

**B.7 Application of a monitoring methodology and description of the monitoring plan:**

<b>B.7.1 Data and parameters monitored:</b>	
<b>Data / Parameter:</b>	<b>EG<sub>y</sub></b>
Data unit:	MWh
Description:	Net Electricity supplied to the grid by the project in year y.
Source of data to be used:	The value in the PDD is from the design value, the real value will be monitored as $EG_y = EG_{out} - EG_{in,1}$
Value of data	27,898.81 MWh
Description of measurement methods and procedures to be applied:	The proportion of data to be monitored are 100% and the data will be archived and kept at least two years after end of the last crediting period. The watt-hour meters are calculated as stated in B.7.2 of this PDD.
QA/QC procedures to be applied:	<ul style="list-style-type: none"> <li>The allowable error range for the meters:  <math>EG_{out}</math> (M1) : 0.5S (±0.5%)  <math>EG_{in,1}</math> (M2) : 1.0S (±1.0%) </li> </ul>
Any comment:	

<b>Data / Parameter:</b>	<b>EG<sub>out</sub></b>
Data unit:	MWh
Description:	Electricity supplied to the grid by the project in year y.
Source of data to be used:	The value in the PDD is from design value, the real value will be measured by watt-hour meter (M1)
Value of data	27,898.81 MWh
Description of measurement methods and procedures to be applied:	Directly measured by watt-hour meter (M1) with accuracy no lower than 0.5s. The transmission electricity data (M1) will be continuously measured and electronically archived hourly by KPX. The transmission electricity data (M1) will be double checked with the electricity sales receipt.
QA/QC procedures to be applied:	<p>The allowable error range for the meters: 0.5S(±0.5%). The watt-hour meter will be calibrated every 3 years.</p> <p>Data measured by meters will be cross checked by electricity sales receipt. If the data are different, project participant shall be followed “Act on operation of electricity market”. In case meters are improperly operated equipments, internal audit and correction procedures shall be followed and be certified by the final decision-maker and Korea Power Exchange.</p>
Any comment:	

<b>Data / Parameter:</b>	<b>EG<sub>in, 1</sub></b>
Data unit:	MWh
Description:	Electricity supplied from the grid in year y.
Source of data to be used:	The value in the PDD was assumed as 0, the real value will be measured by watt-hour meter (M2)
Value of data	0 MWh
Description of	Directly measured by watt-hour meter (M2) with accuracy no lower than

measurement methods and procedures to be applied:	1.0s. The import electricity data (M2) will be continuously measured and electronically archived monthly by KPX. The import electricity data (M2) will be double checked with the electricity bill.
QA/QC procedures to be applied:	The allowable error range for the meters: 1.0S( $\pm 1.0\%$ ). The watt-hour meter will be calibrated by KEPCO. (The import watt-hour meter is under KEPCO's control) Data measured by meters will be cross checked by electricity bills.
Any comment:	

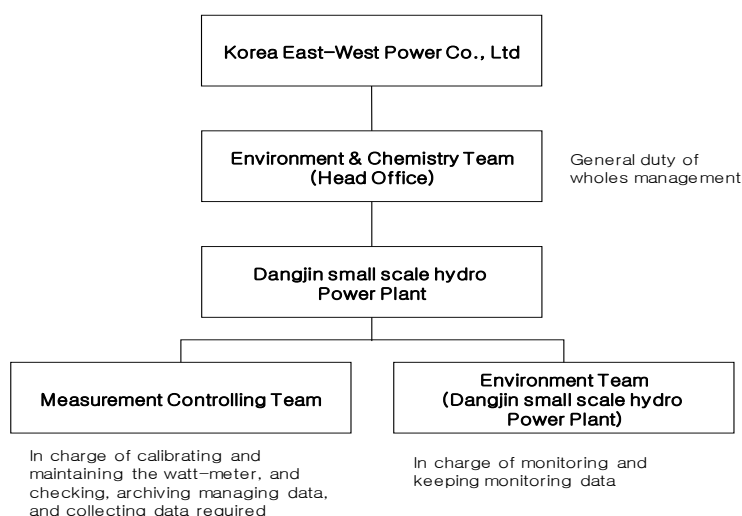
<b>Data / Parameter:</b>	<b>EG<sub>in, 2</sub></b>
Data unit:	MWh
Description:	Electricity supplied from the Dangjin thermal #7 and #8 power plant in year y.
Source of data to be used:	The value in the PDD was assumed as 0, the real value will be measured by watt-hour meter (M3)
Value of data	0 MWh
Description of measurement methods and procedures to be applied:	Directly measured by watt-hour meter (M3) with accuracy no lower than 1.0s. The import electricity data (M3) will be continuously measured and electronically archived monthly by PP. The expected annual emissions associated with <b>EG<sub>in, 2</sub></b> (M3) in emergency is much less than 1 % of the total expected annual emission reductions and are therefore considered negligible. If emission exceeds 1%, it will be considered as project emission with emission factor defined as <b>EF<sub>CO2, thermal power</sub></b> below.
QA/QC procedures to be applied:	The allowable error range for the meters: 1.0S( $\pm 1.0\%$ ). The watt-hour meter will be calibrated every 3 years.
Any comment:	<b>EG<sub>in, 2</sub></b> will be supplied from thermal power during emergency (black out from KEPCO grid). If the emission from <b>EG<sub>in, 2</sub></b> (M3) is less than 1% of total annual emission reductions, the emission from <b>EG<sub>in, 2</sub></b> (M3) will not be considered.

<b>Data / Parameter:</b>	<b>EF<sub>CO2, thermal power</sub></b>
Data unit:	tCO <sub>2e</sub> /MWh
Description:	CO <sub>2</sub> emission factor from Dangin #7 & #8 thermal power plant in year y.
Source of data to be used:	The value in the PDD is from "Methodological tool (Tool to calculate baseline, project and/or leakage emissions from electricity consumption),
Value of data	1.3 tCO <sub>2</sub> /MWh
Description of measurement methods and procedures to be applied:	The project activity can be supplied the electricity consumption sources from Dangjin #7 & #8 thermal power plants. These thermal power plants are also connected to the electricity grid. As per scenario C of the "Tool to calculate baseline, project and/or leakage emissions from electricity consumption", the project activity applies to an emission factor of 1.3 tCO <sub>2</sub> /MWh which used to project electricity consumption sources.
QA/QC procedures to	

be applied:	
Any comment:	

<b>B.7.2 Description of the monitoring plan:</b>
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The project operator assigns the person in charge of CDM project with assistance of the Management controlling team and Environment & Chemistry team. The structure shows as the following FigureB-2



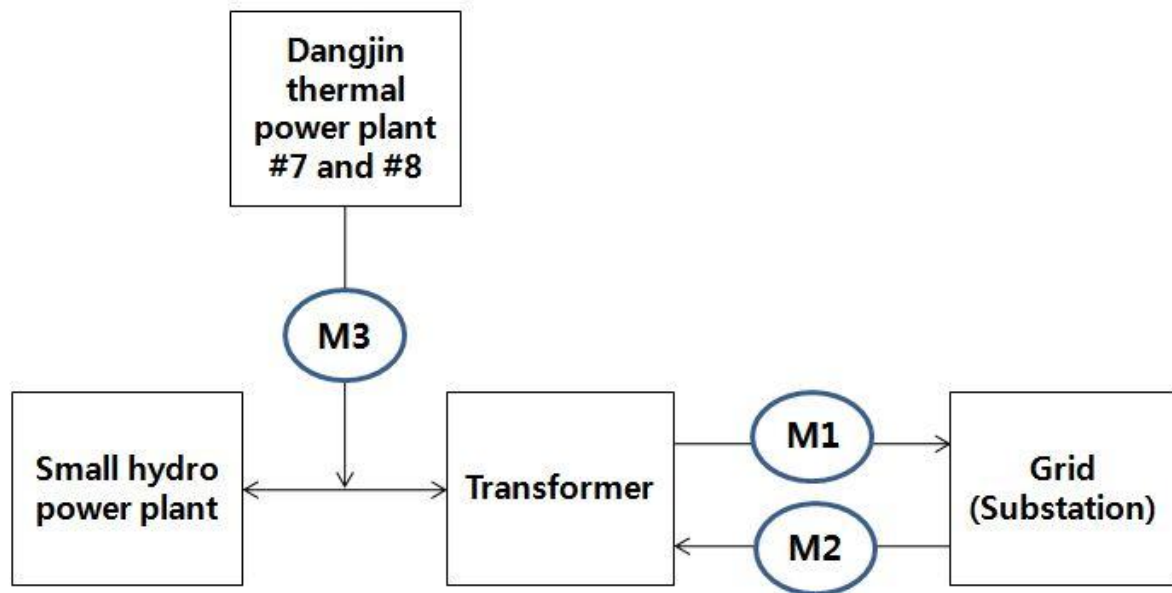
**<Figure B-2> Management structure of Monitoring Plan**

## 1. Installation of Monitoring equipment

Electricity measuring meters shall be set up transparently in accordance with “Law regarding measurement” and “Act on operation of electricity market” and shall be sealed after affirmation of Korea Power Exchange. The meters shall be authorized through the due formal certifying process (the valid period for the authorized certification: 7 years). Export watt-hour-meter (M1) and import watt-hour-meter (M3) shall be re-calibrated within 3 years after installed or calibrated as per paragraph 17 (c) of "General guidelines to SSC CDM methodologies". Another import watt-hour-meter (M2) will be re-calibrated by KEPCO as per national regulation.

## 2. Monitoring data

Electricity supplied to the grid will be monitored by metering devices installed. The electricity sale receipt will be provided by Korea Power Exchange for the project owner’s double check of the amount of electricity supplied and accepted by Korea Power Exchange. The participant will monitor the imported electricity by metering device.



**M1** : Watt-hour meter for electricity supplied to the grid

**M2** : Watt-hour meter for electricity imported from the grid

**M3** : Watt-hour meter for electricity imported from Dangjin thermal power plant #7 & #8

<Figure B-3> Diagram of electricity flow

### 3. Manager of monitoring

The person who is in charge of monitoring and electricity safety shall attend the following courses.

- Course on ‘Act on operation of electricity market’
- Course on Electricity safety

If the responsible for monitoring and electricity safety is transferred to another person, it is needed to be approved by final decision-maker.

ISO 14000 system has already existed in the object site and ISO 14000 system will be connected with monitoring system of this project.