



(Danida Market Development Partnerships)

RURAL PEOPLE COOPERATION ON HARVESTING OF FIELD RESIDUALS FOR BIOGAS ENERGY PRODUCTION IN UKRAINE *(the brief, full version is available from authors)*

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Project Summary

Project is aimed to develop alternative energy (biogas) production according to Ukrainian National Energy Strategy for period of 2015 based on wide involvement of local people on cooperative basis into harvesting of field residuals and other income fuel for biogas station.

Cooperation of rural people suggests employment and decent work for local people, including young people and persons with disabilities (SDG 8.5, 8.6). Higher levels of economic productivity are achieving by usage of crops residuals and saving of natural resources (SDG 7, SDG 13). Usage of modern biogas stations means technological upgrading and innovative development of national energy sector of Ukraine (SDG 8.2). Commercial objective refers to additional income for agrarian producers, internal usage of energy and delivering of energy to national electricity grid on privileging tariff.

Context in which the project will operate

Energy sector in Ukraine in its modern state had been formed by 1970s with 5 nuclear, 15 gas and 12 hydro electric power stations. Right now it is extremely amortized and dangerous for air and nature. Sources of alternative energy – biogas, wind, solar etc. are coming into life, but this process is too slow, insufficient and unsustainable due to hard domestic economic situation.

At the same time, extended production of main agrarian commodities causes huge volume of field residuals. It demands additional unproductive processing and expenses from agrarian business. Residuals often simply are put on open fire.

On the other hand, local people are owners of agriculture land spots and grant it on lease for agrarian business to produce main crops.

Development of local biogas electric power stations with wide involvement of local people into gathering of field residuals is a good solution for the problem of useful utilizing of crop residuals and growing of income for local people (land rent payments are not sufficient for their current life).

Financial capacities of middle agrarian business usually are sufficient for to buy of biogas station.

Coherence with national policies and strategies

The project refers to national official documents:

- Strategy of Sustainable Development 'Ukraine-2020',
- Energy Strategy of Ukraine for period to 2035,
- State profile program on development of agrarian sector of economy for period to 2021,



Status of the enabling business environment

There are a full range of laws and acts of national profile executive agencies as on development of alternative sources of energy as well as on corporative law and agrarian cooperation. The main laws are:

- 'On alternative sources of energy', enforcing tariff privileges for electricity from alternative sources and for usage of equipment from domestic producers,
- 'On cooperation', 'On agrarian cooperation', 'On customer cooperation', package of 'cooperative' laws presents all necessary provisions for establishing of cooperative,
- 'On limited liability and additional liability companies', amended February, 2018 suggests preventing and more easy solving of corporate conflicts.

In addition, agrarian cooperatives are subject for state budget donation for buying equipment from domestic producers – up to 70% of the price. As well, there are a number of state programs compensating high domestic credit rate with real rate for agriculture producers 1-1,5%.

Long term impact

Project on building capacity for production biogas electricity will last 10 years at least. Core idea of cooperation may be used further as biogas equipment get old and replaces.

Vision of the project in a 5-10-15 years outlook

In 5-year outlook we suggest to have working pilot model (local cooperative has necessary capacity for gathering of crop residuals, supply it to biogas station, crop producer delivers electricity to national grid), full package of documentation for dissemination of business model and start to propagate experience of the project,

In 10-year perspective we hope to have at least one working model in any of 24 oblasts (regions) of Ukraine.

In 15-years we would like to produce 30% of biogas energy by our business and technological model.

Expected outcomes

- model responding challenges on social and economic depressing of rural people in Ukraine will be developed and tested,
- the way for prevention of air pollutions caused by open fire on fields will be demonstrated,
- alternative energy sources, biogas stations will get further practical development

Key results and key preliminary indicators

- up to 75% of rural people in every of 3 villages in Vinnitsya oblast will participate in cooperative on gathering income materials for biogas stations,
- 3 biogas stations financed and owned by local agrarian business will be put onto exploitation in Vinnitsya oblast,
- share of burning of residuals within 10 000 hectares will be diminished from 70-90% to 1-2%.