PLANAIR SA

Short description:

PLANAIR SA (110 employees) is an independent Swiss engineering and consulting company operating in Switzerland and France with focus on renewable energies. In over 30 years of experience, the company gathered a large number of references (public bodies, architects, general contractors, various types of industries, households and European projects). This allowed the acquisition of insights in many different challenges related to energy management.
PLANAIR SA is active in particular in building technology (HVAC + electricity), photovoltaic/wind energy/storage planning, territorial energy planning, design and implementation of complete energy systems (including local energy production and storage), microgrid scale simulations, development of energy distribution networks (electricity and heat), auditing, identification and implementation of energy efficiency measures in industry and private households, as well as sustainable refurbishment of building. In recent years, PLANAIR SA has developed an exclusive simulation tool for the development of technically and economically optimized (stand-alone or interconnected) energy networks, including the production of any type of local renewable energies, stationary storage and vehicle to grid.

Through its activities, PLANAIR SA is involved in the whole value chain of energy consulting: Design and management of federal grant programs, conduct of technical, economic and legal studies, definition of guidelines, planning and implementation of turnkey energy projects (including tender procedures and energy contracting), monitoring, optimization of energy systems, teaching, technology transfer and dissemination. The ongoing feedback from projects carried out feeds into a continuous improvement process, both technically and economically.

Partnership / cooperation possibilities:

The aim of PLANAIR SA is to contribute to the continuous development of (i) energy management in the industrial sector in general (energy production vs. needs/consumption), (ii) industrial processes in particular, (iii) peak load shaving strategies for electricity, (iv) district planning (including energy flows), (v) simulation and integration of renewables and storage in energy networks.

PLANAIR SA is used to carrying out its work through (mostly proprietary) simulation tools, scenarios and demonstration projects. It could act as a (co-)developer of technical or non-technical innovative solutions and demonstrators, with large and facilitated access to a broad palette of existing infrastructures (e.g. industrial sites, public infrastructures, PV plants). The company has the capability to assess energy performances of demo-project by applying recognized methodologies, monitoring tools and international protocols.

Preidentified H2020 calls (2020) identified by PLANAIR SA:

Topic ID	Titre
LC-SC3-RES-27-2020	Demonstration of advanced biofuels production from aquatic biomass
LC-SC3-RES-33-2020	Increase performance and reliability of photovoltaic plants
LC-SC3-B4E-1-2020	Towards highly energy efficient and decarbonised buildings
LC-SC3-B4E-6-2020	Big data for buildings
LC-SC3-B4E-8-2020	Renewable and energy efficient solutions for heating and/or cooling, and domestic hot water production in multi-apartment residential buildings
LC-SC3-B4E-10-2020	Self-assessment and self-optimisation of buildings and appliances for a better energy performance
LC-SC3-ES-3-2018-2020	Integrated local energy systems (Energy islands)
LC-SC3-ES-4-2018-2020	Decarbonising energy systems of geographical Islands

LC-SC3-ES-5-2018-2020	TSO – DSO – Consumer: Large-scale demonstrations of innovative grid services through demand response, storage and small-scale (RES) generation
LC-SC3-ES-11-2020	Rapid Relief through Transitions on Islands
LC-SC3-ES-12-2020	Integrated local energy systems (Energy islands): International cooperation with India
LC-SC3-B4E-2-2020	Stimulating demand for sustainable energy skills in the building sector
LC-SC3-B4E-3-2020	Upgrading smartness of existing buildings through innovations for legacy equipment
LC-SC3-B4E-4-2020	Next-generation of Energy Performance Assessment and Certification
LC-SC3-B4E-14-2020	Enabling next-generation of smart energy services valorising energy efficiency and flexibility at demand-side
LC-SC3-EC-5-2020	Supporting public authorities in driving the energy transition
LC-MG-1-12-2020	Cities as climate-resilient, connected multimodal nodes for smart and clean mobility: new approaches towards demonstrating and testing innovative solutions
LC-GV-08-2020	Next generation electrified vehicles for urban and suburban use
LC-SC3-JA-5-2020	Joint Programming with EU and African partners for R&I actions in the area of renewable energy
LC-SC3-RES-1-2019-2020	Developing the next generation of renewable energy technologies
LC-SC3-RES-26-2020	Development of next generation renewable fuel technologies from CO2 and renewable energy (Power and Energy to Renewable Fuels)
DT-ICT-12-2020	AI for the smart hospital of the future
LC-SC3-SCC-2-2020	Positive Energy Districts and Neighbourhoods for urban energy transitions

Some references

Energy efficiency based on real time monitoring

PLANAIR SA has developed tools to analyse real time consumption of different energy usages in industry, high energy intensive services such as hospital and district heating. It includes new audits and optimization approaches. PLANAIR SA leads several energy efficiency programs with financing related to the real energy savings, including a large program dedicated to energy efficiency in hospitals.

Sectorial Fora

PLANAIR SA represents several federal and private Swiss associations in western part of Switzerland and is therefore deeply involved in sectorial Fora for energy efficiency for industry (EnAW), energy efficiency for cities (Cité de l'énergie), solar energy (Swissolar), wind energy (Suisse Eole) and E-mobility (Electromobile Club Suisse). Planair is involved in International Energy Agency (IEA) Technology Collaboration Programs (TCPs), with active role in communication, strategy and dissemination in the Wind and PV TCP.

Self-consumption scheme in microgrids

Since 2018, Switzerland has a very open policy for self-consumption communities. It is now possible to sell PV electricity to neighbours, even if there is a road to cross to do that. Small PV microgrids are emerging, and PLANAIR SA manage projects combining BIPV, storage, e-mobility (V2G) and flexible loads to optimize the revenues of these new microgrids. Planair has developed a dedicated simulation tool to evaluate the full value of battery, PV and flexibility in such microgrids.

Distribution grid planning with high share of renewables

Increasing self-consumption could have a huge impact on grid revenues and grid planning. PLANAIR SA has developed a dedicated tool, "Grid Vision", used by the Swiss federal government, to evaluate the effect both on grid revenues and renewable/storage deployment of different grid tariffs schemes. This piece of software is very relevant to evaluate future distribution grid business models.

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Selection of ongoing EU-projects

REGENERGY (CH local coordinator): As part of the European Interreg NWE project "RegEnergy" (budget €10 million), PLANAIR SA is in charge of the design of a demonstrator to develop self-consumption within a group of prosumers, as well as synergies between the deployment of electric mobility and the production of local renewable energies. This project consists in particular of technical and economic simulations of a network optimized for self-consumption within an economic activity zone integrating a high PV potential, generalized Vehicle-to-Grid (V2G) terminals, stationary storage and various economic parameters.

IMPAWATT (coordinator – ongoing): Web platform and method supporting SMEs in identifying and implementing energy optimization measures.

THERMOSS (participant – ongoing): Energy savings by improving district heating management.

AMBASSADOR (participant): Energy-flow optimization, by controlling dynamically the consumption and the production at the level of a district.

SOLUTION (coordination.): Development of self-sufficient communities through measures on supply and demand management, energy storage, optimization of buildings and devices, production of renewable energy, model area and replication potential.

HOLISTIC (CH local coordinator): Stimulating of changes in the use of energy within communities to more sustainable patterns.

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