

SECTION A. Description of project activity

A.1. Purpose and general description of project activity

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Description of the proposed project activity

The project participant, Korea Western Power Co., Ltd (hereinafter referred to as 'KOWEPO' or 'PP') is one of the major electric power companies in Republic of Korea. And PP developed the 5.5MW Bundled Photovoltaic power generation project (hereinafter referred as 'the proposed project activity'), which is a grid connected bundled solar photovoltaic (hereinafter referred to as 'PV') project.

The total installed capacity is about 5.559MW (1,875.5kW+1,500.0kW+1,628.0kW+555.5kW) and the proposed project activity will provide 7,563MWh 1 of electricity to Korea Power Grid (hereinafter referred to as 'the KEPCO grid') every year. And the proposed project activity includes 4 PV power plants as follows:

- The 4km Bike lane PV Power Plant will deliver 2,551MWh electricity to the KEPCO grid annually with the installed capacity of 1,875.5kW. The estimated annual average emission reductions of the proposed project activity are 1,732 tCO₂e.
- The Sewage treatment PV Power Plant will deliver 2,041MWh electricity to the KEPCO grid annually with the installed capacity of 1,500.0kW. The estimated annual average emission reductions of the proposed project activity are 1,385 tCO₂e.
- The Waste landfill (II) PV Power Plant will deliver 2,215MWh electricity to the KEPCO grid annually with the installed capacity of 1,628.0kW. The estimated annual average emission reductions of the proposed project activity are 1,504 tCO₂e.
- The Rooftop PV Power Plant will deliver 756MWh electricity to the KEPCO grid annually with the installed capacity of 555.5kW. The estimated annual average emission reductions of the proposed project activity are 513 tCO₂e.

Thus, in the absence of the proposed project activity, 7,563MWh/year¹ of the electricity would have been supplied from the KEPCO grid. Finally, approximately 5,134 tCO₂e/year of GHG emission reduction will be realized on annually average during the crediting period.

Contribution to sustainable development

- Social aspects
 - The proposed project activity can diversify sources of electric generation and be a model case as a solar power plant that utilizes the unused land.
 - The proposed project activity will contribute to improving the system efficient by developing the optimum technology for transmission & distribution of electric power and operating facilities.
 - The proposed project activity supports the government policy which promotes development of renewable energy technology in Republic of Korea.
 - The 4km Bike lane PV power plant will be the Landmark and create a beautiful urban landscape.

¹ 5,559kW X 24 (hours) X 365(day) X 15.53% = 7,562.619 MWh/yr (Rounding to the nearest whole number)

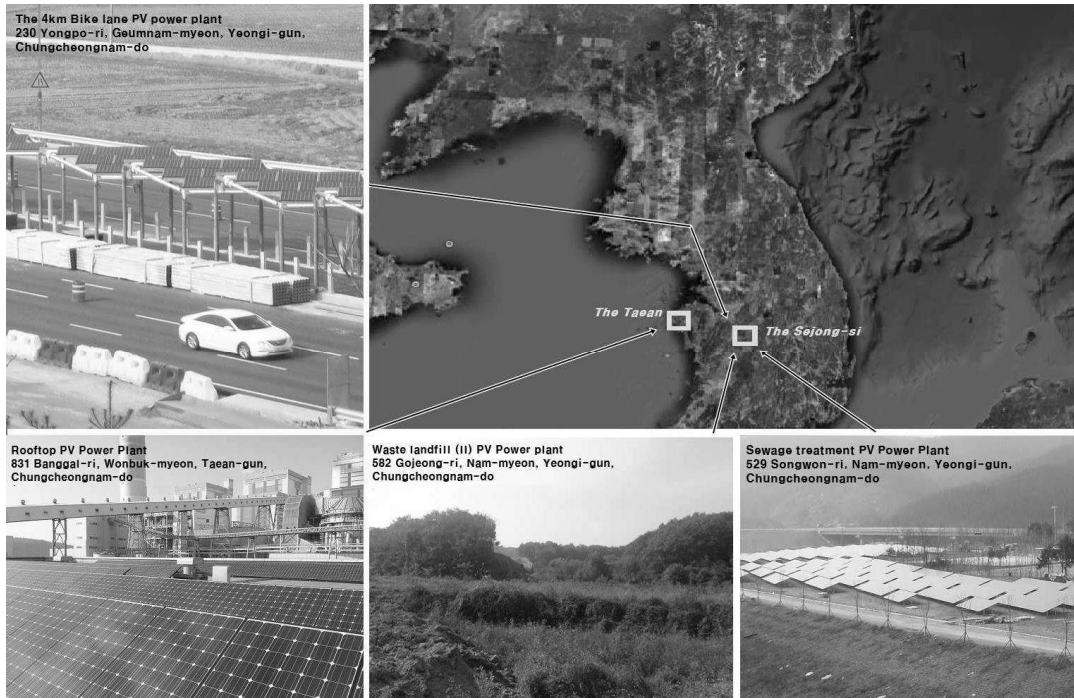
- Economical aspects
 - The proposed project activity will supply to the KEPCO grid with the available electric power and contribute to national energy supply.
 - The proposed project activity will create job opportunities directly or indirectly through construction and management of the plant.
 - The proposed project activity will create some venues from CERs by the proposed project activity as CDM project.

- Environmental and National aspects
 - The proposed project activity will contribute to improve of air quality and better living conditions of the country by reducing the air pollution.

A.2. Location of project activity

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The 4km Bike lane PV power plant, the Sewage treatment PV power plant, the Waste landfill (II) PV Power plant and the Rooftop PV Power Plant are located in Chungcheongnam-do, which is in the middle west of Korea. In the middle of the PV power plant, three PV power plants which are the 4km Bike lane PV power plant, the Sewage treatment PV power plant and the Waste landfill (II) PV Power plant are located in the Sejong-si. And the Rooftop PV Power Plant is in the Taean-gun.



- **The 4km Bike lane PV power plant** : 230 Yongpo-ri, Geumnam-myeon, Yeongi-gun
- **The Sewage treatment PV power plant**: 529 Songwon-ri, Nam-myeon, Yeongi-gun
- **The Waste landfill (II) PV Power plant**: 582 Gojeong-ri, Nam-myeon, Yeongi-gun
- **The Rooftop PV Power Plant**: 831 Banggal-ri, Wonbuk-myeon, Taean-gun

| Name of Plant | Latitude | Longitude |
|--|--------------------------------|----------------------------------|
| The 4km Bike lane PV power plant | 36.465065 °N ~ 36.424301 °N | 127.274648 °E ~ 127.294043 °E |
| The Sewage treatment PV power plant | 36.463533 °N | 127.246622 °E |
| The Waste landfill (II) PV Power plant | 36.531845 °N | 127.232480 °E |