



Hydropower for CO₂-free Electric Buses in Old Town of Regensburg, Germany



Sustainable Development Goals Addressed



Organization, Institution or Company

Regensburg Public Transport (Regensburger Verkehrsverbund - RVV) and Regensburg Energy Agency (REWAG) Public Companies of City of Regensburg, Germany

Location of project site, Country

Regensburg, Bavaria, Germany

Brief narrative objective/description of project/activity/initiative

Electric mobility provides options for mitigating local air pollution and carbon emissions if electric vehicle batteries are charged with electricity from renewable sources.

The old town of Regensburg located on the River Danube in South-Eastern Germany was recognized by UNESCO as a World Heritage Site. In order to enhance local living conditions for residents and in order to make the old town attractive for shoppers from surrounding towns and villages and for visiting domestic and international tourists the City of Regensburg and its Public Transport Company have procured 5 new electric city buses which service the old town inner city route and pedestrianized areas around the main historic attractions without noise or motor fuel emissions. The bus batteries are recharged during nights and during the day at a fast-recharge station. The electricity for the city e-bus service is procured exclusively from a near-by run-of-river hydropower station.

Inner City Route “A” is serviced by 5 electric buses manufactured by Rampini Company in Italy. Because many roads in the old town are rather narrow, the busses are small, only 7 meters in length, and 2.2 meters in width. The buses provide seats for 14 passengers, and can carry up to 25 additional passengers standing for the short distance trips. The buses can transport wheelchairs and accessible for elderly people and people with disabilities.

Economic, environmental and climate benefits/challenges/lessons learned



Photo by REWAG (Martin.Gottschalk@rewag.de)

The Run-of-river hydropower station on the River Danube in Pfaffenstein near Regensburg is owned by Rhein-Main-Donau AG and operated by Uniper Kraftwerk GmbH. The hydropower facility was first built in 1977, and renovated in recent years. The facility has a head of 3.8 meters. Power is produced by two turbines with a combined capacity of 7.2 MW. The station produces about 40 Million kWh of CO₂-free electricity for the City of Regensburg, which is sufficient to power some 11,000 homes. Regensburg's electric bus service is powered exclusively by local hydropower, demonstrating an example of a sustainable water-energy-transport solution.

Additional information: website addresses and contacts

Regenburger Verkehrsverbund (Public Transport Company): <https://www.rvv.de/?lang=en>

Regensburg Energy Agency (REWAG) <http://www.energieagentur-regensburg.de/>

(in German only)



Photos by Ralph Wahnschafft