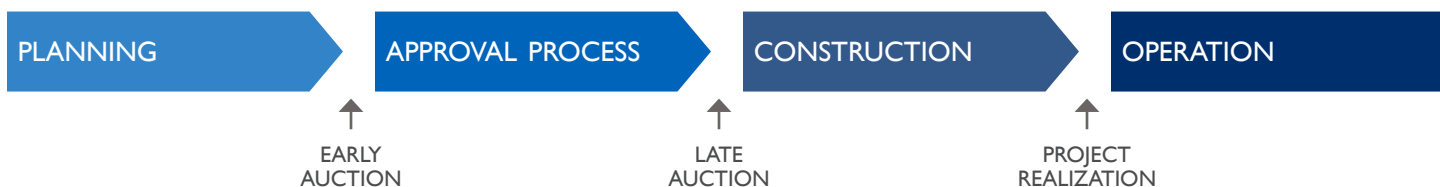


BOX 1. TECHNICAL REQUIREMENTS IMPLEMENTED IN BRAZILIAN WIND AUCTIONS SINCE 2013

In the first three wind auctions in Brazil, 70 percent of wind capacity contracted was delayed by more than one year, primarily due to issues with the construction of transmission lines and substations.¹ To improve the coordination of the country's transmission and generation capacity additions and avoid the related delays in project realization, Brazil introduced more stringent prequalification requirements in 2013, including preliminary grid access authorizations, which bidders had to provide before entering the auction.

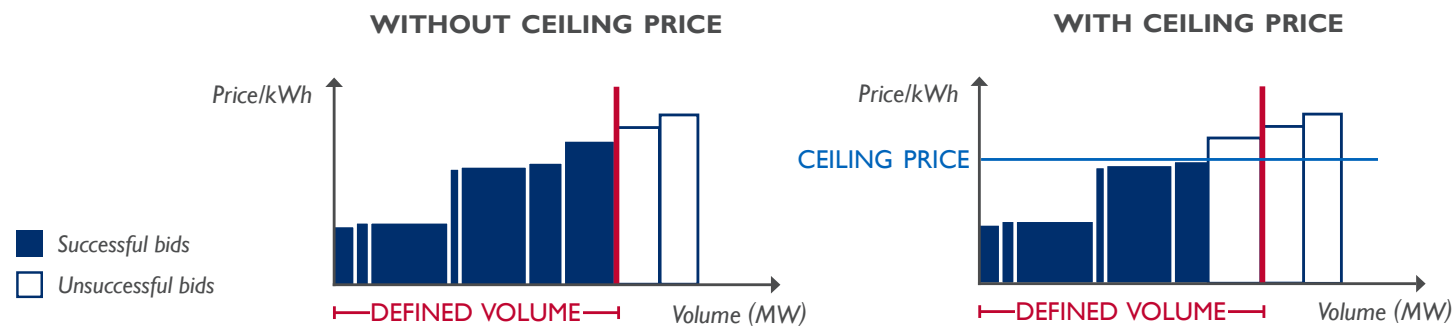
In many countries, the government selects and pre-develops sites to reduce the risk of sunk costs. For example, Zambia conducted site-specific solar PV auctions in 2016 for two projects near Lusaka under the World Bank/ IFC Scaling Solar program. The land for the two sites was allocated by the Zambian Development Agency and leased by the state-owned Industrial Development Corporation, which also led the permitting and site inspection process and provided the sites' substation and transmission infrastructure.²

Figure 1. Auction timing within the project development process (simplified)



AUCTION DESIGN: PREQUALIFICATION REQUIREMENTS AND CEILING PRICES

Figure 2. Illustration of ceiling prices



Bidder qualification requirements ensure that bidding companies have sufficient financial or technical capacity.

Bidder qualification requirements refer to the documentation that must be provided by the company intending to participate in the auction. This documentation provides evidence that the bidder has sufficient capacity to develop the project.

By pre-selecting bidders who meet the technical and financial requirements, submitted bids are reduced to only the most promising ones. Bidder qualification requirements include legal requirements, proof of financial health, agreements and partnerships documenting third-party involvement in the project, and past project experiences with references.

Overly strict requirements can limit competition by creating participation barriers,

especially for smaller and less-experienced companies. For example, Morocco introduced a prequalification stage requiring participants to comply with stringent technical, financial, and legal criteria. In the 2011 solar auction for the first phase of the Ouarzazate project, only four of 19 bids reached the second stage.³

While this may have limited the number of potential competitors, average bid prices across auction rounds were competitive.

LIMITING EXCESSIVE PRODUCER RENT RISK IN CASES OF LOW COMPETITION

A ceiling price is a maximum price above which bids will not be accepted. Figure 2 illustrates this effect. **Setting adequate ceiling prices can avoid excessive remuneration levels paid to projects in case of uncertain or limited competition in the auction or collusive behavior between bidders.**

Disclosing the ceiling price to bidders in advance prevents otherwise qualifying projects from being rejected simply because bidders did not know the ceiling price. **However, disclosing ceiling prices can weaken the competitive price discovery effect of the auction if bidders orient their bids toward the ceiling price.**

In South Africa's first auction round in 2011, ceiling prices were set at the level of the previous feed-in tariff, and auctioned volumes exceeded what the renewable energy market could deliver. Aware of

limited competition, companies submitted bids at or near the price ceiling. In following rounds, auction volumes were reduced, resulting in higher competition and lower prices.

Ceiling prices are often set in line with the levelized cost of energy (LCOE), which is an assessment of generation costs, plus a producer rent. The LCOE-based ceiling price should be calculated from the perspective of a typical investor, taking regulatory framework conditions such as taxes and financing conditions as well as transaction costs into account. Administrative calculations should be validated with market parties.

BOX 2. DETERMINATION OF CEILING PRICES IN THE NETHERLANDS

The Netherlands organizes a consultation process and process of revising LCOE-based ceiling prices by external reviewers. At the beginning of each year, ceiling prices are reviewed and adjusted by the Ministry of Economy. The underlying LCOE are calculated yearly for each technology category by ECN, the largest energy research center in the country and DNV KEMA, a private sector company. Usually, the Ministry directly adopts the recommendations given by ECN without any additional parliamentary process.⁴

¹<http://documents.worldbank.org/curated/en/842071468020372456/pdf/WPS7062.pdf>; ²<https://www.gsb.uct.ac.za/files/DeriskingSolarAuctionsInSubSaharanAfrica.pdf>; ³https://www.esmap.org/sites/default/files/esmap-files/ESMAP_IFC_RE_Training_Aries_Ingenieria_Sistemas_Perez.pdf; ⁴https://ec.europa.eu/energy/sites/ener/files/documents/2014_design_features_of_support_schemes.pdf.