MountEE - Energy efficient and sustainable building
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QUESTIONNAIRE GOOD PRACTICE SUSTAINABLE BUILDINGS

WILDPOLDSRIED - CLIMATE ACTION PLAN

CATEGORY: REGIONAL STRATEGIES AND PROGRAMS

Supported by INTELLIGENT ENERGY EUROPE

Region / local area considered: Alps/Germany	**Good practice submitted by CIPRA**

1) Short description of the action / strategy / project

Since 1999, the 2.500-inhabitant-town of Wildpoldsried has an Environmental strategy focussing on energy saving and production, sustainable building and water protection. Following its success, in 2010 the municipality adopted a climate plan. The objective is to generate from renewable sources the whole (calculated) energy requirement by 2020.

2) Background / targets

"Wildpoldsried Innovativ Richtungsweisend –WE/WIR - A town goes its own way": under this motto, an ecological profile for the town has been drafted in Wildpoldsried since 1999 with the involvement of the citizens, and has received Bavarian, national and international prizes. This three-pillars model comprises the following components:
1. Renewable energy production and energy savings (private houses have posibility to use biomass collective heating)
2. Maximum use of wood as an ecological construction material (public buildings as example)
3. Protection of surface and underground water resources and waste water treatment.

In 2010, already 321% of the overall electricity requirement of the municipality was generated from renewable sources (wind, sun, water and biogas). 100% of the public buildings are heated by means of biomass.

The concept of the new climate plan was proposed by the value creation work team and was unanimously accepted by the town council in 2010. The title of the plan is:
"WE/WIR (Wildpoldsried – Innovativ – Richtungsweisend) take responsibility".

Sustainability and Responsibility are defined in the objectives set for 2020:

- WE produce more renewable energy than we consume
- WE reduce more CO2 than we generate
- WE shape our future
- WE maintain quality of life for our children
- WE are in favour of efficient technologies

WE use the gifts of creation: wind – sun – water – earth

3) Detailed project / program description

Activities since 1999:

1. Energy:
    - Collective buying campaigns for photovoltaic/solar systems, PV arrays on public buildings (local clubs look after them and get part of the revenues for their honorary work), free energy counselling for residents, municipal energy management for public buildings,

- construction of a 400 kw wood pellet heating system for the village (also catering for private properties), complemented by four private biogas-facilities on nearby farms. These "energy-farms" also feed into the district heating network and replace the pellet heating in summer. The regenerative energy is cheaper than heating oil and saves additional cost and space for private heat supply (installations, chimney sweeper etc.)
- modified land use plan for wind power, the investment plan included private shareholders from the village, which raised acceptance for the wind power plants,
- campaign to convert vehicle engines to vegetable oil, street lighting conversion,
- building thermography and heat pump replacement campaigns (with amortization of new heat pumps after two years already).

2. Building zone for detached houses in passive house specifications St. Cyprian-Ost, financial incentives by the community.
   Wood: First school constructed with laminated timber beams (interlocking wooden panels) in 1996, and the old building as well as the school gym were renovated to be energy efficient in 2011. Germany's first wooden parking garage built in 2005, wooden sports centre built in 2004 (147 kwp PV array on south-facing roof, grassed north-facing roof for controlled rainwater seepage, connection to district heating system). Ongoing replacement of public buildings by buildings complying with the passive house specifications (e.g. in 2012 a day nursery).
3. Refurbishment of an old tavern following the specifications of passive houses (with expansion) and will be used in the future as an environmental training centre.

4) **Funding / financing / costs**

District heating plant and village PV systems planned and operated by Dorfentwicklungs-GmbH (owned 100% by the local authority). Indoor sports centre built on council land by Wildpoldsried Sports Club with additional funding from the local and regional authorities. WiWaLaMoor wetland waterscape project managed by the local authority with 50% co-financing by the EU.

Total costs of the different buildings:
http://www.wildpoldsried.de/se_data/_filebank/alte_pdfbank/holz.pdf

Special solutions:
- Local clubs take over caretaker-responsibilities for financial grants.
- Funded building zone for passive houses
- Local banks take over the costs of building thermography, if further action/investment is taken.

Total cost of investment into energy projects (private&public) is 24 Million €, returns on investment are around 4 Million €/year in saved energy. Benefits for regional craftsmanship have not been estimated.

5) Main results

Over 335 % of total power consumption in the village are now covered by renewable energy

(1580 kwp photovoltaic arrays, 7 wind power plants, 3 hydropower plants, 4 biogas plants). The district heating plant produces annual savings of 150,000 litres of heating oil and 470 tons of CO2.

The village's positive energy image is motivating more residents to invest in innovative, climate-friendly systems.

Beside a reduction of the energy consumption, the strategy of wieldpoldsried brought new activities in town. Some innovative enterprises (Knecht-Ingenieure,Die Solar,Eternal Energy GmbH,Sunmachine GmbH,Zimmerei Prutscher) moved to Wildpoldsried and tourism is improving. About 100 "energy-excursions" per year are organized by the town. For this reason, an environmentally friendly training centre (built following passive house specifications) opened in spring 2012. International visiting groups but also guests and people on holidays will have the opportunity "to meet and sleep without CO2 emissions".

6) Analysis – lessons learnt and success factors

Targets from 1999 have been met. Higher targets for 2020 have been redefined.
Now, we estimate that 470 tons of CO2 are saved every year in Wildpoldsried. Beside social effects (social links reinforced, less energy costs for the families), we estimate that the strategy allowed 140 new jobs in the community.

The most important and successful method in all the action is surely to win the public support for "Energy and Climate Protection" and motivate them to participate. The citizens choose rather to participate, when it is voluntarily, when connection to the energy services is not compulsory or when there are possibilities for them to invest and earn revenues from the projects, too. All individual projects have been carefully planned, calculated, and the citizens involved from the beginning. Some of the pilot projects of Wildpoldsried have since been copied many times by other municipalities.

7) **Time frame**

Strategy started in 1999
Climate Plan adopted in 2010
Ongoing

8) **Contact project owner**

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other sources: http://www.cipra.org/en/climate-projects/cc.alps/competition/wildpoldsried/?set_language=en
http://www.cipra.org/en/climate-projects/competition-cc.alps/GemeindeWildpoldsried
http://www.alpconv.org/en/ClimatePortal/territorialexamples/wildpoldsried/default.html;

http://www.wildpoldsried.de/index.shtml?Energie

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