Co2mmunity: Community Energy Projects

Community energy projects offer enhanced production of renewable energy from local sources (wind, solar, biomass, hydropower, geothermal) through active participation of local communities. Together, citizens co-finance, co-develop, and co-operate renewable energy plants, and foster sustainable energy distribution.

1. Title of the project *

Energy Plantations in Gražiškės eldership, Vilkaviškis region

2. Country *

Lithuania

3. Location (city, village, etc.), address *

Gražiškės, Vištyčio erlerships, Vilkaviškis regional municipality

4. Short description of the project (3-5 sentences) *

Replacing old heavy fuel oil boiler-houses with new biomass ones in small towns and villages increased the need for new biomass resources. Gražiškės community in surrounding eldership owned lands not appropriate for farming needs, with hilly area, where farming is not favourable due to lots of rains of drought, and small farms are dominating. Thus the community and several small farmers came to decision to initiate energy plantation.

5. Type of community

- ○ Urban
- ◉ Rural

6. Type of project *

- ☐ Renewable electricity
- ☐ Renewable heat source
- ☐ Energy efficiency or energy saving (renovation of buildings etc.)
- ☐ New technology piloting
- ☑ Other: Production of solid biomass fuel, training and education

7. Technologies *

- [ ] Bio CHP plant
- [ ] Biogas reactor
- [ ] Biomass boiler
- [ ] Central heating system
- [ ] Demand response automation system
- [ ] District heating network
- [ ] Electric battery
- [ ] Electric vehicle charging station
- [ ] Energy efficient windows, insulation etc.
- [ ] Heat pump for heating and/or cooling
- [ ] Internet application related to energy system or service
- [ ] Micro-grid
- [ ] Solar heat collectors
- [ ] Solar PV system
- [ ] Thermal storage
- [ ] Wind turbines
- [x] Other: Solid biomass production for heating boilers; training and education

8. System / service / outcome pictures (please write a link(s) to pictures)

Available in brochures

9. Ownership model

- ( ) Fully financed and owned by a community
- (•) Received financial support for investment and fully owned by a community
- ( ) Participation through buying shares
- ( ) Co-operative membership
- ( ) Participation through aggregator or other energy service provider (individual contract)
- ( ) Other:

10. Main stakeholders of the project

Private farmers;
Public institution (Gražiškės, Vištyčio eldership communities);
Members of Lithuania's Biomass Energy Association (LITBIOMA).

11. How was the project funded? (several answers possible)

- [ ] Community funds
- [ ] Bank loan
- [ ] Subsidies
- [ ] Government grant
- [ ] Municipal grant
- [ ] European funding
- [ ] Crowdfunding
- [x] Other: Private outside funding

12. Type of benefits and investment motives

- [ ] Direct income from selling energy
- [ ] Energy and cost savings
- [ ] Income from shares
- [ ] Climate and environmental benefits
- [ ] Adoption of new or smart technologies
- [ ] Improvement of indoor air quality or other living conditions
- [x] Improvement of local economy
- [x] Increase of community resilience
- [x] Other: Dissemination of knowledge from production of the new type of biomass fuel

13. How was the rest of the community involved in the project? (several answers possible)

- [x] Participated in discussions
- [ ] Opposed the project
- [x] Supported the project
- [x] Participated in the decision-making
- [x] Received a revenue share
- [ ] Was not involved in any discussions

14. Did you receive help from any organisation, public institution or other similar project? If yes, from whom and how did they help you?

Members of LITBIOMA and agriculture experts - provided knowledge, supported with funding and willows seedlings with the aim to initiate energy plantations and spread knowledge and initiate promotion.

15. Lessons learnt (NIMBY, institutional barriers, financial barriers, regulative barriers, etc.). How the project became successful after all? Any advices for other community energy project managers?

This case supported and promoted cooperation and joint activity among the community members, problems with draining systems

16. Website link

www.dvi.lt/download.php/fileid/102 ; https://ec.europa.eu/lithuania/sites/lithuania/files/sugauta_siluma_ikinkytas_vejas.pdf

17. Contact information *

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Technical and economic details

Technical and economic details of community renewable energy project.

TECHNICAL DETAILS: 1. System size or purchase volume (kW, MW, amount of units): *

30 ha plantation

2. System installation or product adoption time: month/year *

2006 started

3. Expected system or service lifetime

30-40 years

4. Energy production or savings/year

600000 kWh approximately

5. Who is taking care of the Operation and Management?

about 200 families of the rural communities

ECONOMIC DETAILS: 1. Investment or purchase cost:

42010 Euro

2. Operation and Management cost/year

N/A

3. Total amount of subsidies received

42010

4. Economic feasibility: Internal Rate Of Return (IRR), Net Present Value (NPV), Payback Period

N/A