

LatAm Utilities

Blockchain & Power: The Intersection of Boring and Cool

OUR TAKE: We attended the "Deploying Blockchain into Energy" event, hosted by the Energy Web Foundation (U.S.–Austria, non-profit) and Dena (German state-owned for-profit incubator). Blockchain in the power market is not an entirely new idea, but we were surprised to find well-funded startups already operating a handful of peer-to-peer networks of renewable power trading. The potential ramifications for power companies are varied. On the one hand, there is a benign component that points to cost savings through automation. However, as blockchain allows the widespread adoption of peer-to-peer trading, small-scale solar panel penetration would likely become more financially attractive. As such, generators and energy traders would be more exposed to these technological tail risks.

KEY POINTS

The basic idea is that blockchain technology has the potential to simplify the current complexity of running monetary and physical balances among power market participants. This should make regulators quite happy and could even be read as an overall positive technical development. However, what startups seem to be chasing more aggressively is the development of blockchain apps that would enable prosumers (small players that both consume and produce electricity) to establish de-centralized, peer-to-peer exchanges of renewable energy. Today, prosumers in Europe and North America can take unattractive "back-to-grid" regulated prices for their excess energy (generally solar), or try to develop ad hoc, convoluted schemes to get better prices. Blockchain would allow the creation of a market with a good range of standardized products for small-scale owners, a hard-to-accomplish feat today with different IT technologies.

By enabling such peer-to-peer energy trading, the financial attractiveness of installing solar panels (and even small wind turbines) would likely improve. As a result of more energy-autonomous consumption units, large-scale generators' – especially thermal units' – physical sales and prices would take a hit. There would also be less need for new high-tension lines, and expansion of the transmission grid could slow or be halted altogether. A third corollary would be the slashing of trading gains in electricity markets, as barriers to entry disappear and markets become more transparent and liquid.

For distributors, things look more mixed. An increased, multi-directional flux of energy would require substantial investments in the last mile of infrastructure. Provided that incumbents remain dominant for these type of investments (and they do have an upper hand) remuneration would be theirs to take, either at market prices or in regulated form. We would also expect a polarization of winners and losers among discos: when regulators decide to tighten the screws on benchmark opex due to technical advances, players that are further ahead on the learning curve will have a clear advantage, though much would still depend on the regulators' benchmarking choices.

This is all very exciting, but what about grid stability? If this technology were widely adopted, we believe fluctuations in supply and demand would soar. In the same vein, who would be in charge of the usual "day-in-advance" supply report needed for demand clearing? We think peer-to-peer energy trading would also need cost-efficient battery solutions before it could become a disruptive force to be reckoned with.

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	Rating	1-Yr. Target	Return
AESGENER-SN	SU	CLP 220.00	7.6%
COLBUN-SN	SP	CLP 155.00	4.3%
ECL-SN	SP	CLP 1,270	-1.2%
EGIE3-SA	SP	BRL 38.00	11.4%
ENIA-N	SP	US\$10.90	3.6%
ENIC-N	SO	US\$6.20	7.0%
EOCC-N	SP	US\$24.20	-6.2%
IENOVA *-MX	SP	MXN 95.00	-2.5%
TIET11-SA	SO	BRL 16.00	21.6%

Pertinent Data

	Price	Rating	1-Yr. Target	1-Yr. Return
AESGENER-SN	CLP 223.17	SU	CLP 220.00	7.6%
COLBUN-SN	CLP 151.61	SP	CLP 155.00	4.3%
ECL-SN	CLP 1,343	SP	CLP 1,270	-1.2%
EGIE3-SA	BRL 36.70	SP	BRL 38.00	11.4%
ENIA-N	US\$10.76	SP	US\$10.90	3.6%
ENIC-N	US\$5.97	SO	US\$6.20	7.0%
EOCC-N	US\$27.19	SP	US\$24.20	-6.2%
IENOVA *-MX	MXN 97.55	SP	MXN 95.00	-2.5%
TIET11-SA	BRL 14.17	SO	BRL 16.00	21.6%

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AES Gener	M8, VS0211, VS0355
AES Tietê	M8
Colbun	G, M8, U
Enel Americas	M8
Enel Chile	M8
Enel Generacion Chile	M8
Engie Brasil Energia	M8
Engie Energia Chile	M8
ENova	M8

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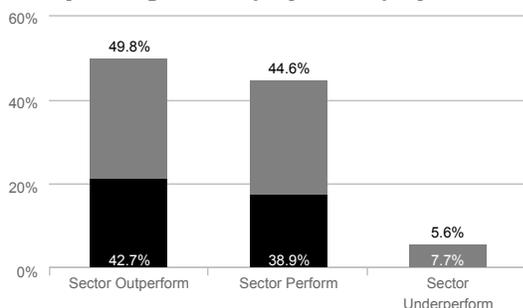
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