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ECONOMIC CONSULTING

Project Profile

Assistance to Acquirente Unico in the Definition of Products and in the Design of the Auction for Contracts for Differences (CfDs) in 2005.

Background

The Acquirente Unico (AU), a joint stock company fully owned by the Italian transmission operator (GRTN), has been responsible for supplying energy to non-eligible consumers in Italy since 1 January 2004.[1]

Its mission is to guarantee supply at competitive prices to residential customers that cannot directly access the market, and to potentially eligible customers (mainly commercial customers and small-medium companies) that do not choose a competitive supplier.

AU's main activity is to purchase electricity and resell it to distributors for supply to non-eligible customers according to provisions set by the Regulator. In doing so, AU has to ensure that its profit/loss account is in balance.

Energy supplied by AU to non-eligible customers is mainly provided through purchases on the power exchange. According to current regulation, AU has to cover itself from both price and quantity risks on those quantities purchased on the electricity market.[2]

Within its electricity purchasing strategy for 2005, the AU asked NERA to assist in the development an

NERA's Activities

NERA's project for AU started in November 2004 and led to the procurement of contracts at the end of December. The task required the full time involvement of NERA's economists in Rome, London, New York and Washington D.C. for six weeks. NERA assisted AU in the following activities:

- Definition of products to be purchased
- Design and implementation of the auction procedures

Products Definition

The identified products are one way differential contracts on 25 MW capacity bands, each band belonging to one of the five different products called "Coal", "Gas1", Oil", "Gas2" and "Peak".[3] Each contract assigns the right to receive a payment from AU consisting of a fixed annual premium (€/MW-year) that is paid monthly. Each contract also specifies a strike price stated in (€/MWH). A payment from the seller to the AU is made every time the market price is above the strike price. The payment is equal to the difference between the market price and the strike price in each hour times the 25 MW size of the contract.

Each differential contract, except for the "Peak" one, includes the option to extend the contract to 2006 and eventually to 2007 for a progressively reduced premium and quantity.

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Design and Implementation of the Auction

We chose a descending clock auction, with a starting offer phase (during which bidders faced a predetermined strike price, and expressed for each product a quantity offer given a premium set by the AU) and an improving offer phase on those contracts with excess of supply. The ability of bidders to switch their offer among products during the improving offer phase allowed them to reveal their relative values of the contracts.

The outcomes of the starting offer phase were an excess of supply for the "Coal" and "Gas1" products, a balance for the "Oil" product and an excess of demand for the "Gas2" and "Peak" products.

Information obtained during this process induced the AU to not assign any contract in this initial phase and instead to organise another round on the basis of a modified initial premium for those products with excess of supply (lower premium) and excess of demand (higher premium). Bidders submitted sealed bid offers for 15.800 MW, which were assigned using a pay-as-bid mechanism. A residual quantity of 925 MW was assigned the following week.

Results

In December, AU signed differential contracts for 2005 for 16.725 MW. These contracts were for innovative products in the Italian market. The Energy Authority (AEEG) has announced that, as a consequence of AU's buying strategy, the electricity price for non-eligible customers has increased by 1.2% in nominal terms, taking into consideration prices at January 2004 and January 2005. Given 2% inflation, this increase results in a tariff reduction in real terms around 1%.

Notes

1 Before the AU came into operation, supply to non-eligible customers was carried out by Enel, the former integrated monopolist.

2 AU can satisfy its demand with bilateral physical contracts, imports, CIP6 electricity purchases, and purchases on the electricity market. Purchases on the electricity market require the conclusion of contracts to cover from both price and quantity risks. Decree of the Ministry of Productive Activities, 19th December 2003.

3 The determination of these five products and related capacities was made on the basis of the plant's type and of a NERA risk optimisation model. Gas1 and Gas2 refer to two technologies using gas as fuel but with different efficiency rates. Peak is a residual category of plants that produce at peak.

Expert Involved

Eugene Meehan, Senior Vice President
Washington DC, USA

Mr Meehan specialises in advising electric and gas utility clients in the areas of strategic planning, regulatory strategy, and financial and economic analysis. Recent projects include: advice on the development of an auction for the procurement of standard offer services; testimony concerning the valuation of a generating plant in the context of a competitive generation market; and the development of an integrated regulatory strategy to achieve a transition to competition, mitigate strandable costs, and review capital investment policies utility industry in the context of a changing structure for the electric.

About NERA

NERA Economic Consulting (**www.nera.com**) is a global firm of experts dedicated to applying economic, finance, and quantitative principles to complex business and legal challenges. For over half a century, NERA's economists have been creating strategies, studies, reports, expert testimony, and policy recommendations for government authorities and the world's leading law firms and corporations. With its main office in New York City, NERA serves clients from more than 20 offices across North America, Europe, and Asia Pacific.

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