

1.3 GERMANY: CASE STUDY

1. OUTDOOR-POOL SOCIETY OF DINGDEN

Case study report for Germany: Community owned energy project from initiation to completion
Outdoor-pool society of Dingden

1 Introduction

In Dingden, a district of the city of Hamminkeln (27,000 inhabitants) a citizens' volunteer initiative found to support the public outdoor-pool's operation now uses public rooftops for solar PV. The electricity sales revenue allows the society to financially support the municipality in order to maintain the pool's conditions.

2 Description of community

The outdoor-pool society of Dingden (Freibad-Verein Dingden e.V.) has 3,100 members (as of March 2019) and was found in 2000 in order to support the operation of the public outdoor-pool. It is a "registered society" (German: eingetragener Verein, abbrev.: e.V.), which is a non-profit legal entity in Germany.

At this time, the municipality had to close the pool outside of the summer vacations due to tight budgets. Local citizens affected by the closing volunteered to maintain the pool's operation during May and July. Since 2001, the society provides all operational staff for rescue, ticket sales and cleaning in May and June, while the municipality remains responsible for the maintenance of all facilities and green areas. With start of the summer vacation, the municipality takes over the entire pool operation.

For their membership fee (6 € per year for adults over 16 years, children for free), the society's members are eligible to purchase season swimming passes (adults 25€, students and children 10 €).

In 2012, the society started to install solar PV panels on municipal rooftops, including the pool's building. Electricity sales turnovers allow the society to pay 20,000 € per year into the municipal budget, earmarked for pool maintenance purposes.

3 Renewable Energy Project

As of March 2019, the outdoor-pool society operates photovoltaic panels on six municipal rooftops: the pool's building, the local fire station, two schools, a gymnasium and a kindergarten. The facilities have a total installed capacity of 245 kWp with an annual power production of more than 200.000 kWh.

The latest PV installation at the pool delivers electricity that is self-consumed in pumps and lighting, the rest is injected into the public grid.

4 Ownership structure and financial model used

The outdoor-pool is entirely in municipal ownership. It is only leased to the society to carry out its "swimming activities", in return for a rent of 1,500 € per year.

All photovoltaic facilities are in ownership of the outdoor-pool society. The used rooftops are leased from the municipality for an annual rent of 3,500 €. The total investment amount of 480,000 € was entirely loan-financed by the local savings bank, while the municipality provided guarantees of 150,000 €. Since all installations are eligible for the national Feed-in Tariff scheme which provides a fixed and guaranteed price for the electricity produced over 20 years, default risks are low. The grid-injection of electricity generates an annual turnover of about 50,000 € in a sunny year. After deducting loan repayments, interests, rooftop rents and operational costs, the society is still able to pay a surplus of 20,000 € annually to the municipal budget. The payment is entitled as expense allowance for pool maintenance, that is carried out by the municipality. Therefore, it is earmarked for corresponding investments, only.

The self-consumed electricity at the pool is being metered separately and, on balance, sold to the municipality at a market-based price for green electricity.

5 Implementation Process

In 2012, Helmut Wisniewski, the outdoor-pool society's chairman, attended an information event by the city treasurer. The municipality of Hamminkeln was aiming to lease its own rooftops to private investors, after an unsuccessful attempt for own installations. According to the motto "Whether you make one or you make seven – it's the same work", Wisniewski – already chairman in his 12th year – convinced his society to exploit as many rooftops as possible. Taking out the loan of initially 430,000 € was relatively easy, since the society and the local savings bank were well acquainted through earlier investment cases such as a water slider. With the municipality – also in long standing partnership with the society – backing up with 150,000 € of guarantees, the entire investment could be financed by loans.

6 Project results: Lessons learnt & post-project benefits

Initially found to voluntarily help out, the outdoor-pool society of Dingden now even provides financial aid to maintain and develop the public pool. The case demonstrates how active citizens can contribute not only to the local quality of life, but also to the sustainable development of the entire community. In 2013, the society was awarded the Climate Protection Award by RWE, a large power company, and in 2014 it bore the Climate Protection Flag of the County of Wesel.

A key success factor for the society's development is the low entry threshold for members. At only 6 € per year for an adult, membership fees are more than affordable, providing access to an important recreational facility for the local community. After being found with 85 members, the society grew tenfold within a year and now has 3,100 members, making it a considerable stakeholder in the local society.

On this basis, a long-standing and successful cooperation with the municipality could evolve, eventually enabling the photovoltaic installations.

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