

Blockchain in Utilities

2019 Electric Utility Insights



Utilities focused on business model innovation, enhancing customer value, and strengthening security are experimenting in the blockchain space. A recent survey by EPRI's Utility Blockchain Interest Group (UBIG) and Indigo Advisory Group details the intriguing perspectives of utilities and regional transmission operators (RTOs) on promising and nascent applications in the utility industry; protocols that govern and serve as the backbone of the technology; and the potential barriers, advantages and benefits of blockchain across the utility value chain.





15 utilities 1 regional transmission operator









Respondents noted additional research, proof-of-concept, or live applications, including peer-to-peer solar, natural gas settlement, customizable power hedging products for enterprise customers, SCADA protocols, low-carbon fuel standard, and asset management.



Average number of full-time equivalent (FTE) dedicated to blockchain



The amount of FTEs dedicated to blockchain initiatives by each surveyed utility and RTO

Barriers and Advantages







Utilities are actively testing blockchain across a number of protocols.

While survey results indicate substantial collaboration across the consortia, blockchain technology testing is typically driven from within the organization.

Energy Web Equadation	
Lifergy web Foundation	Bitcoin
New York Consortium	🔶 Ethereum
tility Blockchain Interest Group	Hyperledger
Energy Pleakshain Concertium	(U) EWF Origin
Energy Biockchain Consortium	

Protocols not surveyed, but identified by respondents as in-research/in-use, include Quorum, EOS, and Stellar. Respondents did not report experience with R3's Corda, Ripple Consensus Network, Symbiont Distributed Ledger, or lota.



Simply put, blockchain is a shared database with which we can trust the value proposition. Customers want more choice, transparency and control."

The following organization, under contract to the Electric Power Research Institute (EPRI), prepared this product:

Indigo Advisory Group

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3420 Hillview Avenue, Palo Alto, California 94304-1338 • PO Box 10412, Palo Alto, California 94303-0813 USA 800.313.3774 • 650.855.2121 • askepri@epri.com • www.epri.com

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"It is the notion of being able to build customer-related processes that are cross-organizational, crossjurisdictional that makes blockchain compelling. It is about the longer-term application – the infrastructure, data, process and how this benefits the customer at end of the day."

parameters of the network show us it is not just about technological elements."