AGISTIN | DEMO

AGI-integrated innovative storage for large pumping loads

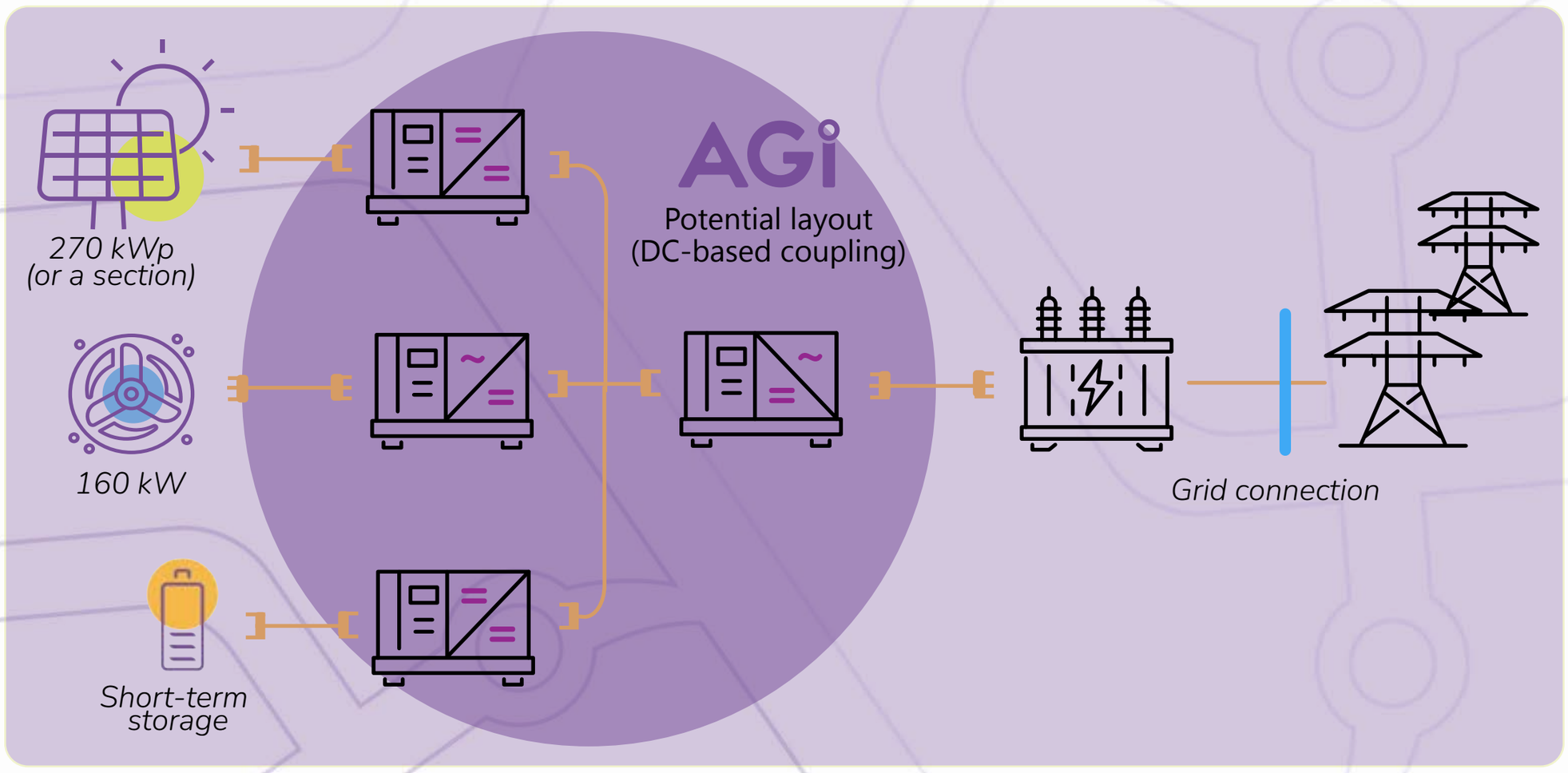
Location

Segrià-Sud canal northeast Spain.

Objectives

1. Improve the irrigation systems performance and water management capacity (e.g., optimal pumping)
2. Increase the renewable energy integration (e.g., low irradiance pumping, increased PV integration mode, smooth power ramps during variable irradiance conditions).
3. Test the integration between water storage system and aqueous ECR battery system.
4. Enable provision of ancillary services from the canal (e.g., energy storage, frequency and voltage support / regulation, grid-forming operation, black-start capability, etc.).

Proposed AGI and Innovative Storage Approach



Technologies used

- Three Pumps
- Aqueous ECR battery
- PV generation
- Variable Frequency converters
- AC/DC inverters

Expected results

- Water management operation costs reduced.
- Grid flexibility services enabled.
- Demonstration of successful operation and integration of aqueous ECR battery technologies for a next generation pumping station.

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CONTACTS
info@agistin.eu
https://agistin.eu
@agistin
@AGISTINProject