FLEXGRID PROGRAMME

THE P.A.C.A SMART GRIDS REGIONAL INTEREST OPERATION
Smart Grids, one of the priorities of the “New Face of Industry in France” plan

Globally, the renewable energies sector accounts for estimated turnover of €30bn per year

- From 2017 onwards, deploy a set of **industrially mature Smart Grid equipment and technologies** across a large, representative area.
- Develop successful **business models**.
- Turn the deployment zone into a **showcase** of France’s Smart Grids expertise for the export market.
Flexgrid Programme

42 territorial projects
6 cross-cutting projects:

- Acculturation and society mobilisation,
- Support and mobilisation of SMEs,
- International promotion, leveraging and growth,
- Training and skills development,
- Data management,
- Cyber-security

€340m in investissement

€10,5m invested by RTE and €20m by Enedis over the 2017-2020 period to support the projects

800 involved companies and entities

2600 beneficiary companies, 115 000 beneficiary citizens
FLEXGRID projects portfolio
Self-consumption of renewables, storage, energy optimisation and greater flexibility of the regional and international key economic sites

Use values and economic values sought by companies:
- Capturing the lower market prices (purchase/sale), securing prices
- Power reductions
- Avoiding costs of disturbance on the public distribution system and consumption errors
- Cost sharing between erasing and RES self-consumption
- Enhancing their public image
- Providing flexibilities and system services to electricity grid operators

Project contents:
- RES self consumption
- Electrochemical energy storage and demand storage (process, cold...)
- Active management of productions/storage/consumptions

Data centers (electro-sensitives)
Heavy industry (intensive consumption)
Cold-storage transport and warehouses
Agriculture, agro-processing and agro-industries
Aromatic industries
Tourism
FLEXGRID projects portfolio
Self-consumption of renewables, storage, energy optimisation and greater flexibility of the regional and international key economic sites

17 projects

Project contents:
• RES self-consumption (PV, hydroelectricity, seawater circuit technology, geothermal energy, hydrogen, biomass...)
• Demand storage (process, cold)
• Active management of productions/storage/consumptions
• Smart meters and smart grids (distribution networks)

Use values and economic values sought by companies:
- Power/energy reductions
- Securing prices
- Cost sharing between erasing and RES self-consumption
- Avoiding consumption errors
- Boosting social, economic, territorial development
- Providing flexibilities to electricity grid operators

Sustainable and inclusive cities (logements sociaux)
- Port de Bouc
- Frais Vallon (Marseille)

Mountain resorts
- Les Orres
- Isola 2000
- Devoluy

Coastal cities in hot countries
- Toulon, Cagnes/mer
- Nice

River and protected territories
- Euroméditerranée (Marseille)
- Hautes Alpes et Alpes de Haute Provence

Islands and remote areas
- Lérins
Use values and economic values sought by companies:

- Fluctuations management
- Finding the best productions investment from buyers and markets.
- Providing flexibilities and system services to electricity grid operators
- Enhance the integration capacity of RES in the grids
- Reducing costs of connecting new RES producers

Synergies between gas networks and electricity grids:

- Electric productions from gas transportation applications and industrial self-consumption
- Flexibility/Storage of power to gas
FLEXGRID projects portfolio
Smart management of electric vehicle charging and discharging

6 projects

Projects content:
• Shared frame of reference (levels of intelligence)
• Installation of public charging stations (potentially supported by RES)
• Exchanges with drivers and incentives
• Framework for the development or private charging
• Vehicle to home or to grid

Use values and economic values sought by companies:
• Electric vehicle sales
• Estate value
• Pricing of charging
• Avoiding costs for the strengthening of networks
• Reducing the impacts on air quality

Deployment of public smart charging stations and of smart user interfaces (04,05,06,13 departments).

Electric charging and mobility between The Camp, Marignane and Aix TGV