The Fintech Revolution is Coming to Wholesale Energy Settlement

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You may be surprised to learn that every week billions of dollars in the oil and gas industry are settled using a manual process that relies on paper invoices, spreadsheets, PDFs and emails. But that's today's reality for many energy settlement departments across the globe.

Settlement departments are the often-unheralded engines of companies' financial operations. The physical and financial energy transactions that keep oil and gas flowing worldwide produce mountains of financial data that end up as invoices on the desks of settlement analysts. These analysts then engage in a time-intensive and date-critical effort to complete tie-outs with multiple counterparties across the energy supply chain and meet critical payment deadlines.

Since individual invoices often total tens of millions of dollars, a settlement department's work is vitally important for corporate cash flow, credit exposure and risk management. Given the complexity of the energy supply chain, there are frequent discrepancies in invoices. For example, a natural gas producer may seek to produce 30,000 MMBtu per day to meet customer orders, but may not hit that exact volume. As a result, the company's settlement department then needs to communicate with their counterparties to identify discrepancies, confirm agreeable resolutions and complete transactions to meet payment deadlines. Settlement reconciliation is often a long and involved process that delays payment and greatly increases a company's credit exposure.

When energy prices were soaring, it was easier to ignore inefficiencies in the settlement department and simply fill in gaps with more manpower. However, with companies relentlessly searching for operational cost savings everywhere they can find them, financial leaders are taking a hard look at their business processes.

Given the amount of money flowing through the settlement department and the costs and the risks generated by inefficient processes, the energy industry needs to make a change to cut down on settlement exposure and reduce the amount of capital needed for risk management. This change would in turn allow company leaders to apply the savings to other cash-starved areas of their businesses.

Companies also need efficient settlement operations to ensure accuracy and maintain cash flow. However, industry trends have put new strains on settlement departments and analysts, and this, combined with the stubborn persistence of manual processes in the industry, can negatively impact companies' bottom lines.

Fortunately for oil and gas companies, the fintech revolution that has transformed other industries is beginning to make inroads in the energy sector, bringing automation and efficiency gains to help settlement departments address their most pressing challenges.

Data explosion drives settlement challenges.

The volume of data has exploded in the energy industry with the future looking more data intensive than anyone could have planned for even a short while ago. Companies continue to create new products in their relentless drive to increase the number of new clients and grow their bottom lines. As a result, energy companies' contract, credit and settlement departments face new pressure to quickly identify exceptions and reconcile ever-larger volumes of transactions with rising numbers of counterparties. And individual analysts are frequently charged with handling an expanding list of counterparties across multiple regions with a growing number of customized products.

Compounding the challenge, invoices often arrive in different formats, with data presented in varying ways, adding frustrating complexity to an already difficult manual process. Further, as the number of counterparties and resultant financial data increases, the number of exceptions settlement analysts have to identify and resolve also increases.

In the end, settlement analysts, who were initially hired to do everything from price discovery, cash-flow reporting, counterparty management and data analysis, focus almost entirely on identifying exceptions on invoices and working to complete transactions with counterparties under tight time constraints.

For oil and gas companies, these inefficient processes are crowding out potential high-value work from key employees. And as the settlement department faces a growing pool of counterparties and transactions, many analysts are inundated with work and reliant on manual processes that pose their own set of risks.

Manual processes and the risks of tribal knowledge.

Throughout the energy supply chain, the industry remains hindered by outdated manual processes. For example, in many cases, truck tickets for retail products are tracked via paper forms or spreadsheets. Further, the nominations process for scheduling supply and demand on natural gas pipelines is often not automated. And when it comes to energy settlements, analysts usually have to sort through large amounts of spreadsheets and piles of paperwork, along with PDFs and emails, to identify exceptions before they can even get to the point of working with counterparties to clear up any discrepancies.

Further, settlement analysts frequently have to pull data off of multiple source systems or files. The information from energy trading source systems (e.g., energy trading and risk management systems) then gets transferred into accounting systems (e.g., enterprise resource planning systems). With limited communications between the trading systems and the accounting systems, the process relies almost entirely on manual effort, which raises the chance of errors and therefore elevates financial risk.
An additional challenge related to manual processes is the reliance on tribal knowledge. Veteran members of a settlement team may have all the knowledge necessary to pull data from various source systems and input them into the correct internal documents. However, much of the knowledge required to manage this process resides solely with those individuals, making it difficult for management to spread work volumes efficiently across the department.

Fintech offers reprieve from data siege.

Financial technology encompasses everything from digital payment applications that allow individuals to directly exchange money to technology that enables more efficient international money transfers. At the core of fintech is an effort to cut operational costs and improve efficiency by optimizing data management and communication processes. Fintech innovations have already begun to revolutionize the financial services industry by making the process of financial transactions more seamless, resulting in significant cost savings.

In the energy industry, services that automate key back-office functions are beginning to emerge. For example, our firm has automated key parts of the energy settlement process, allowing analysts to eliminate the time spent identifying exceptions so they can focus solely on the important work of collaborating with counterparties to ensure timely payment.

Overall, there are three keys that will mark the most impactful energy fintech innovations of the future.

Centralized energy data in the cloud.
The energy industry is awash in data from physical and financial transactions, pipeline statements, local distribution company invoices, and more. As a result, there is a pressing need for data consolidation across companies' operations. Centralized data offers company leaders a single version of the truth, which facilitates faster and more effective decision-making. The fintech platforms that enable data consolidation will rise above the competition.

Connectivity across the energy supply chain.
Translating disparate data into a common language can connect the energy supply chain more closely and allow seamless collaboration between counterparties. This data integration helps companies quickly identify the most crucial pieces of data in any given interaction with counterparties. The fintech innovations that enable data to flow more smoothly through the energy supply chain will be the game changers.

Cloud automation.
Cloud-based technologies can build on data centralization and enhanced connectivity to automate key activities within the energy supply chain. Automation in the cloud allows companies to do away with cumbersome manual processes while retaining tight control over their data. The cloud also allows companies to minimize overhead costs by eliminating the need to perform complex technology implementations and maintain hardware. The most impactful fintech solutions will leverage the many benefits of the cloud to move the industry toward automation.

The potential of fintech to improve energy companies' bottom lines is exciting. In the future, fintech payment services could enable companies to automatically process settlement transactions in real-time and transform the current monthly cash-flow cycle. In a new, fintech-enabled energy supply chain, settlements and payments could be completed daily (or even more frequently), improving risk management, reducing capital requirements and increasing credit availability while also lowering operational expenses for each company in the supply chain.

Today, new fintech services are revolutionizing key back-office functions for energy companies. It's important for oil and gas leaders to embrace fintech-powered efficiency gains in order to ease the current pressure on operations and realize a more prosperous future.

About the author

Jeff Wagner is founder and CEO of Aquilon Energy Services. He has more than 25 years of experience in technology innovation.

About Aquilon Energy Services, Inc.

A high-growth technology company, Aquilon Energy Services Inc. worked with the energy industry to launch the Energy Settlement Network®. ESN® is the new industry standard, enabling members to automate settlements with their counterparties in a secure, collaborative cloud solution—improving operational efficiency and increasing security.