



ENERGY **COMMUNITIES** REPOSITORY

DIGITAL TOOLS FOR ENERGY COMMUNITIES

A SHORT GUIDE



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Introduction

The decentralized and distributed nature of renewable energy resources requires the use of digital solutions in order to better manage our electricity consumption, balance distributed supply with demand and make optimal use of existing grid infrastructure. At the same time, the management of energy communities – which often operate like small or medium-sized companies – requires IT infrastructure for their management and operations.

These developments are also recognized in the [European Green Deal](#) and [REPowerEU](#), both of which require a deep digital and sustainable transformation of our energy system. These plans are complemented by the [Digital Decade Policy Programme 2030 for Europe](#), as well as the [Global Gateway Strategy](#).

The [EU Action Plan for Digitalising the Energy System](#) further describes the importance of digital tools to enable consumers to connect and collectively scale up their potential interactions with the electricity system. For example, such schemes could allow a community to:

- better monitor how the community is performing in terms of energy consumption, or
- share solar panels or otherwise engage in energy sharing or peer-to-peer trading of electricity produced from joint investment projects that can make them less dependent on high electricity prices set in the wholesale market.

The Commission seeks to enhance and promote the sharing of knowledge on existing digital tools, with programs tailored to the needs of different demographic groups.

With this in mind, the purpose of this document is to identify and shortlist practical examples of digital solutions for energy communities in different scopes of application. This guide does not aim to be exhaustive, nor does it represent a qualitative evaluation or endorsement of the solutions presented. It merely aims at illustrating different categories of digital solutions which respond to some of the needs and challenges expressed by energy communities to the Energy Communities Repository.

