It Matters Which Way You Slice It: Risk Management for the 2005 Procurement Auction of Italy's Acquirente Unico

As the single buyer in Italy for retail consumers not eligible for competitive supply as well as eligible customers who do not choose a competitive suppler, the Acquirente Unico purchases roughly half of Italy's electricity. Here are some of the key risk management considerations that were involved in its 2005 procurement.

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I. Introduction

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 (captive) consumers in Italy since Jan. 1, 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 to medium-size companies) that do not choose a competitive supplier.[2] The 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. Energy supplied by the AU to non-eligible customers is mainly provided through purchases on the spot market.

There are some 36 million consumers in the captive market, with a net annual consumption of 170 million MWh in 2004. (In 2004 the Acquirente Unico purchased about 62 million

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MWh on the spot market, from April to December.) In 2005, consumption was expected to come to 166 million MWh, representing 50 percent of total electricity consumption in Italy. The AU is the largest operator in the Italian Power Exchange (IPEX), where about two-thirds of total Italian electricity consumption is traded. In order to provide electricity to captive customers, distribution companies must purchase electricity only via the AU, according to regulatory directives. The AU's selling prices are defined on a monthly basis, taking into account the average purchasing cost, including hedging costs, in order to assure the economic stability of the AU.

Eligible customers supplied by the AU can switch to a competitive supplier upon very short notice. Migration is not easily predictable, so quantity risk is an important issue. Furthermore, the Italian electricity market is still strongly concentrated on the supply side.[3] Market power is one of the main problems faced by the Italian Regulator and as a consequence hourly prices are not expected to be very volatile, but are steadily higher than marginal costs. Because of the volumes involved, hedging contracts between the AU and the largest producers are expected to influence prices on the IPEX.

According to current regulation, the AU has to cover itself from both price and quantity risks for those quantities purchased on the electricity market.[4] Within its electricity purchasing strategy for 2005, the AU asked NERA to assist in the development and implementation of mechanisms for risk-covering.

The purpose of this article is to summarize some of the risk management considerations that were used as part of the 2005 purchasing strategy. The article will focus on that, rather than providing a detailed description of the process or a discussion of the overall economic, regulatory,

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and market concentration situation in Italy.

In summary, the strategy developed was to purchase five types of one-way contracts for differences, each with a different strike price formula. The MW quantity of each type to purchase was a key consideration and a method based on multiple regression was used to determine contract quantities so as to minimize non-fuel uncertainty in the overall AU tariff. Section II of this article summarizes the decision to use one-way CfDs and Section III summarizes the decisions as to the number of CfDs, and the strike prices and quantities of each CfD.

The outcome of the process described was an auction and subsequent negotiation for contracts with potential renewal through 2007. These contracts apply to purchases of electricity worth approximately Euro 20 billion.

II. The Decision to Use One-Way CfDs

We considered three options before concluding that a one-way CfD was the most appropriate contract form for the AU. The main consideration in reaching this conclusion was an analysis of the risk characteristics of each option. We applied the rationale that it is important for risk to be allocated to the extent necessary to meet the AU's objectives, but that it is possible the contracts could be structured in such a way that risk is increased with no associated benefits. Our goal was that the chosen contract structure should avoid these ''bad risks''; it should allow the overall AU contract portfolio to be structured to allow for an efficient overall level of risk for the AU. Our guiding principle was that, generally, to the extent that the market for managing risk is competitive and sellers have the expertise to manage risk and the ability to employ some hedging techniques, it is efficient to have sellers bear these risks. To the extent that the risks are difficult to manage or diversify, the price that sellers demand to bear such risks may be high and it may be more

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