Should utilities accept cryptocurrency for customer bill payment?

An Ask E Source answer

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August 9, 2023

Q: Should we start accepting cryptocurrency for customer bill payment?

A: We don't recommend utilities add an option for customers to pay with cryptocurrency because it wouldn't solve a problem for your customers or improve their experience.

Cryptocurrency isn't enabled for small, quick payments. Transaction costs are high, and few businesses accept this type of payment. And cryptocurrency's value can fluctuate, making users wary of spending the currency.

What is cryptocurrency?

Cryptocurrency is a digital or virtual currency that uses cryptography to secure financial transactions. Bitcoin is the most well-known cryptocurrency, but there are thousands in existence.

Most cryptocurrencies use a cryptographic verification technology referred to as a blockchain—a distributed public digital ledger that serves as the immutable record for all prior financial transactions.

Because of its security features, cryptocurrencies are difficult to counterfeit. But they're also not regulated like other currencies are, meaning they're a target for scammers. NPR's article He lost $340,000 to a crypto scam.

Such cases are on the rise explains there has been a 900% increase in crypto scams since 2020.

What utility programs are suitable for crypto customers?

Read our blog post How can utilities support cryptocurrency miners? to learn which programs you should promote to cryptocurrency-mining customers.

Whether you should accept cryptocurrencies as a payment option for customer billing is largely a question of priority.

- Do you want to be a leader in this space?
- Are your customers investing in and using cryptocurrency?
- And perhaps most importantly, does using cryptocurrency to pay a utility bill solve a problem or otherwise improve the customer bill-pay experience?

The evidence we've seen suggests little demand for the use of cryptocurrency as a utility bill-payment option.

Though it's too early to tell exactly how blockchain and cryptocurrencies will affect utilities, we think the technology may contribute to load growth and help with energy transaction tracking.

How will cryptocurrency contribute to load growth?

Data centers that house a large number of servers have been popping up all over the world to meet the demand for cryptocurrency creation, as well as verification and maintenance of blockchain ledgers.

Though cryptocurrency mining can take place on a small scale by savvy individuals running a dedicated server in their basement, these facilities are becoming large and sophisticated. But this may not represent a notable opportunity for your utility if it's not in a highly attractive location relative to data center siting.

And even if you're in a favorable location, the realities of cryptomining have consistently proved more intense than what utilities and municipalities were prepared for. See the articles This Is What Happens When Bitcoin Miners Take Over Your Town and Cryptominers are stuck in limbo as Hydro-Québec suspends requests for power.

How will blockchain facilitate energy transaction tracking?

Blockchain enables secure, decentralized, peer-to-peer financial transactions, so this technology and others like it are shaking up financial institutions.

In the utility industry, a major challenge to successful grid modernization is real-time, two-way tracking of power flow. Utilities could use blockchain to fairly compensate customers for making valuable contributions to grid operation and possibly even to transact energy directly with other actors on the grid.

Energy industry players are testing and demonstrating this concept, commonly referred to as transactive

energy, and some think blockchain could be an enabling technology in this application. LO3 Energy was the first company to propose and demonstrate a blockchain-based transactive energy system, most notably with its Brooklyn Microgrid project.

We've heard from utility professionals that they don't expect to adopt a fully transactive energy system on their grid any time soon. Enabling and tracking all these endpoint transactions would be challenging and data intensive, and many utilities report challenges even with managing smart meter data.

An intermediary solution may be something like the one proposed by Austin Energy for its Austin SHINES Project (PDF): moving from a generation-only levelized cost of electricity valuation to a more system-wide levelized cost of electricity.
