## Monitoring Report Sheet (Input Sheet) [For Verification]

**Table 1: Parameters monitored *ex post***

| (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) |
|---|---|---|---|---|---|---|---|---|---|---|
| Monitoring period | Monitoring point No. | Parameters | Description of data | Monitored Values | Units | Monitoring option | Source of data | Measurement methods and procedures | Monitoring frequency | Other comments |
| 1/8/2016 - 31/12/2016 | (1) | $\Sigma EG_{i,p}$ | The total quantity of the electricity generated in the project during the period *p* | 111 | MWh/p | Option C | Measured data | The measured AC output of the inverters is used to determine the amount of net electricity generation by the solar PV system.<br>The electricity generation is measured and recorded electrically by the type approval electricity meter installed. Accuracy of the meter is based on IEC62053-22 class 0.5s.<br><br>Monitored data will be kept and archved for two years after final issurance of credits. | Monthly recording | This parameter is used for Case1 |
| - | (2) | φd | Category of the day *d*. [1 for business days, 0 for holidays] | - | - | Option B | Evidence of business days | Business calendar or school calendar | Daily recording | This parameter is used for Case2 |
| - | (3) | $EG_{i,d}$ | The quantity of the electricity generated by the project solar PV system *i* on monitoring date *d* during the period *p* | - | MWh/p | Option B/C | Invoice or receipts/ Measured data | Invoice or receipts for selling electricity, or the measured AC output of the inverters is used to determine the amount of net electricity generation by the solar PV system. In case the measured AC output of the inverters is used, the reading is taken from an electricity meter or the inverters. The reading is taken manually or electronically using a data logger.<br>The electricity meter is replaced or calibrated at an interval following the regulations in the country in which the electricity meter is commonly used or according to the manufacturer's recommendation, unless a type approval, manufacture's specification, or certification issued by an entity accredited under international/national standards for the electricity meter has been prepared by the time of installation. | Daily recording | This parameter is used for Case2 |

**Table 2: Project-specific parameters fixed *ex ante***

| (a) | (b) | (c) | (d) | (e) | (f) |
|---|---|---|---|---|---|
| Parameters | Description of data | Estimated Values | Units | Source of data | Other comments |
| $EF_{RE,i}$ | Reference $CO_2$ emission factor for the project solar PV system *i* | - | $tCO_2/MWh$ | In case the PV system in a proposed project activity is connected to the national grid, EFRE,i,grid, 0.353 tCO2/MWh is applied.<br><br>In case the PV system in a proposed project activity is connected to an internal grid which is not connected to the national grid, EFRE,i,cap, 0.533 tCO2/MWh is applied. | n/a |

**Table3: *Ex-post* calculation of $CO_2$ emission reductions**

| Monitoring Period | $CO_2$ emission reductions | Units |
|---|---|---|
| 1/8/2016 - 31/12/2016 | 39 | $tCO_2/p$ |

**[Monitoring option]**

| | |
|---|---|
| Option A | Based on public data which is measured by entities other than the project participants (Data used: publicly recognized data such as statistical data and specifications) |
| Option B | Based on the amount of transaction which is measured directly using measuring equipments (Data used: commercial evidence such as invoices) |
| Option C | Based on the actual measurement using measuring equipments (Data used: measured values) |

Monitoring Spreadsheet: JCM_KH_AM002_ver01.0
Reference Number: KH001

| | Parameters monitored *ex post* | Project-specific parameters fixed *ex ante* |
|---|---|---|
| i | $EG_{i,p}$ | $EF_{RE,i}$ |
| Solar PV system number | Quantity of the electricity generated by the project solar PV system *i* during the period *p* | Reference $CO_2$ emission factor for the project solar PV system *i* |
| | MWh/p | $tCO_2/MWh$ |
| 1 | 111.46 | 0.353 |
| 2 | | 0.000 |
| 3 | | 0.000 |
| 4 | | 0.000 |
| 5 | | 0.000 |
| 6 | | 0.000 |
| 7 | | 0.000 |
| 8 | | 0.000 |
| 9 | | 0.000 |
| 10 | | 0.000 |
| 11 | | 0.000 |
| 12 | | 0.000 |
| 13 | | 0.000 |

Monitoring Spreadsheet: JCM_KH_AM002_ver01.0
Reference Number: KH001

## Monitoring Report Sheet (Calculation Process Sheet) [For Verification]

| 1. Calculations for emission reductions | Fuel type | Value | Units | Parameter |
|---|---|---|---|---|
| Emission reductions during the period *p* | N/A | 39.3 | $tCO_2/p$ | $ER_p$ |
| **2. Selected default values, etc.** | | | | |
| The reference $CO_2$ emission factor based on the national grid | Electricity | 0.353 | $tCO_2/MWh$ | $EF_{RE,i,grid}$ |
| The reference $CO_2$ emission factor based on captive diesel power generator | Electricity | 0.533 | $tCO_2/MWh$ | $EF_{RE,i,cap}$ |
| **3. Calculations for reference emissions** | | | | |
| Reference emissions during the period *p* | N/A | 39.3 | $tCO_2/p$ | $RE_p$ |
| **4. Calculations of the project emissions** | | | | |
| Project emissions during the period *p* | N/A | 0.0 | $tCO_2/p$ | $PE_p$ |

[List of Default Values]

| | | |
|---|---|---|
| The reference $CO_2$ emission factor based on the national grid | 0.353 | $tCO_2/MWh$ |
| The reference $CO_2$ emission factor based on captive diesel power generator | 0.533 | $tCO_2/MWh$ |

## Monitoring Report Sheet (Input Sheet) [For Verification]

**Table 1: Parameters monitored *ex post***

| (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) |
|---|---|---|---|---|---|---|---|---|---|---|
| Monitoring period | Monitoring point No. | Parameters | Description of data | Monitored Values | Units | Monitoring option | Source of data | Measurement methods and procedures | Monitoring frequency | Other comments |
| 1/1/2017 - 31/12/2017 | (1) | $\Sigma EG_{i,p}$ | The total quantity of the electricity generated in the project during the period *p* | 282 | MWh/p | Option C | Measured data | The measured AC output of the inverters is used to determine the amount of net electricity generation by the solar PV system.<br>The electricity generation is measured and recorded electrically by the type approval electricity meter installed.<br>Accuracy of the meter is based on IEC62053-22 class 0.5s.<br><br>Monitored data will be kept and archved for two years after final issurance of credits. | Monthly recording | This parameter is used for Case1 |
| - | (2) | φd | Category of the day *d*.<br>[1 for business days, 0 for holidays] | - | - | Option B | Evidence of business days | Business calendar or school calendar | Daily recording | This parameter is used for Case2 |
| - | (3) | $EG_{i,d}$ | The quantity of the electricity generated by the project solar PV system *i* on monitoring date *d* during the period *p* | - | MWh/p | Option B/C | Invoice or receipts/ Measured data | Invoice or receipts for selling electricity, or the measured AC output of the inverters is used to determine the amount of net electricity generation by the solar PV system. In case the measured AC output of the inverters is used, the reading is taken from an electricity meter or the inverters. The reading is taken manually or electronically using a data logger.<br>The electricity meter is replaced or calibrated at an interval following the regulations in the country in which the electricity meter is commonly used or according to the manufacturer's recommendation, unless a type approval, manufacture's specification, or certification issued by an entity accredited under international/national standards for the electricity meter has been prepared by the time of installation. | Daily recording | This parameter is used for Case2 |

**Table 2: Project-specific parameters fixed *ex ante***

| (a) | (b) | (c) | (d) | (e) | (f) |
|---|---|---|---|---|---|
| Parameters | Description of data | Estimated Values | Units | Source of data | Other comments |
| $EF_{RE,i}$ | Reference $CO_2$ emission factor for the project solar PV system *i* | - | $tCO_2/MWh$ | In case the PV system in a proposed project activity is connected to the national grid, EFRE,i,grid, 0.353 tCO2/MWh is applied.<br><br>In case the PV system in a proposed project activity is connected to an internal grid which is not connected to the national grid, EFRE,i,cap, 0.533 tCO2/MWh is applied. | n/a |

**Table3: *Ex-post* calculation of $CO_2$ emission reductions**

| Monitoring Period | $CO_2$ emission reductions | Units |
|---|---|---|
| 1/1/2017 - 31/12/2017 | 99 | $tCO_2/p$ |

**[Monitoring option]**

| | |
|---|---|
| Option A | Based on public data which is measured by entities other than the project participants (Data used: publicly recognized data such as statistical data and specifications) |
| Option B | Based on the amount of transaction which is measured directly using measuring equipments (Data used: commercial evidence such as invoices) |
| Option C | Based on the actual measurement using measuring equipments (Data used: measured values) |

| | Parameters monitored *ex post* | Project-specific parameters fixed *ex ante* |
|---|---|---|
| i | $EG_{i,p}$ | $EF_{RE,i}$ |
| Solar PV system number | Quantity of the electricity generated by the project solar PV system *i* during the period *p* | Reference $CO_2$ emission factor for the project solar PV system *i* |
| | MWh/p | $tCO_2/MWh$ |
| 1 | 281.71 | 0.353 |
| 2 | | 0.000 |
| 3 | | 0.000 |
| 4 | | 0.000 |
| 5 | | 0.000 |
| 6 | | 0.000 |
| 7 | | 0.000 |
| 8 | | 0.000 |
| 9 | | 0.000 |
| 10 | | 0.000 |
| 11 | | 0.000 |
| 12 | | 0.000 |
| 13 | | 0.000 |

Monitoring Spreadsheet: JCM_KH_AM002_ver01.0
Reference Number: KH001

## Monitoring Report Sheet (Calculation Process Sheet) [For Verification]

| 1. Calculations for emission reductions | Fuel type | Value | Units | Parameter |
|---|---|---|---|---|
| Emission reductions during the period *p* | N/A | 99.4 | $tCO_2/p$ | $ER_p$ |
| **2. Selected default values, etc.** | | | | |
| The reference $CO_2$ emission factor based on the national grid | Electricity | 0.353 | $tCO_2/MWh$ | $EF_{RE,i,grid}$ |
| The reference $CO_2$ emission factor based on captive diesel power generator | Electricity | 0.533 | $tCO_2/MWh$ | $EF_{RE,i,cap}$ |
| **3. Calculations for reference emissions** | | | | |
| Reference emissions during the period *p* | N/A | 99.4 | $tCO_2/p$ | $RE_p$ |
| **4. Calculations of the project emissions** | | | | |
| Project emissions during the period *p* | N/A | 0.0 | $tCO_2/p$ | $PE_p$ |

[List of Default Values]

| | | |
|---|---|---|
| The reference $CO_2$ emission factor based on the national grid | 0.353 | $tCO_2/MWh$ |
| The reference $CO_2$ emission factor based on captive diesel power generator | 0.533 | $tCO_2/MWh$ |

## Monitoring Report Sheet (Input Sheet) [For Verification]

**Table 1: Parameters monitored *ex post***

| (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) |
|---|---|---|---|---|---|---|---|---|---|---|
| Monitoring period | Monitoring point No. | Parameters | Description of data | Monitored Values | Units | Monitoring option | Source of data | Measurement methods and procedures | Monitoring frequency | Other comments |
| 1/1/2018 - 31/7/2018 | (1) | $\Sigma EG_{i,p}$ | The total quantity of the electricity generated in the project during the period *p* | 124 | MWh/p | Option C | Measured data | The measured AC output of the inverters is used to determine the amount of net electricity generation by the solar PV system.<br>The electricity generation is measured and recorded electrically by the type approval electricity meter installed. Accuracy of the meter is based on IEC62053-22 class 0.5s.<br><br>Monitored data will be kept and archved for two years after final issurance of credits. | Monthly recording | This parameter is used for Case1 |
| - | (2) | φd | Category of the day *d*. [1 for business days, 0 for holidays] | - | - | Option B | Evidence of business days | Business calendar or school calendar | Daily recording | This parameter is used for Case2 |
| - | (3) | $EG_{i,d}$ | The quantity of the electricity generated by the project solar PV system *i* on monitoring date *d* during the period *p* | - | MWh/p | Option B/C | Invoice or receipts/ Measured data | Invoice or receipts for selling electricity, or the measured AC output of the inverters is used to determine the amount of net electricity generation by the solar PV system. In case the measured AC output of the inverters is used, the reading is taken from an electricity meter or the inverters. The reading is taken manually or electronically using a data logger.<br>The electricity meter is replaced or calibrated at an interval following the regulations in the country in which the electricity meter is commonly used or according to the manufacturer's recommendation, unless a type approval, manufacture's specification, or certification issued by an entity accredited under international/national standards for the electricity meter has been prepared by the time of installation. | Daily recording | This parameter is used for Case2 |

**Table 2: Project-specific parameters fixed *ex ante***

| (a) | (b) | (c) | (d) | (e) | (f) |
|---|---|---|---|---|---|
| Parameters | Description of data | Estimated Values | Units | Source of data | Other comments |
| $EF_{RE,i}$ | Reference $CO_2$ emission factor for the project solar PV system *i* | - | $tCO_2/MWh$ | In case the PV system in a proposed project activity is connected to the national grid, EFRE,i,grid, 0.353 tCO2/MWh is applied.<br><br>In case the PV system in a proposed project activity is connected to an internal grid which is not connected to the national grid, EFRE,i,cap, 0.533 tCO2/MWh is applied. | n/a |

**Table3: *Ex-post* calculation of $CO_2$ emission reductions**

| Monitoring Period | $CO_2$ emission reductions | Units |
|---|---|---|
| 1/1/2018 - 31/7/2018 | 43 | $tCO_2/p$ |

**[Monitoring option]**

| | |
|---|---|
| Option A | Based on public data which is measured by entities other than the project participants (Data used: publicly recognized data such as statistical data and specifications) |
| Option B | Based on the amount of transaction which is measured directly using measuring equipments (Data used: commercial evidence such as invoices) |
| Option C | Based on the actual measurement using measuring equipments (Data used: measured values) |

| | Parameters monitored *ex post* | Project-specific parameters fixed *ex ante* |
|---|---|---|
| i | $EG_{i,p}$ | $EF_{RE,i}$ |
| Solar PV system number | Quantity of the electricity generated by the project solar PV system *i* during the period *p* | Reference $CO_2$ emission factor for the project solar PV system *i* |
| | MWh/p | $tCO_2/MWh$ |
| 1 | 124.28 | 0.353 |
| 2 | | 0.000 |
| 3 | | 0.000 |
| 4 | | 0.000 |
| 5 | | 0.000 |
| 6 | | 0.000 |
| 7 | | 0.000 |
| 8 | | 0.000 |
| 9 | | 0.000 |
| 10 | | 0.000 |
| 11 | | 0.000 |
| 12 | | 0.000 |
| 13 | | 0.000 |

Monitoring Spreadsheet: JCM_KH_AM002_ver01.0
Reference Number: KH001

## Monitoring Report Sheet (Calculation Process Sheet) [For Verification]

| 1. Calculations for emission reductions | Fuel type | Value | Units | Parameter |
|---|---|---|---|---|
| Emission reductions during the period *p* | N/A | 43.9 | $tCO_2/p$ | $ER_p$ |
| **2. Selected default values, etc.** | | | | |
| The reference $CO_2$ emission factor based on the national grid | Electricity | 0.353 | $tCO_2/MWh$ | $EF_{RE,i,grid}$ |
| The reference $CO_2$ emission factor based on captive diesel power generator | Electricity | 0.533 | $tCO_2/MWh$ | $EF_{RE,i,cap}$ |
| **3. Calculations for reference emissions** | | | | |
| Reference emissions during the period *p* | N/A | 43.9 | $tCO_2/p$ | $RE_p$ |
| **4. Calculations of the project emissions** | | | | |
| Project emissions during the period *p* | N/A | 0.0 | $tCO_2/p$ | $PE_p$ |

[List of Default Values]

| | | |
|---|---|---|
| The reference $CO_2$ emission factor based on the national grid | 0.353 | $tCO_2/MWh$ |
| The reference $CO_2$ emission factor based on captive diesel power generator | 0.533 | $tCO_2/MWh$ |