



Women in Europe for a Common Future | WECF

Energy Cooperatives And “Citizen’s Energy” For a Sustainable Future

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WECF - Women in Europe for a Common Future
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Agenda

- Best Practice Examples:
 - Wind
 - PV
 - Local Heating Systems
 - Energy Consulting
 - Efficient Lighting
 - Direct Marketing
 - Gender sensitive cooperatives in Georgia
- Benefits of Citizen's Energy

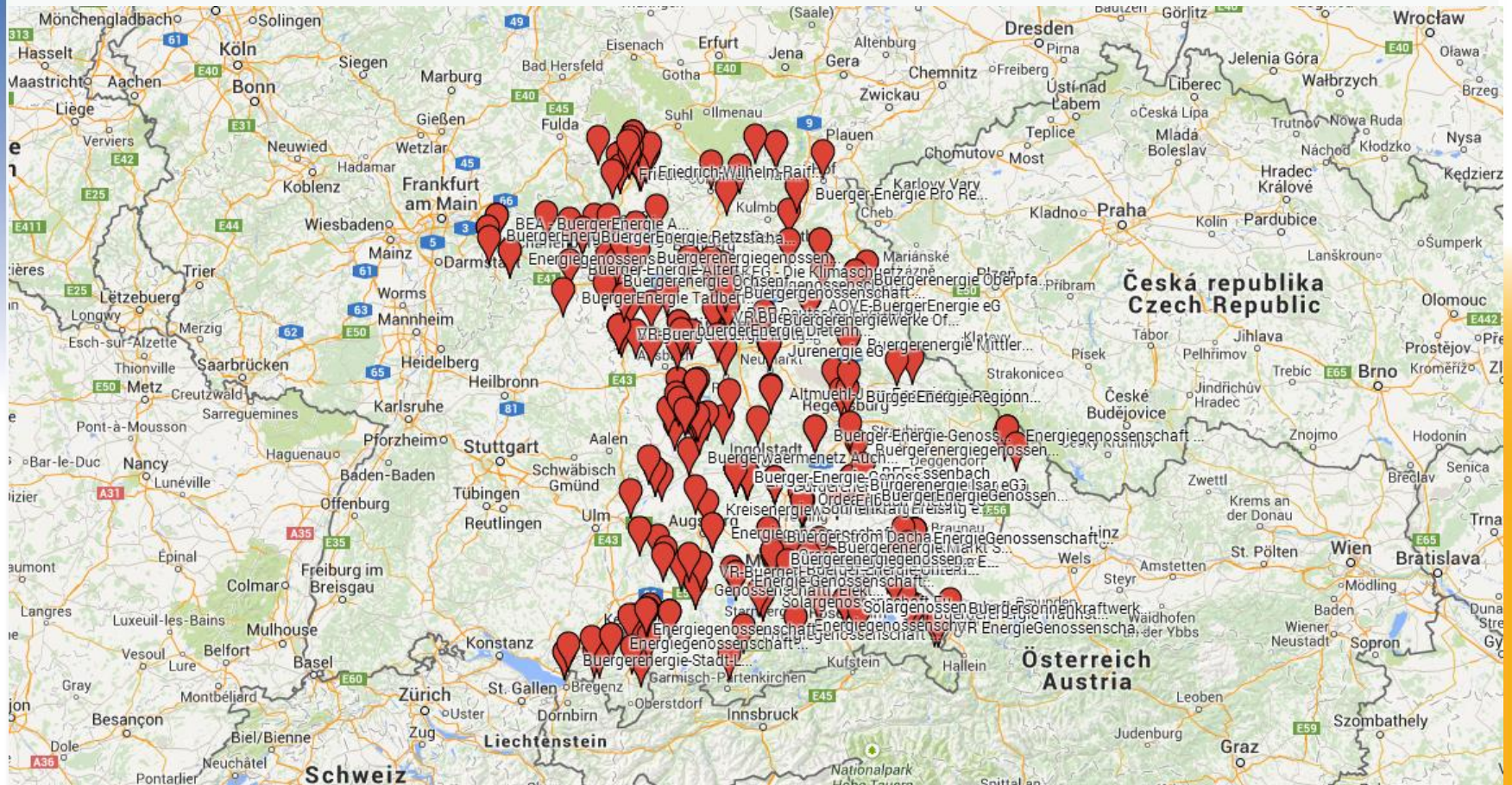
Best Practice Examples

Energy Cooperatives in Bavaria

237 out of 888 Energy Cooperatives in Germany are located in Bavaria (2014)



Best Practice Examples Energy Cooperatives in Bavaria



Best Practice Examples

Photovoltaic



NEW eG

- Relatively low investment, very popular, good start
- Ground-mounted systems or roof PV on municipal buildings
- Municipal e-car fleets
- Cooperation with local utilities

Cooperation of municipalities, Landkreis Neustadt a.d. Waldnaab
1.346 members
500€/share

Own electricity tariff

Best Practice Examples

Photovoltaic

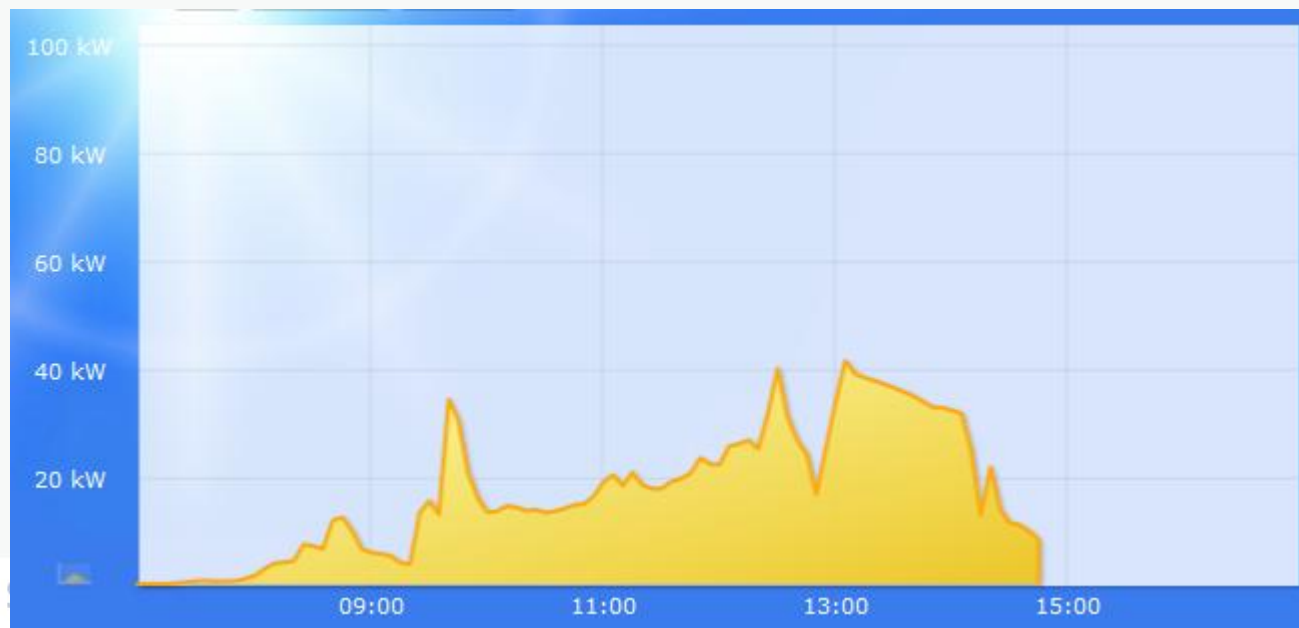
Roof new Gym:

Owner of Building: Pressath municipality

Commissioning: 2010

Installed capacity: 93,78 kWp

Output: ca. 86.277 kWh/year (22 households)



Best Practice Examples

Wind Power



- Relatively high investment, not very well established
- High cost of planning, surface acquisition, approvals etc.
- Complex process, many obstacles

Freisinger Land eG

Landkreis Freising,
Municipalities,
associations, business
(including local utility)

520 members

500€/share

Best Practice Examples

Wind Power



Citizen's wind power plant
Kammerberg:

Size: 3.000 kW

Type: Enercon E-115

Output: 6.200.000 kWh/year

Opponents argue:

- Too high
- Shadow
- Light emissions at night
- Noise
- Infrasound causing illness
- Endangering flora&fauna
- ...

How to convince them?

Best Practice Examples

Local Heating Systems



- Centralised generation in CHP (combined heat and power station) using biogas, wood, vegetable oil...
- Decentralised use of Electricity and Heat
- Co-Generation of Electricity and Heat very efficient

Feldheim

Self-sufficient energy production

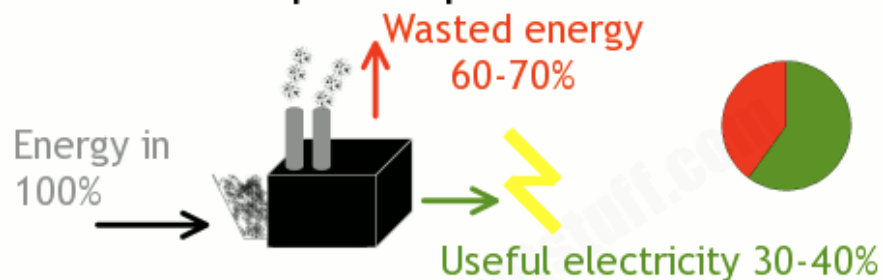
Economic chance for poor rural region

Community-driven project, development over years

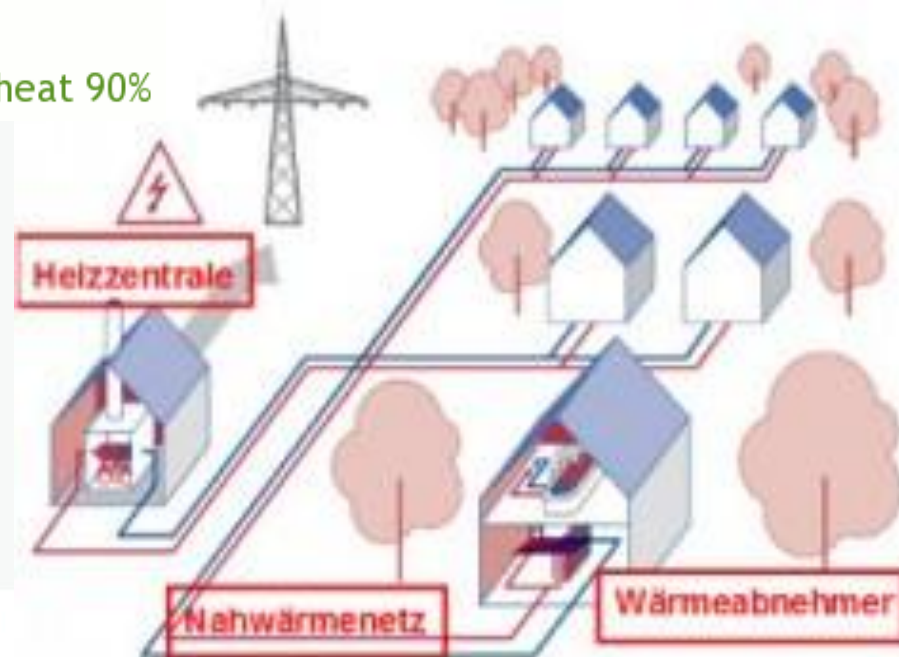
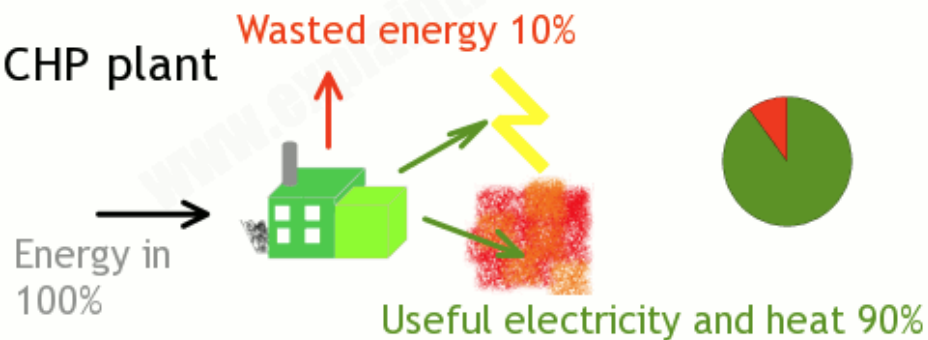
PV, Biogas (farm coop), Wind (+storage pilot), wood CHP

Conventional power plant

www.explainthatstuff.com



CHP plant



Best Practice Examples

Energy Consulting



- Up to 80% energy saving potential in buildings
- Broad offer, benefits for members (pay less)
- Qualified experts

Jurenergie e.G.

Landkreis Neumarkt i. d. Opf., 14 municipalities involved

500€/share

879 members

Wind, PV, Energy Consulting

Best Practice Examples

Energy Consulting

Target group:

Private households, municipalities, business

Measures:

- Investive (insulation of windows/walls/roof)
- Non-investive (behaviour/awareness raising, hydraulic balancing of heating system)
- Information about funding possibilities

Best Practice Examples

Efficient lighting

Enormous saving potential
compared to conventional
lighting



Fünfseenland

Herrsching, Bavaria (5
lakes south of Munich)

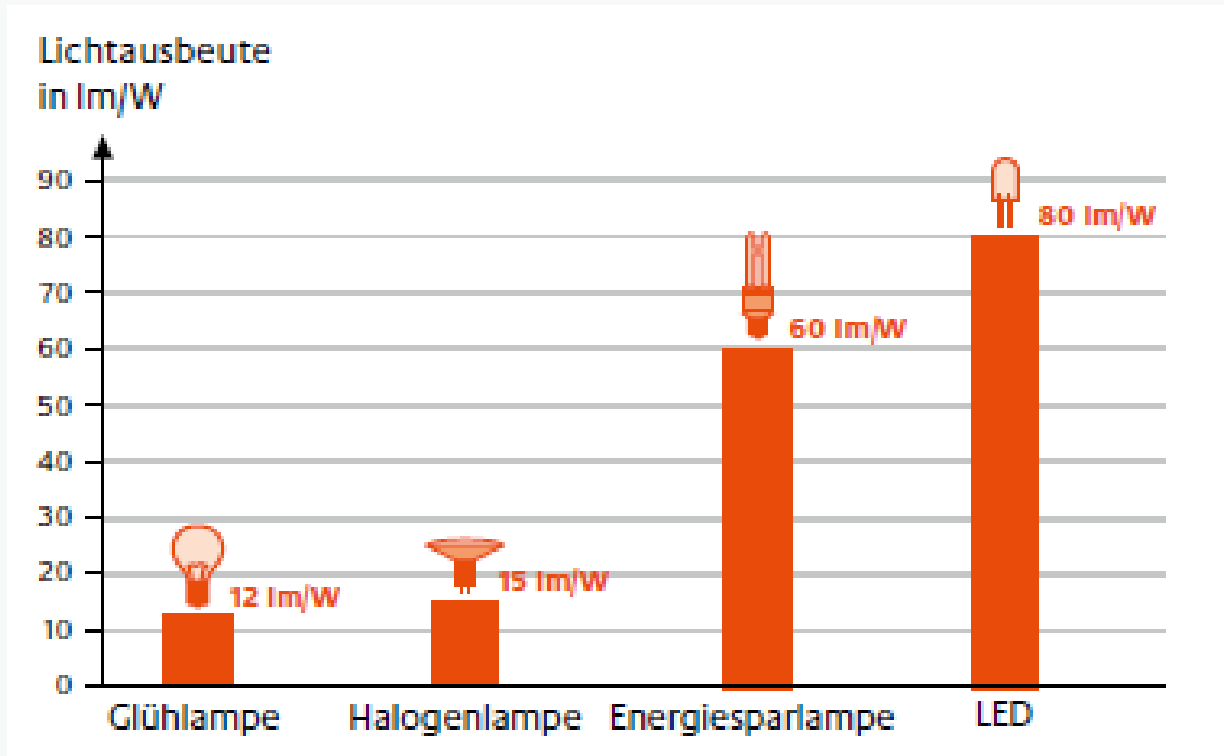
Initiative out of local
“Agenda-21”-Process for
sustainable development

Founded 2011

500€/share

Best Practice Examples

Efficient lighting



How much light do you get out of the same amount of electricity?
LED (Light Emitting Diode) is efficient, robust and versatile. Suitable for both indoor and outdoor lighting.

Burn time : ca. 15.000 Hours. Energy efficiency class A or better.

Best Practice Examples

Direct Marketing

- Independence: no FiTs or other subsidies necessary
- high bureaucracy (legal conditions, contracts)
- Cooperation with municipal/local utilities or established green power suppliers

Bürgerenergie Bayern e.V.

Citizen's energy association in Bavaria

bavariastrom = electricity product jointly developed by Bürgerenergie Bayern and Grünstromwerk

Direct marketing using bavariastrom possible für members

Best Practice Examples

Direct Marketing

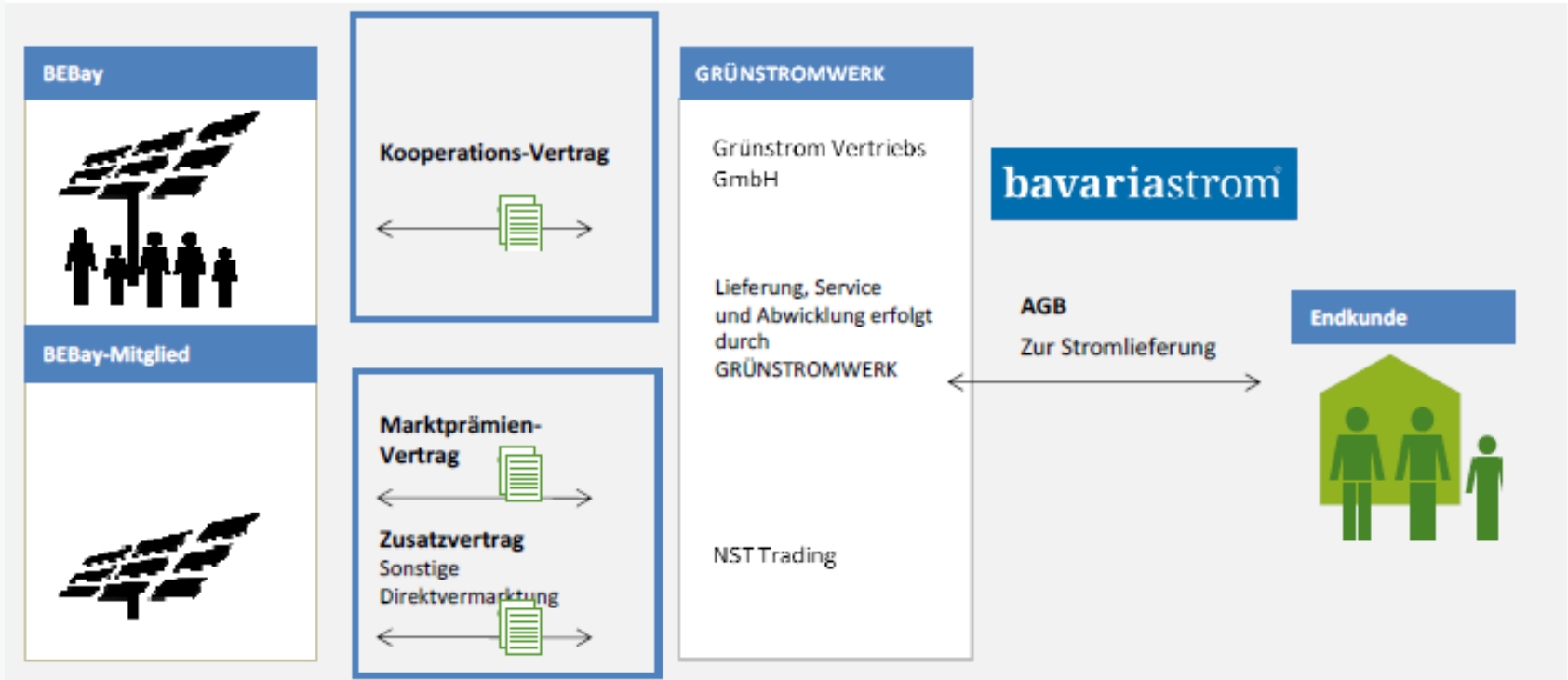


bavariastrom®

- Newly developed product for a different way of marketing (FiTs in Germany shrinking, getting less attractive)
- Regionally produced power put of Wind-, PV- and hydro power plants
- Price: 24,49 ct/kWh to 27,49 ct/kWh + 7,95 €/month

Grundpreis 7,95 Euro/Monat

Vertraglicher Rahmen zur Stromlieferung





Freiheit aus der Steckdose

www.bavariastrom.de



Resume – Business options

- Production: Configuration or management of RE plants
- Consulting
- Direct Marketing
- Buy local grid
- Local heating systems
- Concepts for power consumption/independent power supply (housing, business)

Resume – Factors for Success

Legal/Political

Favorable legal framework (FiTs, setting-up organizations etc.)

Demonopolization and democratization of the energy market

Technology/Costs

Sinking costs thanks to ongoing development of technology + high invest of cooperatives triggers economies of scale

Commitment

Broad participation of local people
Take advantage of existing capital
High credibility

Awareness Raising

Energy = scarce resource
Educating responsible consumers or even “prosumers”

Gender sensitive cooperatives in Georgia

- Decentralized production of renewable energy and enhancement of energy efficiency
- 3 Workshops – November and December 2015, March 2016
- Trade possibilities for sustainable energy supply
- Establishment of 4 cooperatives between Dec. 15 and March 16
- Trainings on renewable energy technologies for women and by women
- Business acquisitions and leadership positions for women in the cooperative
- Increase of life quality and labor security in rural areas

Gender sensitive cooperatives in Georgia

Partners/Stakeholders: Energy Advisory Centers in Khobi, Khoni, Akhaltsikhe and Mzcheta, environmental organisations GREENS Movement of Georgia (Friends of the Earth), RCDA, SDCA and SEMA



Advantages for the members



Gender sensitive cooperatives in Georgia

Agreed and initiated actions:

- Solar collectors
 - For Members: free of charge advisory and distribution of corresponding information
 - Building, Installation , Service and Maintanance of Solar collectors
- Energy advisory
 - For Members: free of charge and regular information meetings and material distribution
 - Energy audits for extensive actions (energy saving) and intensive actions (f.e. Infrared cameras) for private households, communes and enterprises

Gender sensitive cooperatives in Georgia

Agreed and initiated actions:

- Solar dryer of agricultural residues
- Photovoltaic installations
 - Small demonstration installations in schools and kindergartens with support from financial aid programs

Gender sensitive cooperatives in Georgia

Working plan

Business Plan

- Offered products: Solar collectors
- Market analysis
- Transparent marketing strategy
- Product and service description
- Amortization calculations
- Cooperation with support organization

Creation of Coops

- Meetings in municipalities
- Creation-group meeting
- Draft Paper of meeting
- Name, Logo... of Cooperative
- Registration by notary

Admin

- Chair and supervisory board
- Competence and authority
- Head office of the Cooperative
- Cooperation with other Cooperatives and Resource-Centers

Partici-pation

- Planning for the members number
- Bank account
- Application form
- Process of compensation payments and confirmation
- Regular information distribution

Marketing

- Flyer
- Product description, guarantee, contracts
- Financing possibilities with cheap loans
- Communication network
- Movie
- Presentation days
- Meetings with local and national politicians

Financing

- Promotion of international members
- Application for Georgian financial aid programs (app. 5000 Lari)
- International aid

Control and monitoring group

- Lobbying (agricultural associations, tax free performance, politicians as members)
- Consulting
- E-Cooperative, presentations, media communication

Goals to be achieved in Georgia

- ✓ Economic and social empowerment (saving costs and time for fuel)
- ✓ Expand Renewable Energy technologies (e.g. solar collectors, energy efficient stoves, solar dryers, biogas digesters) with high quality and quantity
- ✓ Give access to these technologies for citizens, especially women
- ✓ Service & consultation for communities in the renewable energy and energy efficiency sector
- ✓ Expand the local value chain / generate employment for women and men
- ✓ Build-up technical know-how
- ✓ Increase women's participation in public life through awareness raising of women and men
- ✓ Create safe and climate friendly energy supply for women & other citizens

Benefits of Citizen's Energy

Socially

- Integration in sustainable economy patterns
- Commitment: Added value through active participation rather than passive consumption
- Early and active participation of locals increases acceptance for RE projects
- Participation and involvement: prosumer
- Ownership feeling: establishing bonds to community and region

Benefits of Citizen's Energy

Economically

- Diversity of actors: democratic energy market is less dependent on few big suppliers
- Implementation highly dependent on what happens locally
- Innovation: Citizen's projects drive progress
- Level up and a broader distribution of regional value chains
- Creation of jobs
- Basis and showcasing for competitive RE market

Public welfare

- In contrast to big companies, citizen's initiatives and energy cooperatives do not only target maximum return but what is good for their members in the long run → Sustainability

THANK YOU!

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