

The Bosch-SPX Merger and a Requirement to License Standard Essential Patents

Robert D. Stoner



Principal Robert Stoner has consulted in a number of instances about matters concerning standards-setting organizations and standard-essential patents.

The Federal Trade Commission (FTC) recently secured a consent decree resolving anti-trust concerns in the acquisition by Robert Bosch GmbH (“Bosch”) of SPX Services. The alleged relevant market was the manufacture and sale of equipment used to recharge automobile air conditioning systems (ACRRR devices), where the combined firm was alleged to have a 90% share. Besides terms typical in a merger-related consent decree, particularly a requirement for a divestiture that included a royalty-free license of standard-essential patents needed to produce ACRRR devices, the decree required Bosch to license those same patents on a fair, reasonable and non-discriminatory (FRAND) basis to all comers. The requirement stemmed from the FTC’s discovery, during the merger investigation, of evidence that Bosch had reneged on a commitment to license standard-essential patents. The FTC asserted that this conduct, which was unrelated to the merger, was an unfair method of competition under Section 5 of the FTC Act. Some have questioned the FTC’s inclusion of a provision to alleviate Section 5 concerns in a Section 7-based merger remedy.

The consent decree in this case may seem understandable given the FTC’s long history of concerns with misuse of the standard setting process. Such concerns date back to the 1996 Dell case and also played a role in the 2003 Unocal decision, the 2006 Rambus case, and the 2008 N-Data case. Moreover, subsequent to the Bosch-SPX consent decree, the FTC in January 2013 proposed a consent agreement with Google-Motorola Mobility that was also based on a Section 5 theory of unfair refusals to license standard-essential patents. The proposed consent required Google to offer a FRAND license to any company that wanted to license Google’s standard-essential patents and compelled Google to withdraw any claims for injunctive relief involving such patents.

Nonetheless, the FTC’s Bosch-SPX consent could be seen as overreaching because a violation of Section 5 with respect to the Bosch patents was never established. The existence of that violation arguably could more properly have been litigated in a separate proceeding. Including the FRAND license in the consent agreement, however, may have had the same ultimate result as a separate proceeding and used fewer FTC (and Bosch) resources. Only the FTC and the merging parties know what the evidence discovered by the FTC indicates concerning whether the FTC could have prevailed in such a proceeding. Bosch’s agreement to the decree indicates either that Bosch believed the FTC likely would have won or that Bosch was not overly concerned with the FRAND commitment.

Also In This Issue

The Relationship between Spot and Forward Electric Power Prices

John R. Morris and Su Sun describe how the relationship between spot and forward electric power prices can shape appropriate public policy for restructured electricity markets. For example, that relationship will determine how electricity costs rise with the length of a procurement contract and thus will be important to state regulators determining the duration of those contracts. The relationship between spot prices and forward prices also is important in considering the effects of mergers and acquisitions. They discuss research on the volatility of spot prices, the price premium on forward sales, and the statistical relationship between spot and forward prices.

Estimating Damages under the False Claims Act

Richard T. Shin describes difficulties encountered in estimating damages in False Claims Act (FCA) cases involving government procurement. FCA cases often involve claims that a supplier has violated a contractual requirement that any price reductions given to “most-favored customers” be extended to the government purchasers. Estimating damages in such cases involves three steps: (1) calculating the amount paid by the government for purchases under the contract, (2) estimating the amount the government would have paid but for the false claim, and (3) taking the difference to calculate the overpayment. Each of these steps raises a number of issues concerning processing data and reaching the most accurate estimates possible.

The Relationship between Spot and Forward Electric Power Prices

John R. Morris and Su Sun

The relationship between spot and forward electric power prices can shape appropriate public policy for restructured electricity markets. For example, states with competitive electric retail markets in the United States often require regulated utilities to provide Standing Offer Service (SOS) or act as Providers of Last Resort (POLR), and the utilities often must procure the capacity and energy for these products through auctions administered by the regulators. State regulators must decide the duration of the procurement contracts because longer contracts provide more price stability at the cost of higher prices. The relationship between spot and forward prices will determine how the cost of electricity rises with the length of the contract.

The relationship between spot prices and forward prices also comes up in the context of mergers and acquisitions. Reviewing agencies may be concerned that a merged entity would reduce its forward sales thereby increasing its spot sales and thus its incentive to exercise market power in the spot market. But when the forward premium is large relative to the ability to exercise market power, and spot prices do not affect forward prices, the merger is unlikely to affect the merging parties' forward sales.

Electric generation companies have significant incentives to sell forward and not rely on spot sales for a majority of their income. Forward prices for monthly futures contracts traded daily on the New York Mercantile Exchange reveal significant price premiums relative to the actual future realized spot prices, especially for contracts longer than one year into the future. Thus, generation companies often sell forward to increase their profits by capturing these premiums. These firms will also want to sell forward to reduce the variability of earnings. Our studies of the daily real-time peak spot prices at the PJM Western Hub, which are from trades on the Intercontinental Exchange, show substantial price volatility. Other studies of electric energy prices also consistently show that selling most output forward well in advance of delivery minimizes the price and earnings variability of generation companies. Because both



EI Principal John R. Morris leads the energy practice at Economists Incorporated. Su Sun is a Senior Economist at EI. They have examined spot/forward price relationships for electric energy in several matters and presented a paper on these relationships at the 87th Western Economic Association Annual Meeting in June 2012.

“electricity generators are very unlikely to reduce forward sales to increase the incentive to exercise market power in the spot market.”

the volatility of spot prices and the significant forward sales price premium provide strong incentives to sell forward, electricity generators are very unlikely to reduce forward sales to increase the incentive to exercise market power in the spot market.

Another question when assessing mergers is whether electric generation companies would have an incentive to raise prices for spot transactions as a way of increasing prices in their forward transactions. Standard arbitrage theory indicates that the seller has the choice to sell a commodity today and receive the spot price, or sell it forward to be delivered

on a future date and receive the forward price determined today. From the buyer's perspective, the latter is a buy-and-hold strategy. The arbitrage equation implies that there will be a relationship between spot and forward prices that will ensure that both strategies are equally profitable after taking into account of the risks, because otherwise sellers would switch between spot and forward sales. Thus, an attempt to raise spot prices, if successful, may affect forward prices as well.

Because electricity is largely non-storable, however, this arbitrage equation may not hold well for electricity. A first look at spot and forward electricity prices may reveal a relationship between the spot price and the forward price in electricity. This relationship is small, and much weaker than the relationship observed between the spot price and the

Estimating Damages under the False Claims Act

Richard T. Shin

The False Claims Act (FCA) imposes liability on any person or corporation that “knowingly presents or causes to be presented a false or fraudulent claim for payment” to the federal government. The FCA allows both fines and treble damages. Litigation under the FCA can have serious economic consequences. According to the Justice Department, FCA enforcement resulted in \$4.9 billion in settlements and civil judgments in fiscal year 2012.

Cases involving alleged false claims in government procurement are an important category of FCA litigation; they accounted for \$427 million in settlements and civil judgments in fiscal year 2012. Perhaps the largest FCA procurement settlement involved Oracle Corp., the software company. The General Services Administration (GSA) negotiated a procurement contract on behalf of several federal government agencies. In the negotiated contract with GSA, Oracle agreed to disclose discounts it made to commercial customers and provide these discounts to the government. The Department of Justice alleged that Oracle “overcharged the government by failing to disclose substantially lower prices offered to its commercial customers.” Without admitting liability, Oracle settled the case in 2011 for \$199.5 million.

Estimating damages in cases that concern false claims in federal government procurement of products and services through GSA contracts typically involves calculating the amount of the overpayment. A number of difficulties may be encountered when performing that calculation. Specific modeling tools, however, can aid in that calculation, and in reaching settlements or assessing litigation risks.

GSA requires a most-favored customer (MFC) and a price reduction clause (PRC) in most of its major procurement contracts or schedules. Each GSA contract is required to have a section titled “Price Reductions.” The contracting officer and the supplier must agree on the customer (or category of customers) that will be identified as most-favored for purposes of the contract. The contract establishes a relationship between the prices and discounts charged the most-favored customers and the prices and discounts charged the govern-



Richard Shin is a Senior Vice President at Economists Inc., and has an extensive background in analyzing competitive effects of mergers in regulatory proceedings and estimating economic damages in complex litigation. He was retained as a testifying expert in the qui tam action against Oracle to provide damage estimates.

ment. If the price falls to the most-favored customer, it must also fall to the government.

FCA cases related to GSA contracts often involve claims that the supplier has increased its discounts to most-favored customers without telling the GSA, thus violating the PRC. That was the claim in the Oracle case. Estimating damages in such cases involves (1) calculating the total amount paid by the government for goods and services procured under the GSA contract, (2) estimating the total amount the government would have paid but for the false claim, and (3) taking the difference to calculate the overpayment. Performing these tasks might require overcoming a number of obstacles.

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Calculating the amount paid by the government under a particular contract depends on invoice data. Generally, one would identify all invoices for sales made under the contract. The total amount paid on all these invoices less any credits would be the total dollar value of government purchases. It may be difficult to identify sales under a particular GSA contract or schedule if invoices do not

reference GSA contracts or schedules. In those situations, customer name, billed entity, or delivered entity might be used to filter government sales. In using names to identify relevant sales, care must be taken to see whether names are represented in more than one way in the data, or whether any listed purchasers are in fact subcontractors purchasing for the government. For each purchase of a particular product, one would need list price, discount amount in percentage or dollars, final purchase price, quantity, and total payment. Final purchase price and total payment may be calculated from the other information, but it is important to check if the calculated prices and payments match the values present in the data.

Estimating the amount the government should have been

Spot and Forward Electric Power

forward price for natural gas, but it is statistically significant. Such a relationship may be observed for electricity because although electricity cannot be stored, the fuels used in generating electricity are stored. During peak hours in the eastern United States, the most common fuel used in marginal generation is natural gas, and natural gas is stored.

Thus, the apparent arbitrage relationship between spot and forward prices for electricity might be spurious, an appearance created by a strong spot/forward price relationship in the natural gas market. To control for the impact from the arbitrage in the natural gas market, we estimated the relationship between the spot electric price and the spot natural gas price and between the forward electric price and the forward natural gas price. When these estimated effects between the natural gas prices and the electricity prices are excluded, the spot-forward relationship in the electricity market is no longer statistically significant. This result

indicates that an electric generator's raising spot electricity prices would be unlikely to raise forward prices.

In summary, the empirical literature reveals significant price premiums for electricity forward sales, electric generators have a strong incentive to sell most of their expected output as forward sales, and the daily spot prices of electricity do not affect forward prices of electricity. These results have implications for both electricity generators and policy makers. For generators, the results suggest a strategy of selling forward, especially more than one year in advance, to take advantage of the available forward premiums. For state regulators, the results suggest that having one-year terms for electric power procurement may be preferable to longer terms. One-year terms provide price certainty for a year out while avoiding paying the large price premiums on contracts beyond one year. The results also indicate that agencies reviewing mergers should have little concern that raising electricity daily spot prices for a short period would have any material effect on forward prices.

Estimating Damages

billed requires several steps. First, detailed information on actual products purchased by the government has to be identified. A detailed description of the product and the identity of the purchasing agency are also needed. Often the same item may be sold with different discounts to different agencies purchasing under the same GSA contract. Even if the contract applies a uniform discount rate to all government sales, the detailed information would be useful if the price reduction adjustments vary by product or over time.

Second, detailed information on individual sales to most-favored customers is required to identify the relevant discounts and prices to apply to government sales. For the relevant time period of the GSA contract, the corresponding comparable sales to most-favored customers are reviewed to find the lowest discounted price or highest discount rate for each of the products purchased by the government.

Third, once pricing information and product information are collected, the exact terms of the contract are used to identify price reductions for estimating damages. For example, if a particular set of products were sold to most-favored customers below the price offered to the government, then every government purchase of those products would be identified and the amount that would have been paid at the more favorable price would be calculated. In some cases, products have a different PRC discount for different time

periods, which complicates the analysis.

In cases where the GSA contract involves a large number of products and services with a complex discount structure based on the historical discounts to MFCs, damage estimation may be quite difficult. Problems with invoice data often complicate the estimation process. For example, free samples in exchange for large orders, bundled products, non-meaningful product differentiation, free shipping, and discounts not tied to a particular product may make it difficult to calculate the appropriate discount that should have applied to the government purchases. Problems such as multiple product numbers or multiple names for the same product may make it difficult to determine the products that a particular discount should apply to.

Ultimately, the data would be used to calculate a properly discounted price under the terms of the PRC. If that price is lower than the actual price paid by government, then the difference in price is multiplied by the quantity purchased at that price, and the result is included in the overpayment.

This type of damage calculation may be used to facilitate settlement. For example, negotiators may want to know the estimated damages under different assumptions about the PRC discounts. Damage models that estimate the discounts and corresponding damages under various assumptions can be created and the results can indicate the possible consequences of litigation.

EI News and Notes

Cameco Acquires NUKEM

Cameco Corporation, one of the world's largest uranium producers, acquired the NUKEM Group, one of the world's leading traders and brokers of nuclear fuel products and services. EI Principal Philip B. Nelson assisted attorneys at the law firm of Akin Gump, which represented Cameco, in gaining clearance of this acquisition from antitrust authorities. He helped in preparing filings before the U.S. Department of Justice Antitrust Division and the Ministry of Commerce of the People's Republic of China. Dr. Nelson was assisted by EI Vice President Henry B. McFarland and EI Senior Economist Su Sun.

EI Listed Among 20 Top Economics Consulting Firms

Economists Incorporated was listed in Global Competition Review's survey of the world's 20 leading consulting firms in competition economics. The survey cited EI's work in price fixing cases involving liquid crystal displays (LCDs), polyurethane foam and tire tread rubber. It also noted EI's work involving mergers in a number of industries, including healthcare and energy.

NRG Energy Merged with GenOn Energy

EI Principal John R. Morris led a team at EI that assisted NRG Energy, Inc. in obtaining approvals to merge with GenOn Energy. NRG and GenOn both owned generation fleets throughout the United States. The parties obtained clearances from the U.S. Department of Justice, the Federal Energy Regulatory Commission, and the New York Public Service Commission. No generation unit divestitures were required for closing the merger. EI worked closely with Skadden, Arps, Meagher & Flom, Kirkland and Ellis, and Nixon Peabody on the matter.

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