

Photovoltaics Bring Climate-Friendly Cable Car to Life

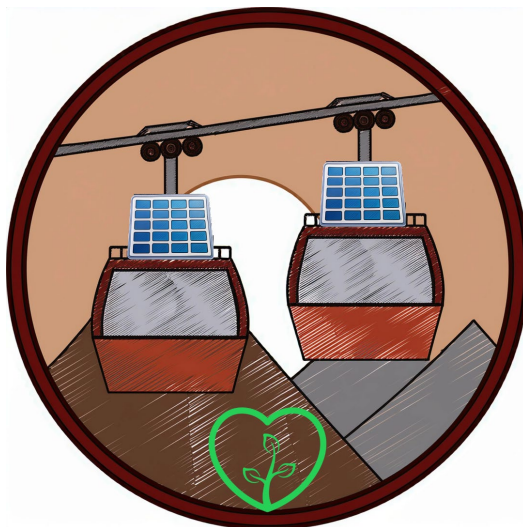
Climate-friendly energy generation from PV systems on gondolas reduces the power consumption of the cable car systems from the grid. This also works in foggy conditions, whilst solar parks in the valley are not efficient in such weather conditions. Moreover, the existing infrastructure (cable car) can be utilised and no additional posts, structures or installations are required in the countryside, often high up in the Alps.

BACKGROUND

There is growing concern about climate change, and energy demand is increasing. Countermeasures are needed that would not require additional land to be built on. Thanks to this new development, energy costs for cable cars can be reduced.

TECHNOLOGY

The energy generated by the solar panels on cable car gondolas (roof-mounted or as semi-transparent windows) is temporarily stored in supercaps and released within a few seconds in the valley station via an isolated discharge. This energy can then be used for operating the cable car or for other purposes at the site, for example for charging the vehicle fleet.



ADVANTAGES

- No additional ground sealing
- Preservation of the natural scenery
- Applicable also for urban cable cars
- Improving the reputation of winter sports

REFERENCE:

M040/2022

DEVELOPMENT STATUS:

TRL 2

APPLICATIONS:

Energy generation on transport systems, cable car power station

KEYWORDS:

Climate, PV systems, energy generation, cable car, green electricity, renewables, cable car power plant

IPR:

AT and PCT filed

OPTIONS:

R&D cooperation,
Development partnership,
License agreement

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