

Airborne Wind Energy in the context of conventional wind farms

Challenge submitted by Skypull

CHALLENGE QUESTION

How to best integrate airborne wind energy (AWE) systems into conventional wind farms?



EXPECTED OUTCOMES

Concrete recommendations for (1) improving existing wind farms by adding AWE systems, (2) designing new wind farms using AWE systems installed at sites that are already planned and approved for conventional wind farms.

MOTIVATION

In order to speed up the energy transition, it would make sense to significantly increase the energy yield of existing wind farms using airborne wind energy. In view of the strong opposition to conventional wind farms in Switzerland, proposing airborne wind energy systems could contribute to improved acceptance.

GOAL

Develop recommendations for integrating AWE systems into existing wind farms. In particular, the focus will be on:

- 1) Deciding how to best improve existing wind farms by adding a Skypull AWE system inside it or in the area, taking into account aspects such as the main wind direction, grid connection point, ski resort vicinity, etc. (using a concrete example in Switzerland).
- 2) Deciding how to install a new wind farm only using Skypull's AWE system based on site where a conventional wind farm is already planned and approved (using a concrete example in Switzerland).

WHO THE CHALLENGE IS SUITABLE FOR

AWE experts, engineers, researchers, students, project planners, anyone involved in permitting.