

Updated template for pilot's progress monitoring



Pilot project information	
GPFM member	Spain – Ministry of Science and Innovation (MCIN)
Project identifier	Spain #2
Project name / acronym	AGRIELECTRIC
Project short description	...
Starting date	Q3 2022
Ending date	Q3 2026
International Cooperation	No
Funding scheme	Public
Project budget (M€)	0.5
Initial TRL level	<i>(drop-down TRL list)</i>
TRL level to be achieved by the end of the project	<i>(drop-down TRL list)</i>
Project coordinator	<i>Name/ Affiliation/ Country</i>
Main actors	...
Project website	...
Infrastructure location(s) Addressess or GPS coordinates	
Infrastructure main assets Please list the main assets and their technical characteristics e.g., BESS 100kW/100kWh, PV panel 20kWp, SCADA, n.6 EV charging points, DC/AC transmission and distribution grid.	

} Project label/identifier

} **Basic information not to be constantly updated**
 In black: data already available from the National Pilots Report
 In red: missing information to be collected

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*1) A - **foreseen**, B - **launched**, C - **study and simulation**, D - **implementation**, E - **experimental activity**, F - **demonstration**, G - **results assessment**, H - **conclusions**, I - **other**

*2) <10%, 10-<20%, 20-<50%, 50-<80%, 80-<100%, 100%

Phase/status	(*1)
If you have selected "other" please specify	
Dissemination phase started	
Output progress (in terms of deliverables, not time)	(*2)
Main achievements and link to public material If already available, please list up to 7 project's achievements such as a new algorithms, proven solutions, data exchange protocol, advanced RES forecasting, new planning procedures, etc. For each achievement please insert the web link to publicly available detailed information.	Web link:
	Web link:
	Web link:
	Web link:
Major challenges and/or barriers in the project implementation Please list up to 3 major challenges faced and solved or still to be solved during the project execution.	
Information to be gathered and stored onto the GPFM toolbox to promote Innovative solutions broad dissemination and possible replication	
Possible synergies with other GPFM related projects Please list up to 5 ongoing projects that show potential synergies.	
Complementarities with other GPFM related projects Please list up to 5 ongoing projects that show potential complementarities.	

Information to be periodically updated

Info for dissemination through the GPFM toolbox

Analysis to be made by task force leads and members

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IPs

50 most urgent Innovation Priorities as identified in the GPFM Action Plan 2022-2024		
Pillar 1 - Affordable and Reliable VRE		
T1.1 – Novel Photovoltaic	1.1.1 High efficiency PV cells and modules	
	1.1.3 Reliability evaluation of PV modules and systems	
	1.1.5 Software and database for PV systems	x
	1.1.6 Recycling and eco-design of PV cells and modules	
	1.1.7 Agri-PV technologies	
T1.2 - Offshore Wind	1.2.2 Floating offshore wind turbines	x
T1.3 - Integrated Renewable Energy (IRE)	1.3.2 Large-scale IRE generation for improving system reliability and stability	
	1.3.3 Distributed IRE generation at grid edge	
T1.5 - Energy Storage Supply Chain, Recycle and Reuse	1.5.1 Analysis of batteries life cycle and monitor, test and recycle of batteries	
	1.5.2 Recycling and reuse batteries design	x
	1.5.3 Innovation in energy storage technologies	x
	1.5.4 Driving cost-reduction across the battery supply chain	
T1.6 - Technologies for System Stability	1.5.6 Safety assessment of electrochemical storage	
	1.6.1 Grid-forming devices applied to solar PV and wind	
	1.6.2 Grid-supporting technologies from inverter-based resources	

Use Cases

High Level Use Cases	
HIGH LEVEL USE CASES	DESCRIPTION
	As a competitive advantage or as an extra service, a retailer can provide its customers a detailed analysis of their consumption profiles. The consumption information can be provided in various levels of detail, on a temporal basis hourly/daily/weekly/monthly, on a device basis, or on the basis of activity category. Consumption will be monitored on a power (KW) / energy (KWh) basis, and will be presented in comparative/illustrative manner to the user (e.g., in pie charts, bar charts etc.), so that the main drivers of consumption are revealed. This information can be derived based on the analysis of the metered electricity consumption, based on clustering of energy data and with the combination of sensor readings, such as temperature, humidity, motion, etc. Importantly, the analysis of consumption data can be kept local at customer premises, if needed.
x	This use case has the objective of preventing congestion issues in the distribution grid by exploiting network flexibility, i.e. reconfiguration of the network topology in the problematic grid area, and DER flexibility, provided by dispatchable DERs located at distribution level. Congestion management can be considered in different timeframes, i.e. real-time operation, operational planning, and long-term planning. DER flexibility remuneration can be realized via bilateral contracts and/or flexibility markets operated by a third party.
	Customers and distributed third-party energy resources that have the ability of changing their consumption or generation for short time could be aggregated, and their flexibility could be offered as ancillary service to TSO or to be used for DSO grid purposes. For commercial purposes, the flexibility operator offers ancillary services to the TSO (frequency control services and balancing). The flexibility operator pools flexibility of DER with the commercial VPP system. On the other hand, the same DERs' flexibility could be used by the DSO for non-frequency DSO needs (solving local congestions and voltage problems).

Information already collected during the preparation of the National Pilots Report
To be checked and updated by members

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