

MINISTRY OF POWER & RENEWABLE ENERGY
CABINET MEMORANDUM

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The Establishment of Solar Power Park of 100MW in Siyabalaanduwa Area.

1.0 Background

Many nations of the world have paid their attention unprecedentedly, on generation electricity through renewable energy; accordingly, a considerable attention on generation of electricity from eco- friendly renewable energy has been paid. Accordingly, by the year 2016 the installed capacity of 271,400 MW from the installed electricity capacity of the entire world has been obtained from the solar power. Emission of destructive gas has been reduced about ton 300 million due to solar power energy in every year. Further, among the existing predictions, it is expected to obtain the installed capacity of the world of 756,100 MW from the solar power (Global Data's latest report). In this situation, research and their findings have proved that there is a possibility to generate electricity by utilizing solar power at a competitive level with the other conventional electricity generating sources such as Fossil Fuel, Coal, etc. while reducing the cost in massive scale for the energy sources. In that context the cost on the construction of power plants for the generation of solar power by 2025 will be reduced further.

According to the statistics of International Renewable Energy Institute, US D 1,810 was spent for establishment of a project of 1 KW of solar PV in 2015, but it has been predicted that the cost will be reduced up to US D 800 for a project of 1KW in 2025.

In the situation of establishment of solar power plants in the world, by obtaining benefit of the reduction of the cost of manufacturing solar power panels and other accessories and the increase of the efficiency of the panels, high economic benefits can be obtained through the introduction of solar power plants for the production of energy in this country.

When considering the solar power of Sri Lanka the amount of solar radiation receiving for square meter is 505kWh/m²/day. This condition is a situation that we are getting considerable amount of radiation when compared to the countries in the world.

2.0 Current Status of the solar power generation of Sri Lanka

At present approximately, 30MW solar facilities under the Net Metering and the solar power plants of 11.3MW which connected to the CEB network are available up to now in Sri Lanka.

Solar power generation in Sri Lanka is conducted in the ways mentioned below.

- i. Sooryabala Sangraamaya- the opportunity is given to generate electricity by solar panels fixed on all electricity customers' roof tops. Providing the opportunity of generating capacity of 100 MW by this, in coming 10 years.
- ii. Provision of opportunity for the investors of the private sector for projects of below 1MW. Purchasing electricity considering the standard price decided under this as the maximum rate.
- iii. Implementing solar power projects by selecting project developers, calling bids under competitive prices for the power plants of over 1MW.
- iv. Establishment of 03 solar power parks which contain 100 MW each.

3.0 Project Description

Primary studies for the establishment of a solar power park of 100MW at Siyambalaanduwa in Monaraagala have been conducted by the of Sustainable Energy Authority and measures have been taken to implement this project expeditiously with the purpose of obtaining more contribution of the solar power plants to meet the electricity demand in the future. However, in the event of the establishment of large scale solar power parks, the assistance of technology; it is required to obtain assistance of an expert organization in this field for the matters of management of fluctuation of solar power and identification of technology. Large amount of infrastructure should be developed when implementing project like these combining with the private sector. The government should provide primary infrastructure such as access roads for solar power parks, transmission lines, operational rooms, especially, when power plants are constructed by the private sector since several investors should invest within the solar power park. Therefore, the Ceylon Electricity Board has discussed with the World Bank for developing infrastructure by the government and establishing other common facilities. The World Bank has agreed to provide required technical support and financial contribution.

It is required to have a consultant at an international level to select an investor from the private sector, prepare required bid documents and for the commercial works which should be done including feasible studies. The International Monetary Fund (IMF) which is an affiliated organization of the World Bank has agreed to provide the consultancy service which is for the

selection of investors of the private sector. Herein, the International Finance Corporation (IFC) has agreed to submit a report of a broad study under the facts mentioned below after conducting a broad feasible study on due diligence of the project and the transaction implementation of this project.

i. Site Assessment

Search for lands that required for the solar power plants in compliance with the International Best Practices considering the environmental and social attentiveness and the collection of the data required to acquire those lands in this regard.

ii. Management of fluctuation of solar power and recommendation of more suitable technology.

Study on the suitable technology required to reduce the impact on power plant in the event of being established 100MW power plant due to the fluctuation of solar power and the recommendation of suitable technology.

iii. Technical Due Diligence

Proposal of a methodology of reducing financial impact and risk as per the configuration of applying panels according to the establishment technology of solar power plants, under this, identification of the contribution of the government and the required infrastructure are studied.

iv. Finance Due Diligence

It is expected to propose financial impacts on the various technological methods in establishing solar power plants to the Government of Sri Lanka/ Sri Lanka Sustainable Energy Authority and supplying various financial facilities and the proposal of risk reduction.

v. Legal Due Diligence

Herein, removal of restrictions for participation of the private sector investors, developers of this process identifying the barriers and limitations.

vi. Request for qualifications for obtaining implementation of solar power plant after examining pre-requisites.

vii. Preparation of request for proposals and supportive documents.

Preparation of drafts of all agreements and ensure the procurement process done through a transparency with the person who submits the project proposal.

Accordingly, Institute of IFC acts as a Transaction Advisor of this project.

For the conduct of the studies mentioned above in two phases, the required fund is USD 850,000 and USD 100,000 of this amount should be borne by the Government of Sri Lanka, the balanced amount would be borne by the World Bank, further, apart from this, the Government of Norway has also agreed to provide funds for this.

4.0 Proposals

Below mentioned proposals are submitted to the approval of the Cabinet of Ministers to implement the proposals mentioned in above 3.0.

- i. Establishment of solar power park of 100MW at Siyabalaanduwa in Monaraagala through the investment of the private sector under BOT basis, assign of operation, and purchasing electricity generated through that by the CEB in accordance with a Power Purchasing Agreement(PPA)
- ii. To obtain the loan facilities required to establish common infrastructure including transmission system required for the solar power park and required technical advices from the World Bank by the CEB.
- iii. To obtain the consultancy service from the International Finance Corporation (IFC) which is an affiliated organization of the World Bank to select private investor or investors to implement solar power parks and bearing the financial contribution for that, integrated with the World Bank, Norwegian Government and the Sri Lankan Government.
- iv. To obtain USD 750,000 from USD 850,000 which is the required total amount for the preparation for the bid documents, primary works including feasible study to establish solar power park and to pay USD 100,000 which is the contribution of Sri Lankan Government as the balanced amount.

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