

# PARITY

## Newsletter #2

September 2020

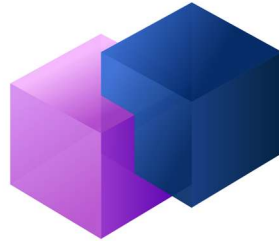
PARITY

[parity-h2020.eu](http://parity-h2020.eu)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 864319

Call identifier: LC-SC3-2019-ES-SCC



# P A R I T Y

## The parity Solution

**PARITY** aims to enable the set-up and operation of local flexibility markets at the distribution network level via a holistic offering, encompassing:

### 01 local flexibility market platform

A smart contract enabled, blockchain based local flexibility market platform (LFM) which will facilitate both peer- to-peer energy/flexibility transactions as well as the sell/purchase of flexibility to Smart Grid actors. Energy/flexibility credits will be used to stimulate liquidity in the local market and to provide the means for market coupling with national energy & ancillary service markets through a mechanism that will link these virtual credits to actual currency.

### 02 Flexibility management tools

IoT enabled Decentralized energy resources (DER) Flexibility management tools – both in a peer-to-peer distributed fashion, but also through a centralized aggregator – that range from tools that uncover latent demand flexibility in building (e.g. Power 2 Heat solutions) and flexibility from sources not yet fully exploited in the current market landscape (e.g. Electric Vehicles) to tools for collecting, coordinating and controlling these distributed flexibility sources, in cases of failure of the local flexibility market.

### 03 Monitoring and management tools

Smart Grid monitoring and management tools to enable the Distribution System Operators to optimally manage the low voltage distribution network in the presence of increasing intermittent Renewable Energy Sources penetration and with the aim to contain the problems they create to grid stability. These tools will comprise both software tools for the real-time monitoring and control of the network assets as well as an innovative



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grid component (STATCOM) which can physically manage power flows on the grid and facilitate the containment of instability and its resolution via services for power quality restoration.

## News

### Publication accepted

CIRCE, with the collaboration of CUERVA, has writing a scientific paper in the framework of PARITY project both proposing a method to calculate the low voltage (LV) distributed photovoltaic generation hosting capacity (HC) that minimizes system losses and evaluating different management techniques for solar PV inverters. The key of the PARITY project that has been explained in the publication is that using real smart meters data from customers and generating different combinations of solar PV facilities placements and power we can evaluate its effect on the grid operation. All this information has been published in journal Energies as open access publication: <https://www.mdpi.com/1996-1073/13/17/4347>

### PARITY project participating in the BRIDGE initiative

PARITY project started its participation to the working groups and task forces of the BRIDGE EC initiative, including the new Research & Innovation priorities Task Force. BRIDGE unites H2020 Smart Grid and Energy Storage Projects. More information can be found <https://www.h2020-bridge.eu>

