Peer to peer learning session
Webinar | 28 January 2021

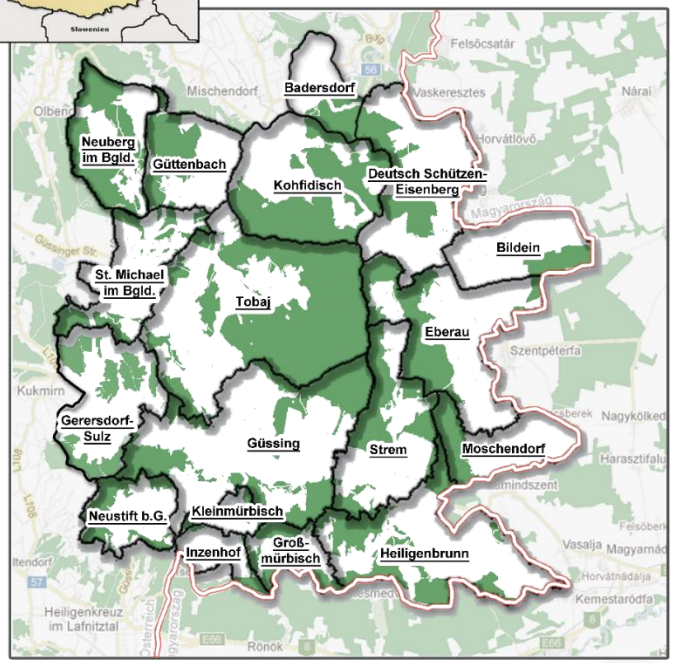
Boosting pv-expansion through initiatives at public, private & company level

PROSPECT2030 | European Center for Renewable Energy Güssing (EEE) | Andrea Moser

The European Center for Renewable Energy Güssing

- EEE was founded in 1996 and is a:
  - service and consulting company and acts as a kind of energy agency
  - umbrella organization for all energy-related activities in the region
  - developer of sustainable, regional & municipal energy concepts and energy strategies
  - network organization and partner in various national & European projects
  - coordination center in the fields of research, development & project management

The EcoEnergyland



- Association of municipalities founded in 2004
- 19 municipalities / 17.600 inhabitants
- 420 km² / 45 % forest

- Main goal: Phase-out of fossil fuels and self-supply by local/regional available renewable resources

- Joined the “Climate- and Energy Model Region Programme” in 2009

- Supported & lead by the “Model Region Management” (EEE)

The EcoEnergyland

- Initiatives were based on the two main resources → **BIOMASS & SUN**
- **1st step: realization of initiatives & measures for the use of biomass**
  - 1 biomass power plant (1.3 MW_{el}, 7 MW_{th})
  - 13 biomass heating plants (≈ 22 MW_{th})
  - 4 biogas plants (2.5 MW_{el}, 1.5 MW_{th})

- **2nd step: initiate pv-measures for increasing renewable electricity production**

THE APPROACH

Municipal initiatives

MUNICIPALITIES AS ROLE MODELS

- Public Participation Model
- Initiatives for pv-installations on public buildings/infrastructure
- Consulting Services & Funding support

Private initiatives

CITIZENS AS MULTIPLIERS

- Rooftop Programms
- Participation at municpal projects
- Consulting Services & Funding support

Company initiatives

COMPANIES AS INFLUENCERS

- Offering of a special financing model "rental model"
- Consulting Services & Funding support

INITIATIVES AT MUNICIPAL LEVEL

Public-Participation model

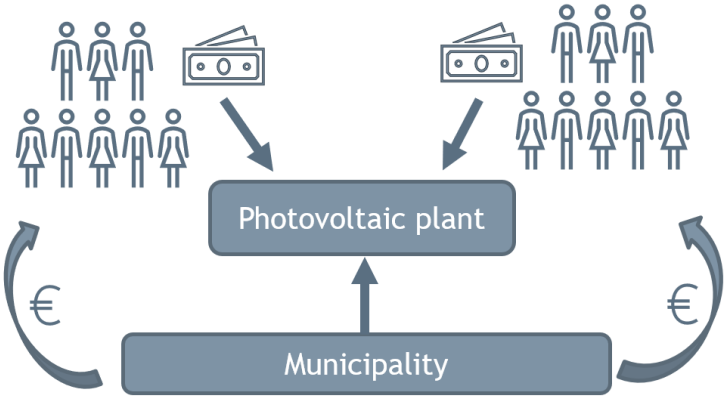
- The idea behind:
  - Create a new investment opportunity for citizens which promises higher interest rate than the passbook
  - Possibility for private people to invest in renewable energy projects in their municipality
  - Raising awareness in the field of photovoltaics
  - Enabling municipalities to realize PV plants without equity

- How it works:
  - Prerequisite → availability of a reasonable feed-in tariff
  - Having suitable public buildings for pv-installation
  - Planning of the pv-plant & calculation of the revenue & rates of return
  - Promotion of the possibility to invest in sustainable energy projects

INITIATIVES AT MUNICIPAL LEVEL

Public-Participation model

- The participation:
  - Citizens of the municipality can participate by purchasing shares of the pv-plant
  - One share corresponds to about € 1.000,-
  - Participation is a kind of "silent participation“ that refers to the operation of the plant & thus also in the profit & loss
  - Citizens receive an annual profit advance of approx. 3-4%
  - Invested capital is paid out again after 13 years



INITIATIVES AT MUNICIPAL LEVEL

Public-Participation model

- The results :
  - Public Participation plants in 40% of the EcoEnergyland municipalities
  - Overall capacity 400 kW_{peak}
  - The largest one has a size of 170 kW_{peak}





INITIATIVES AT MUNICIPAL LEVEL

Promoting pv-installations on public buildings/infrastructure

- **Initiatives based on 2 different models:**
  1. **Public Participation Model**

     - public participation model was also used to increase pv-installations on public infrastructure (*biomass plants, sewage sludge plants, pump stations, etc.*)

  2. **Combination of different subsidy schemes**

     - EEE detected the possibility of combining 2 different grants
       - pv-investment subsidies from the climate- and energy fund (40%)
       - investment allocations from the land government (50%)

     - Since 2020 there is again a possibility for subsidy combination at municipal level:
       - COVID-19 investment subsidy (50%)
       - ERDF funds (50%) OR investment subsidies of the climate- and energy fund (40%)

INITIATIVES AT MUNICIPAL LEVEL

Promoting pv-installations on public buildings/infrastructure

- The results :
  - pv-plants on all sewage sludge plants (5 plants / 135 kW_{peak})
  - pv-plants on district heating plants (3 plants / 155 kW_{peak})

INITIATIVES AT PRIVATE LEVEL

Rooftop Programme

- The idea behind:
  - People increasingly buy different things on installments
  - Why not to offer pv-purchase on installment?
  - The idea was to create an offer for citizens to purchase a pv-plant for a monthly rate of about € 50,-

- How it works:
  - EEE elaborated a pv-installment purchase model called “50 rooftop programme”
  - EEE cooperated with a local installer and a regional bank
  - A plant size of 3.5 kW_{peak} was defined & a price with the installer was fixed
  - An agreement with the regional bank was made to provide us the overall amount for 50 pv-plants with a fixed interest rate over the whole financing duration

INITIATIVES AT PRIVATE LEVEL

Rooftop Programme

- The result:
  - pv-plant size: 3.5 kW_{peak}
  - monthly rate: 53 €
  - fixed interest rate: 1.8 % p.a.
  - duration: 12 years
- The participation:
  - people needed to register for a plant (first come – first serve)
  - EEE organized the appointments with the installers
  - citizens needed a positive financing notice from the regional bank
  - then the plant was ordered & installed
- Advantages:
  - people just needed to announce interest (everything else was organized by EEE)
  - pv-plant produces from the first day on green electricity at the citizens homes
  - citizens save from the first day on electricity costs on their bills

INITIATIVES AT PRIVATE LEVEL

Rooftop Programme

- The results :
  - High demand
  - The 50 Rooftop Programme has been offered for 3 years in a row
  - 150 private pv-installations could be handled through the programme
  - Multiplier effect and additional pv-implementations cannot be precisely evaluated

INITIATIVES AT COMPANY LEVEL

“Rental Model” for commercial pv-investments

- How it works :
  - A company (e.g. EEE) rents a roof area of a commercial building/hall for the construction of a pv-plant
  - The commercial company gets a fixed rent per m^2 roof area for a fixed period
  - The operating company builds a pv-plant on the roof area
  - pv-plants is operated for the production of green electricity for a certain period of time (e.g. duration of the feed-in tariff – 13 years)
  - After this period the plant becomes the property of the commercial company that owns the building/hall

INITIATIVES AT COMPANY LEVEL

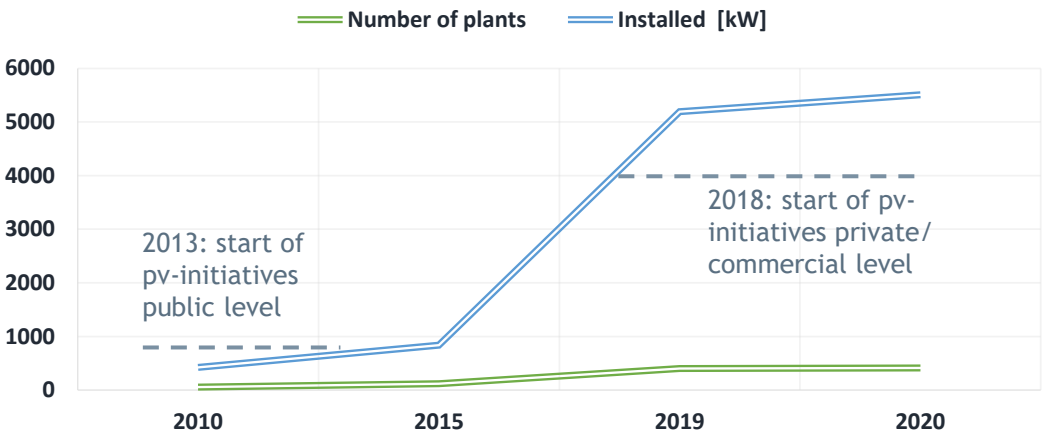
“Rental Model” for commercial pv-investments

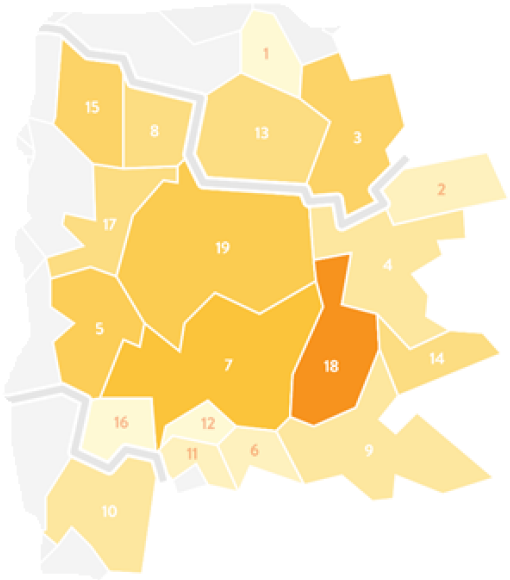
- Advantages:
  - Positive image promotion for the business through the generation of green electricity
  - The company receives rent for the roof area (guaranteed rental income)
  - Transfer of the PV system to the OWNERSHIP of the company after a fixed period (e.g. 13 years)
  - No equity capital required
  - From the 14th year, another 15-25 years of income from the sale or own use of pv-electricity

RESULTS

PV-Development in the EcoEnergyland

- Installed pv-capacity:
  - 2000: 60 plants / 450 kW_{peak}
  - 2015: 120 plants / 850 kW_{peak}
  - 2019: 400 plants / 5.200 kW_{peak}
  - 2020: 460 plants / 6.000 kW_{peak}





THANK YOU FOR YOUR ATTENTION!

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