



ENDESA

Blockchain against energy poverty

Customer



Services implemented

- Blockchain

The project

Energy poverty affects 11% of households in Spain. During the energy disruption process that begins with the non-payment of an invoice, some claims and communications are made that involve the debtor and various public bodies. That is, in this process that requires different administrative procedures, the Autonomous Communities, Town Councils, Social Services, the National Communications Market Commission (CNMC) and the debtor by himself are involved. If after 3 months the non-payment is not resolved, an energy disruption notice is made. The problem lies on two aspects:

-On the one hand, and by the protection data law it is unknown the identity of the debtor by the company that executes the energy disruption process and therefore if there are at risk of exclusion.

-On the other hand, there is not a unique system of information since much information is shared through channels and agencies, which generates islands of information and limits the agility of social services, that is the agency which has the power to help vulnerable people facing an imminent energy disruption.

Challenges



Minimize the effects of energetic poverty



Optimize the costs and processes of the non-payment procedure



Identify people at risk of exclusion before the energy disruption



The solution

It is proposed a first pilot with Malaga City Council by using blockchain technology to have a real time view of the debtor identification process and unify communications between the parties which are involved that minimize procedures and facilitate the process of identifying vulnerable people before energy disruption is executed. For its technological implementation, Endesa has selected Ayesa as a technology consultancy that, along with Izertis, works on the development of the project through a web portal, an application programming interface (API), and within the specific part of blockchain, the development of Smart Contracts and the configuration and deployment of nodes. Blockchain allows to have all the information in a database distributed among all those involved, in a secure and encrypted way, keeping the operations carried out immutable, in a transparent and traceable way and also respecting the regulations about data protection and the right to be forgotten.

The result

In this way, public agencies will be able to have the information in real time, receiving instantly the data of the people who have received notices of energy disruption due to the non-payment of the electricity supply. In addition, social services will cross-check instantly this information with their own database and will quickly verify with the electricity company if it is a customer who may be at risk of exclusion and therefore benefit from the Social Bonus or interrupt the energy disruption process. This project will allow in the future to create a distributed network to which other Town Councils and Autonomous Communities could join in order to face energy poverty in a much more agile and effective way for the groups which are involved.