Project Title: *"Attaining low-carbon energy access solutions for all"*

Grantee name: "Armenian Green Technologies Center" Foundation

Project duration: 8 months

Grant amount: 50.000 USD

1. Project Description

Promoting demonstration, dissemination and commercialization of low-carbon technologies through construction of solar power stations, operating parallel to the electricity network.

The amendments made in 2016 into the Law of the Republic of Armenia concerning "Energy saving and renewable energy" are important for the development of solar power, which provides any economic operator an opportunity to have up to 150 kW solar power, running parallel to the grid.

Taking into consideration the above-mentioned law amendments and the second stage of "Green energy for "green" socio-economic progress in Shirak marz" project (which among other things provides small grants for "green" facilities) the construction of 24 kW capacity solar stations is proposed in 1 socio-educational, 1 educational and 1 resource center in Gyumri.

The "Trchounyanc tun" NGO in Gyumri deals with socially vulnerable families and orphan care. The organization's beneficiaries are 6-18 year-old 80 socially vulnerable girls and boys. Fifty employees are involved in childcare, education and upbringing of these children. Twenty-two children stay at night, and others - from morning till evening.

The "Ardzaganq" kindergarten CNPO, which currently has 204 pupils within the frames of "Green energy for "green" socio-economic development in Shirak marz" project, has won a small grant for installing a solar water heater system. The directorate of the primary school has undertaken the obligation to make discounts or yield the fees for children from socially vulnerable families through savings expected from solar water heating installation. The primary school uses 350 kW*h electricity per month, which is about AMD 18,000.

"Armenian Green Technologies Center" foundation was founded within the frames of the "Green energy for "green" socio-economic progress in Shirak marz" project. It serves Shirak region and carries out consultation and educational activities in the spheres of renewable energy sources /RES/ and energy efficient /EE/ technologies in Armenia. A department of educational-demonstrative models was established in the center. At present, an experimental manufacturing sector is going to be established for the RES models and equipment, which will operate on 400 kW*h energy monthly.

2. **Describe the involvement of youth in the project**

Beneficiaries aged from 16-18 from “Trchunyanc Tun” NGO together with project team will build the solar power basis and support base. The action also promotes transfer of knowledge, as well as performance of the procedures; objectives will be explained by the members of project team. The center will also organize a master’s education program for young people, students and other stakeholders.

3. **Describe what socio–economic or alternative livelihoods activities will be carried out as part of the project**

Guiding benefits

“Trchunyanc Tun” NGO will form a revolving fund with saved money, aimed at increasing energy efficiency of the building, as well as giving the students’ knowledge and skills to use RES and EE technologies.

There will be activities at expense of the saved money, aimed at increasing energy efficiency at “Ardzaganq” primary school (replacement of windows, improvement of lighting system, etc.). The "Armenian Green Technologies Centre" Foundation, activities of which were initially aimed at clarification, education, and dissemination of the possibilities of implementation of RES and EE technologies, will realize at the expense of the saved funds analysis of programs, carried out by different donors in the spheres of natural conservation, social security and economy. The obtained results will be reliable fundamental data for further optimal development of the filed policy.

4. **Describe what activities have been used to include significant Participation of Indigenous Peoples, for example use of local languages, participatory video, etc.**

There are sufficient conditions for the knowledge transfer and upgrade of technological solutions during the project implementation and after its completion. As already mentioned, "Armenian Green Technologies Center" Foundation, which was founded in 2016, is engaged in research and dissemination of the practices, related to RES and EE technologies. It has created RES demo department and deals with the preparation and testing of prototypes of various technological solutions in the field of RES. The above-described opportunities are available to students, masters, individuals, and a wide range of public.

Additionally, within the framework of GEF SGP funding its partner “Ferti” NGO in Gyumri branch of “National Polytechnic Universality of Armenia”, established “Renewable energy and energy efficient technologies” educational laboratory in 2013, which currently operates, and young people transfer relevant knowledge in the field of RES and EE. Guidelines and brochures will also be published during the project implementation to make the technological solutions more available and to illustrate the potential options of their use. Materials about the program will also be posted on the new website of the foundation.

5. **Policy Impact: Does the project plan to produce Policy Impact? If so how? What is the intended result?** ***[i.e. - the impact made by SGP projects through policy development and implementation that results in real impact on the ground in terms of***

***the improvement in the environment (ecosystem integrity or quality services, water quality, climate mitigation etc.) or human behaviors that lead to the improvement of the environment]*;**

"Armenian Green Technologies Center" Foundation is one of the leading organizations in the Republic of Armenia in the sphere of renewable energy and energy efficiency, which has a significant contribution in green technologies, renewable energy, energy efficiency and environmental approaches/ideas and dissemination of information, research, education and training of professionals, introduction and dissemination of green technologies.

"Armenian Green Technologies Center" Foundation's activities are guided by the principles of public usefulness, social responsibility, mutually beneficial partnership and fair competition, aimed at achieving of social and economic problems resolving in the country, as well as development of renewable energy and energy saving sector.

6. **Please describe the Capacity Needs of the grantee based on the Capacity Assessment and describe what capacity building activities will be carried out as part of the grant**

During its activities the organization is guided by the principles of searching for and implementing innovative solutions, as well as transferring knowledge. For the realization of these practices many opportunities are provided by the experimental production department of the "Armenian Green Technologies Center" Foundation within the program of 'Green energy for "green" socio-economic progress in Sirak marz', the purpose of which is to carry out preparation and experimentation of RES and EE prototypes. This will become the best platform for developing and transferring knowledge and experience to young specialists. The company's activities and programs are mainly aimed at improvements of social, educational, and economic issues and efficient management of energy resources.

7. **Describe the roles of women and men in the community, if there is an unbalance, explain how the project will address it and how both men and women will benefit from the project.**

The project beneficiaries belong to different gender groups, particularly, 40% of students are girls, and 60% are boys at "Trchunyanc Tun" NGO, 8 employees are male, while 42 are female, and they are directly linked to the students' educational and nurturing activities. "Ardzaganq" kindergarten department has 204 students, both girls and boys, and 28 instructors and service staff are engaged in the educational-nurturing activities of the students. The "Armenian Green Technologies Center" Foundation, which was founded in 2016, is engaged in the research and dissemination of the practices related to RES and EE technologies. It has created RES demo department, deals with the preparation and testing of prototypes of various technological solutions in the field of RES. The above-described opportunities are available for students, masters, individuals, and a wide range of public.

8. **What is the Communications strategy of the project to promote Public Awareness?**

Guidelines and brochures will also be published during the project implementation to make the technological solutions more available and to illustrate the potential options of their use. Materials about the program will also be posted on the new website of the foundation.

9. What is the knowledge management strategy of the project? How do you plan to share and capture knowledge? What is the knowledge product that will result from the project?

There are sufficient conditions for the knowledge transfer and upgrade of technological solutions during the project implementation and after its completion. As already mentioned, the "Armenian Green Technologies Center" Foundation, which was founded in 2016, is engaged in the research and dissemination of the practices related to RES and energy efficient technologies. It has created RES demo department, which deals with the preparation and testing of prototypes of various technological solutions in the field of RES. The above-described opportunities are available for students, masters, individuals, and a wide range of public.

Additionally, within the framework of GEF SGP funding its partner 'Ferti' NGO established 'Renewable energy and energy efficient technologies' educational laboratory in Gyumri branch "National Polytechnic University of Armenia" in 2013, which currently operates, and young people transfer relevant knowledge in the field of RES and EE.

10. Policy influence: Does the project, through its experiences or best practices, "influence" central/local government policy-making processes and provide "inputs" to policy development or formulation?

As far as the PV power stations will be working on newly-introduced net metering principle there may be some recommendations developed by project staff for improvement of the agency acts (e.g. Public Services Regulatory Commission) based on the gained experience.

11. Replication of project activities

The findings of the project are important not only for the evaluation of the program efficiency, but also for the design and development of productive systems. Given the fact that changes on RA Law "On energy saving and renewable energy" have been made, it is necessary to ensure the correct use of figures, obtained as a result of the project implementation and monitoring for the replication purposes. The budget amount requested from SGP mainly includes the costs related to specific technology, while costs indirectly related to technology within the project framework are carried out through other finances. This approach will make the project expenses more visible and understandable and will easily assess the payback period. The presented activities will make it possible for different businesses to evaluate and replicate the technology.

12. Planning to scale up through non-GEF grants

"Armenian Green Technologies Center" Foundation, activities of which were initially aimed at clarification, education, and dissemination of the possibilities of implementation of RES and EE technologies, at the expense of the saved funds will realize analysis of programs, carried out by different donors in the spheres of natural conservation, social security and economy. The obtained results will be reliable fundamental data for further optimal development of the filed policy.

13. Project sustainability

The prerequisite for ensuring the sustainability of program "Armenian Green Technologies Center" Foundation is the main strategic directions of activities:

1. Development of proposals on RES technologies, equipment design and manufacturing, installation and mounting.
2. Energy efficient reconstruction of buildings by application of EE technologies, improving EE in buildings.
3. Introduction, adaptation, elaboration and application of new technologies in the field of agriculture and environmental protection.
4. Conducting research in the field of green technologies, manpower development and training, consulting. Organizing discussions, conferences and seminars.
5. Cooperation with international donor organizations, state and local government bodies, directed to the elaboration and implementation of joint projects on development of green technologies in Armenia.

14. Planning to scale up to a medium-sized GEF grant

The amendments, made into the RA Law ”On energy saving and renewable energy’, play a significant role in increasing the capacity of constructed systems (any business must have up to 150 kW solar power plant and operate it along with the grid).

15. Linkages with large GEF projects

“Armenian Green Technologies Center” Foundation collaborates with the Climate Change Information Center, which was established in 1997 in the frames of ARM / 95 / G31 / A / 1G / 99 UNDP / GEF Project "Armenia - Country Study on Climate Change" framework.

16. Project Results

- ‘’Trchunyanc Tun’’ NGO has a 16 kW solar power plant, equipped with monitoring measuring equipment’s.

- “Trchunyanc Tun” NGO will form a revolving fund with saved money, which is aimed at increasing the energy efficiency of the building and educating the students with the knowledge and skills of using RES and energy efficient technologies.
- The "Ardzaganq" kindergarten CNPO equipped with 4,5kW solar power plant.
- At the expense of the saved money, there will be activities aimed at increasing the energy efficiency at “Ardzaganq” kindergarten CNPO (replacement of windows, improvement of lighting system, etc.).
- “Armenian Green Technologies Center” Foundation’s solar power plant capacity will be added by 4 kW, equipped with monitoring measuring equipments.
- In addition to educational and consulting activities, AGTC also implements the preparation of prototypes in the sphere of RES and EE, in the result of work of the station the saved money is aimed at improving the centre’s activities.
- Inventoried and analysed various projects and programs of environmental, social and economical impacts by AGTC, which are available to the public and wide range of economic operators.