EDF Blockchain Perspectives & Activities

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EDF Group
38M Customers
$80B/yr Revenue
150k Employees

EDF R&D
9 Labs
7 Countries
2k Employees
As disruptive as the internet

Digital trust & transactions

Two worlds of blockchain:

“crypto” … … and a new dimension to IT
Key Energy Use Cases & Applications

**TRANSACTIONAL ENERGY**
- P2P Energy Trading
- Demand Response
- EV Charging
- Grid Flexibility
- Decentralized Energy Exchange
- Distribution Management
- Wholesale Trading
- Home/Building Energy Management

**ACCOUNTING**
- Retail Billing
- RECs/Clean Energy Tracking
- Asset Registry
- Materials Traceability

**ASSET TOKENIZATION**
- Renewable Energy-Backed Token
- Clean Energy Mining
- Shared Renewable Energy Assets

**CYBERSECURITY**
- Identity Authentication
- IOT/DER Security
- Grid Security

**Process Optimization (Total = 55)**
- Billing: 13
- Sales & Marketing: 9
- Automation: 7
- Metering and data transfer: 6
- Mobility: 6
- Communication: 5
- Grid management: 5
- Security: 4

**Platforms (Total = 52)**
- Peer-to-peer trading: 26
- Trading platforms (open, aggregation): 17
- Distributed generation: 9

Source: EWF
EDF Activities in Blockchain

EDF R&D project since 2016

PoC’s, Demo’s, & Hackathons

- Ponton Enerchain wholesale trading PoC
- Oslo to Rome EV Charging roaming PoC
- Omega Grid transactive energy PoC
- UK flexibility marketplace demo with Electron
- Internal hackathons in UK, France, & China
- RECs & GO’s internal PoC’s
- Testing at EDF Concept Grid
- ...

Consortia Activity

- Trusted IoT Alliance (alliance with MOBI)
- EPRI Utility Blockchain Interest Group
- Eurlectric
- EY (E2E) natural gas settlement PoC
- EWF (considering)
- Ethereum Enterprise Alliance (considering)
- ...

EDF Innovation Lab, Los Altos, USA
Some Key Blockchain Use Cases & Applications

- Supply chain for project construction & materials
- Environmental attributes – RECs, GO’s, LCFS, & CEE’s
- Trading & transactive energy
- E-mobility
- Crowd funding and shared ownership
Future Perspectives & Recommendations

- The Future of Blockchain:
  - Blockchain + IoT + AI = Massive increase in intelligent automation of devices and processes

- Recommendations:
  - Ensure your organization is dedicating some resources to understanding how blockchain will impact it
  - Avoid the hype; focus on simple, near-term, impactful, and likely less core use cases and applications
ELECTRIFY THE FUTURE!

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