

CDM – Executive Board

SECTION A. General description of small-scale project activity

A.1 Title of the small-scale project activity:

Samryangjin PV(photovoltaic) Power Plant.
Version 03
11 Nov 2008

A.2. Description of the small-scale project activity:

Samryangjin PV Power Plant is a grid-connected photovoltaic power plant installed inside of the unused land at the lower dame of Samryangjin pumping-up power plant in Kyongsangnam-do, Republic of Korea.

Because the solar energy doesn't emit pollutants into the atmosphere, nor does it emit residuals that can have an impact on soil and water, it becomes popular over the world as one of the clean renewable energy sources without being exhausted. Also currently in Korea, they make efforts to reduce fossil fuel usage in various ways and their concerns about the renewable energies including solar power energy are very high.

Under this situation the proposed photovoltaic power generation project is expected to contribute to decrease the usage of electricity generated by thermal power plants using fossil fuel which takes 59.47% of electricity generation in Korea based on 2006¹
And also the project will serve to develop and distribute the renewable energy technologies.

The project will be advanced by stages as the Phase I, establishment of 2MW solar pv plants and the Phase II, establishment of 1MW plant, thus total installed capacity of the project becomes 3MW. Therefore the project involves establishment of 3MW plant and expected annual power supply to the grid is 3,547,800kWh which will be connected to the Korea Power Grid and transmitted through the grid. The expected annual emission reduction is 2,215 tCO₂e on average.
The project activities consist of two steps as followings.

- Phase I (Step 1 ; 03. 2007 ~ 09. 2007) : 2MW
- Phase II (Step 2 ; 03. 2008 ~ 12. 2008) : 1MW

Besides answer to government policy for the diffusion of renewable energies and promotion of electric generation by usage of the idle land, the project contributes to sustainable development as below.

- Social aspects
 - The proposed project can diversify sources of electric generation and be a model case as a solar power plant that utilizes the unused land.
 - The proposed project will purchase the home-made articles and contribute to accumulate the experiences of design and construction for the plant. And also it will contribute to improve the

¹ Statistics of Electric Power in Korea,30.May 2007

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system efficient by developing the optimum technology for transmission & distribution of electric power and operating facilities.

- The project will apply the new technology such as introduction of waster sprinkler as a model case to protect modules.
- Economical aspects
 - The proposed project will create job opportunities directly or indirectly through construction and management of the plant.
 - The proposed project will create some venues from CERs by promotion of the project as a CDM project.
- Environmental and National aspects
 - The photovoltaic power plant replaces coal-fired power plants and contributes to reduce GHG emissions of the nation.
 - The plant will contribute toward improvement of air quality and better living conditions of the country by reducing the air pollution.

The PV generation facilities used in this project were imported from Germany and the advanced foreign technologies will be transferred and spread in this field after construction of the project. Though the project, the builder sought to import and development of the technology for management and control of the facilities.

And KWPCO who runs the facilities, can acquire more technological experiences and know-how for maintenance of the equipment. Also the operation technology for mass storage plant including the new technology used in the project will contribute to distribution of the photovoltaic power generation technologies to other domestic companies as a good precedent. Besides it will create job opportunities and take effect on related technologies in the country.

A.3. <u>Project participants:</u>
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<Table 1> Project participants

Name of Party involved(*) (host) indicates a host Party)	Private and/or public entity(ies) project participants (*) (as applicable)	Kindly indicate if the Party involved wish to be considered as project participants (Yes/No)
Republic of Korea (host)	Korea Western Power Co., Ltd. (KWPCO)	No

A.4. <u>Technical description of the small-scale project activity:</u>

A.4.1. <u>Location of the small-scale project activity:</u>
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A.4.1.1. <u>Host Party(ies):</u>

Republic of Korea

A.4.1.2. <u>Region/State/Province etc.:</u>
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