The Sheppard Mullin Six

Blockchain in the Electricity Industry: Six Items to Consider

1. Blockchain technology and smart contracts could become major disrupters in the energy industry, by accelerating the automation of the electricity delivery transaction chain, contributing to more decentralized and efficient electricity markets.

2. A blockchain is a distributed electronic ledger for validating transactions and recording transaction data, such as energy transactions. Unlike traditional paper-based ledgers which include consecutive pages where each line records a transaction, a blockchain records and verifies transactions (*e.g.*, a sale of energy) electronically and automatically in the form of "blocks"; when the block is full, a new block is created. Multiple blocks are "chained" together to create the blockchain (*i.e.*, the ledger). Once recorded into a blockchain, that block/transaction cannot be changed.

3. An important feature of blockchain technology is smart contracts. Smart contracts are essentially self-executing code that implements the operational terms of an agreement between two or more parties (*e.g.*, Party A will sell electricity to Party B at a predetermined price). The code can exist across a distributed and decentralized blockchain network.

4. Blockchain and smart contracts can make electricity markets more decentralized, efficient, transparent and automated. For example, blockchain/smart contracts can be used to facilitate automated peer-to-peer trading of renewable energy certificates, electricity and other energy products. Blockchain and smart contracts could also help facilitate, monitor and verify electricity transactions associated with utility- or non-utility-scale energy resources and technologies, such as renewable intermittent resources, battery storage, distributed energy resources and electric vehicle charging stations.

5. Blockchain can also be used to automate, monitor and verify various components in a supply chain, as well as to verify and record transaction settlements. This can be particularly useful in organized wholesale electricity markets, which produce and monitor an enormous amount of data associated with the operation and maintenance of the bulk electric system.

6. Notwithstanding the promise of blockchain/smart contracts in electricity markets, (i) blockchain users must have a solid understanding of the applicable regulatory landscape before engaging in energy-related activities, (ii) state and federal rules will need to accommodate blockchain use in electricity markets and (iii) traditional utilities should have a keen understanding of opportunities and pitfalls related to blockchain.

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Jim is a partner in Sheppard, Mullin Richter & Hampton LLP's Intellectual Property Practice Group and Leader of the Blockchain Technology and Digital Assets Team and Social Media and Games Team. He is also Leader of the firm's Open Source Team. Jim advises clients of all sizes on key legal and business issues relating to the use of virtual goods, currency, social networks, virtual worlds, mirror worlds, open source user-generated content, IP protection and monetization and other blockchain-related technologies.

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Mark represents energy industry participants before federal and state agencies charged with jurisdiction over energy markets and their participants. His representations have focused on the rates, terms and conditions associated with gaining access to regulated energy transmission systems, transactions involving changes in ownership of jurisdictional assets and unbundling matters.

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Andrew represents energy companies in federal and state regulatory matters, particularly before the Federal Energy Regulatory Commission (FERC), state public utility commissions and appellate courts. He regularly counsels electric utilities, financial institutions, renewable energy developers, interstate natural gas pipeline companies and other industry participants on regulatory issues, including those related to electric transmission and generation development, organized wholesale market rules, compliance, standards of conduct, federal subsidy qualification criteria, offtake arrangements, jurisdiction and utility ratemaking.

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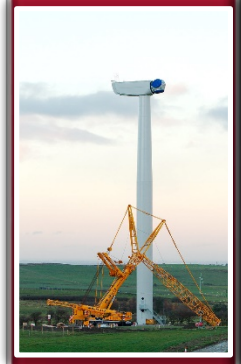
Bill represents participants in the natural gas, electric and oil/liquids industries before federal agencies, state utility commissions and appellate courts. Bill aids clients with rate-making issues involving cost of service, return on equity and rate design. He also advises and represents energy industry participants regarding tariff-related issues, natural gas pipeline certificates, DOE export and import authorizations, market-based rate authorizations, compliance with energy market rules and regulations, standards of conduct, interconnection issues and purchases and sales of energy facilities and companies

Blockchain Technology and Digital Assets Team

- Sheppard Mullin's Blockchain Technology and Digital Assets team helps clients develop innovative and comprehensive legal strategies to take advantage of what may be the most disruptive and transformative technology since the Internet. We focus on advising clients on how to meet their business objectives, without incurring unnecessary legal risk. Our team includes attorneys with diverse legal backgrounds who collectively understand the vast array of legal issues with and ramifications of blockchain technology and digital currencies.
- Several things distinguish Sheppard Mullin from other firms who claim to have experience and expertise in the arena of blockchain technology and digital assets:
  - We have attorneys who have been working with digital currencies for over a decade and are true thought leaders and pioneers in the field.
  - Many of Sheppard Mullin's largest and most highly-rated legal practice areas are relevant to providing top quality legal services to blockchain technology and digital assets clients.
  - Our attorneys have an in-depth understanding of the technology and business aspects of this field, which enables us to more effectively advise clients on the associated legal issues.
  - Many team members have specialized industry expertise which enhances our ability to provide strategic advice with industry-specific applications of this technology.
- Through this unique combination of attorney skills, our multidisciplinary Blockchain Technology and Digital Assets team has an unparalleled depth and breadth of expertise to effectively assist clients with any and all of the relevant legal issues. We represent companies – from startups to Fortune 100 – who are pioneering innovative technologies and business models in this space, as well as the companies using these technologies.

Energy, Infrastructure & Project Finance Team



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