

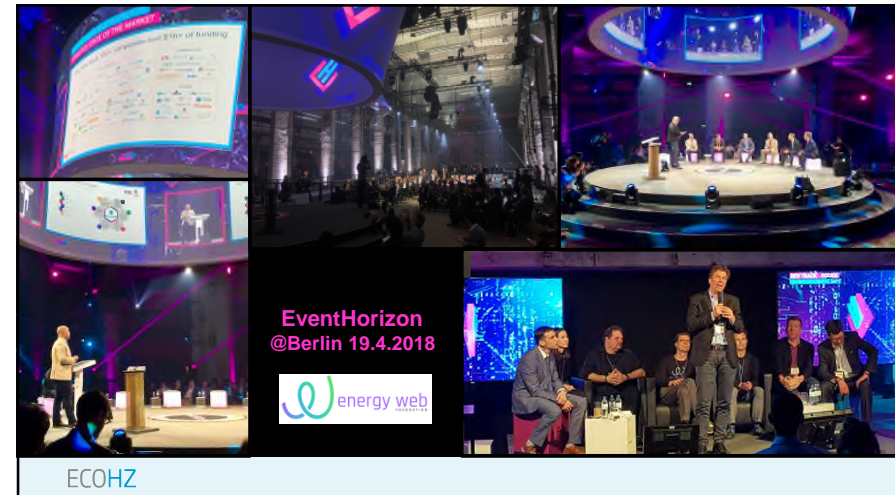
## Blockchain in the energy sector

- Is blockchain a solution to a problem? If yes, which problem(S)?
- Or is it a solution looking for a problem, but yet to find it?

Not clear to me....

So what to do?

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- Systems should be technology agnostic – may the best win
- Tracking origin – works well today – GO, REC, I-REC
  - Secure, cost-effective, information-rich, allows for consumer choice, trustworthy,
- BUT, still some issues with today's systems/standards
  - Users experience complexity in use and rules
  - Primarily country implementations discrepancies
  - Policy and regulation driven - not technology
  - Lack timely and detailed issuing – need time and date-stamp on each GO
- RISKS - DISRUPTION
  - Blockchain-promises may create more confusion and uncertainty in a well-functioning market
  - Creating alternative and competing systems to government endorsed GOs

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- Challenges with Blockchain
  - Capturing meter data – at actual meter level, and bypassing network operators
  - Is just being disruptive smart – bypassing regulators and policy makers
  - Is using tokens (cryptocurrencies) as payment platform sensible for users? Stable and predictable?
  - Are systems really scalable? Proven for volume?
    - Global annual EACs – approx 1000 TWh → 1 billion EACs
    - With blockchain wants kWh, not MWh → 1000 x 1 billion EACs yearly
  - Proof-of-authority – better to have some select players decide rules, than regulators/governments?
  - Independence of the «owner» of blockchain system? Really open and altruistic?
- Conclusion
  - Blockchain needs compelling value proposition
    - Cheaper, simpler, more transparent, more secure, creating more value
  - Need to work with EAC industry, stakeholders and governments – not against

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