
Alan Roark serves as Consultant at Kema Inc., a consulting firm in Devon, Pennsylvania. He has more than 14 years of experience in identifying, measuring, and managing wholesale energy portfolios and in forecasting wholesale energy market prices and impacts. Prior to joining KEMA, he was responsible for risk management, portfolio measurements, and compliance associated with the operation of 48,000 MW of capacity and fuel requirements at Exelon's Power Team Division. Mr. Roark has designed and implemented risk management programs for over 30 power, gas, and oil clients and has worked as a senior economist with WEFA, providing energy consulting for various international clients. He can be contacted by email at aroark@kemaconsulting.com.

John M. Chevrette is a Vice President with KEMA who is based in Austin, Texas. As part of the management consulting team, Mr. Chevrette focuses primarily on asset management service areas, including retail marketing and operations, operational leadership in generation, T&D businesses, integration of IT and business strategy, and design, and development and realization of large transformational outsourcing and BPO engagements. Prior to joining KEMA, Mr. Chevrette served as Senior Managing Director in the energy practice at Navigant Consulting Inc. He also was a Vice President and partner in Computer Sciences Corporation's Energy Industry Group. He can be contacted via email at jchevrette@kemaconsulting.com.

Billing and Settlement: Meeting the Challenges of a Wholesale Electricity Market

The new wholesale model requires unbundling of services including energy, capacity, scheduling, coordination, ancillary services, and transmission reservations. Each of these unbundled services adds complexity and also requires much more robust meter reading and billing capabilities. The more market players involved, the more complex the challenge.

Alan Roark and John M. Chevrette

For the third year in a row, recent surveys show that North American energy utilities are spending less on information technology (IT) than in the previous year. The slowdown in electricity deregulation; ambiguities over the future outcome of the Energy Policy Act and Standard Market Design; and the continuing fear, uncertainty, and doubt engendered by the Enron debacle are pressuring utilities to hold costs to a minimum. But according to META Group, even though fewer total dollars are being spent, funding allocated

today is being channeled into five functional areas, one of which is energy management—namely, systems and applications for load forecasting and complex billing and settlement.

As of this writing in early December, the Dow Jones Utility Index for share prices was flat again for the year. In addition, wholesale prices remained flat, reducing revenues for wholesale merchants but lowering costs for energy providers. Even though energy providers' costs have trended lower, the uncertainty of deregulation has created a

negative impact on share price. In the face of cost cutting and lower revenues, the prudent manager must focus upon strengthening cash flow. Cash flow improves through stronger billing and settlements processes.

As the economy leaps forward so will momentum for realizing competitive restructuring initiatives. The META Group predicts that overall IT spending will begin to increase in the next few years, perhaps as early as 2004. As spending increases, one key focus area will be more effective approaches to billing and settlement.

I. Why the Focus on Billing and Settlement?

As states, countries and regions that have already opened their markets to wholesale competition will attest, the sweeping changes now facing the U.S. electricity market through pending legislation raise numerous issues in the already challenging realm of billing and settlement.

Experience has shown that one key component of converting to a competitive wholesale energy market centers around developing a sound approach to settlement processes, with all of its risks and responsibilities. The way in which market participants manage settlements can dramatically impact the profitability and success of their respective businesses.

Similarly, in a competitive wholesale market, the need to quickly produce accurate bills

dictates that market players revamp their strategic thinking relative to what has become a critical business process. In a competitive market, effective billing is at the heart of both independent system operator (ISO) and market participant activities, not only in generating revenue, but also in serving customers effectively and in the ability to help prevent and counter billing disputes.

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A. Form and type of contracting are changing

The sheer volume and complexity of transactions flowing between the many players in a competitive market pose tremendous challenges in billing and settlement, as does ensuring the timeliness and accuracy of information. In a wholesale market, what used to be one-on-one relationships between customers and their suppliers are replaced by transaction-intensive business processes involving numerous participants. Wholesale contracts in a regulated environment tended to be geared towards

meeting the needs of the customer and supplier, and hence were usually complex arrangements. These larger, multi-year contracts included escalation clauses, specific metering requirements, and complex billing clauses that normally were tracked and settled manually, outside of traditional billing systems. While these complex agreements remain in place, a bewildering array of financially settled or power pool arrangements are beginning to take their place. With the unbundling of services, utilities also face an additional challenge to align settlement and billing with the unbundled services. New settlement processes are required.

B. Sources for billing determinants differ

In an open market, settlement information must be gathered and analyzed from multiple sources. While in the past there was one source for metering data, now data may come from many sources, all owned and managed by different market players. These sources include generation meters, customer meters, transmission/distribution interface meters, and settlement agent records.

The data must be gathered, analyzed, and transmitted to billing systems, and since meter reading typically includes inaccuracies that must be reconciled after the fact, the difficulties in assuring accurate data are further compounded. The flow of funds is now broken down into multiple parts and numerous billing and

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