

Gold Standard for the Global Goals  
Transition Annex

*(To be used by all GS CDM/VER stand alone projects and PoAs, Micro Scale stand alone projects  
and Micro PoAs)*



**Version 1 – September 2017**

## KEY PROJECT INFORMATION

Title of Project/PoA/Activity:	Energy Efficiency measures in DMRC Phase III elevated stations
GS ID of the project/PoA/activity:	GS 4634
GS Version:	2.2
Brief description of Project:	Energy Efficiency measures at DMRC Phase III elevated stations (hereafter referred to as the "Project") developed by Delhi Metro Rail Corporation Ltd. (hereafter referred to as the DMRC). The project involves implementation of energy efficiency measures at 66 elevated stations of Phase III of Delhi Metro managed by DMRC.
Project type: Energy/Land Use	Energy
For Renewable Energy Projects – intention to apply RECs Labels (y/n)	Not Applicable
GS Stream (CDM/VER):	VER
Scale (large/scale/micro):	Micro
GS Registration Date:	15/03/2018
GS Crediting period start date:	01/06/2018
CDM Registration Date:	Not Applicable
CDM Crediting period start date:	Not Applicable
Project Developer:	Delhi Metro Rail Corporation Ltd.
Project Representative:	Mr. Sant Adhar Verma, Executive Director/Environment
Project Participants and any communities involved:	Delhi Metro Rail Corporation Ltd. (A public entity)
Host Country/Location:	India
Methodologies applied:	AMS-II.E; "Energy efficiency and fuel switching measures for buildings", Version 10
SDG Impacts:	<p>1 – SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all</p> <p>2 – SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p> <p>3 – SDG 13: Take urgent action to combat climate change and its impacts</p>
Estimated amount of SDG Impact (GSVERs and others)	<p>SDG 7: Annually average 6568.164 MWh of energy savings</p> <p>SDG 8: Imparted training to 2,522 no. of employees during the period June'18 to May'19.</p> <p>SDG 13: Annually average 6,374 Verified Emission Reductions (VERs)</p>

**NOTE:** This Annex shall be used for all PoAs if the sustainable development assessment is conducted at PoA level. In case sustainable development assessment is conducted at activity level, then this Annex shall be filled for each of the activities.

## SECTION A Sustainable Development Goals (SDG) outcomes

### A.1 Relevant target for each of the three SDGs

>>(Specify the relevant SDG target for at least each of three SDGs addressed by the project. Refer most recent version of targets [here](#). Contribution to SDG 13 is mandatory to be demonstrated for all projects and activities. Contribution to SDG 7 is recommended to be demonstrated for all community service projects and activities)

SDG	Target
SDG-7	7.3: By 2030, double the global rate of improvement in energy efficiency.
SDG-8	8.6: By 2020, substantially reduce the proportion of youth not in employment, education or training
SDG-13	13.2: Integrate climate change measures into national policies, strategies and planning

### A.2 Explanation of methodological choices/approaches for estimating the SDG outcome

>>(Explain how the methodological steps in the selected methodology(ies) or proposed approach for calculating baseline and project outcomes are applied. Clearly state which equations will be used in calculating net benefit.)

For estimating the SDG outcome, following method is used for each of the SDG:

1. SDG 7: Methodology used for calculating the energy saving from elevated stations in project activity is elaborated below:

#### Step 1: Estimation of Energy Savings in the given year y

$$ES_y = \sum_{m=1}^{m=n} ES_m$$

Where:

- $ES_y$  = Total Energy savings the given year y (in MWh)  
 $m$  = Month in the year y  
 $ES_m$  = Total Energy Savings in a given month m (in MWh)

#### Step 2: Estimation of Energy Savings in the given month m

$$ES_m = \left( \sum_{ST=1}^{ST=n} ES_{ST} \right) \div 1000$$

Where:

- $ES_m$  = Total Energy Savings in a given month m (in MWh)  
 $ES_{ST}$  = Energy Savings for a given station in a given month m (in kWh)  
 $ST$  = Station included in the project activity

#### Step 3: Estimation of Energy Savings for a station in a given month

$$ES_{ST} = \eta_{f,m} \times A_{ST,m}$$

# Gold Standard

Where:

$ES_{ST}$	=	Energy Savings for a given station in a given month m (in kWh)
$\eta_{f,m}$	=	Per square meter savings in the given month m
$A_{ST,m}$	=	Operational area for a given station in a month m (in sq.m)

## Step 4: Estimation of Per Unit Energy Efficiency Factor

$$\eta_{f,m} = \eta_{BL,m} - \eta_{PJ,m}$$

Where:

$\eta_{f,m}$	=	Per sqm Energy savings of the project station
$\eta_{BL,m}$	=	Average per sqm Energy Consumption factor for the Baseline Stations in the given month m for the year 2018 and 2019
$\eta_{PJ,m}$	=	Average per sqm Energy Consumption factor for the Project Activity in the given month m for the year.

## Step 5: Estimation of Per Unit Energy Efficiency Factor for Baseline Stations

$$\eta_{BL,m} = \left( \sum_{ST, BL=1}^{ST, BL=n} EC_{BL,m} \right) \div \left( \sum_{ST, BL=1}^{ST, BL=n} A_{BL} \right)$$

Where:

$\eta_{BL,m}$	=	Average per Unit Energy Consumption factor for the Baseline Stations for a given month m of year 2018 and 2019
ST	=	Station included in the baseline
$EC_{BL,m}$	=	Energy Consumption for all the stations included in baseline stations of Phase I (in kWh)
$A_{BL}$	=	Area of all the stations included in baseline stations of Phase I (in sq.m)

## Step 6: Estimation of Per Unit Energy Efficiency Factor for Project Stations

$$\eta_{PJ,m} = \sum_{ST=1}^{ST=n} (EC_{PJ,m} \div A_{ST,m})$$

Where:

$\eta_{PJ,m}$	=	Per Unit Energy Consumption factor for the Project Stations for a given month m
ST	=	Station included in the project activity
$EC_{PJ,m}$	=	Energy Consumption for stations included in project activity (in kWh)
$A_{ST,m}$	=	Area of stations included in project activity (in sq.m)

2. SDG 8: For calculating the outcome of SDG 8, training records will be used. The training record will provide a clear picture on the good quality of employment. This training will inform the staff/employees about the working and site requirements. Overall, the training will help employees in a sustainable economic growth, productive employment and enhance their skill set related to their respective work.
3. SDG 13: Emission Reduction calculation will be done for calculating the outcome of SDG 13. This calculation shall be done as per the applied methodology – AMS II.E; “Energy efficiency and fuel switching measures for buildings”.

# Gold Standard

## Emission Reductions

$$ER_y = BE_y - (PE_y + L_y)$$

Where:

$ER_y$  = Emission Reductions in the year y (in tCO<sub>2</sub>e)

$BE_y$  = Baseline Emissions in the year y (in tCO<sub>2</sub>e)

$PE_y$  = Project Emissions in the year y (in tCO<sub>2</sub>e)

$L_y$  = Leakage Emissions in the year y (in tCO<sub>2</sub>e)

## Project Emissions

For the project activity under consideration, the emission reductions will be computed on the basis of the net amount of electrical energy consumption reduction w.r.t the baseline scenario. Therefore, there will be no project emissions arising out of additional electricity consumption under the project activity. So, project emissions ( $PE_y$ ) = 0

## Baseline Emissions

Baseline emissions have been computed by multiplying the energy savings achieved and the emission coefficient for NEWNE grid.

$$BE_y = ES_y * EF_y$$

Where:

$BE_y$  = Baseline Emissions in year y (in tCO<sub>2</sub>e)

$ES_y$  = Total Energy savings the given year y (in MWh)

$EF_y$  = Emission Coefficient for the NEWNE grid (in tCO<sub>2</sub>/MWh)

## Leakage Emissions

There are no leakage emissions from the project activity

### A.3 Data and parameters fixed ex ante for monitoring contribution to each of the three SDGs

*(Include a compilation of information on the data and parameters that are not monitored during the crediting period but are determined before the design certification and remain fixed throughout the crediting period like IPCC defaults and other methodology defaults. Copy this table for each piece of data and parameter.)*

<b>Relevant SDG Indicator</b>	SDG 13 Take urgent action to combat climate change and its impacts
<b>Data/parameter</b>	EF <sub>y</sub>
<b>Unit</b>	t CO <sub>2</sub> /MWh
<b>Description</b>	CO <sub>2</sub> emission factor for the NEWNE grid
<b>Source of data</b>	CEA published grid emission factors
<b>Value(s) applied</b>	0.9837 tCO <sub>2</sub> /MWh
<b>Choice of data or Measurement methods and procedures</b>	Central Electricity Authority (CEA) database, version 9 dated January 2014 values have been used for authenticity of the data, available publicly by Govt of India with a view to obtain uniformity of approach in the country towards a common objective.
<b>Purpose of data</b>	Baseline
<b>Additional comment</b>	<a href="http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm">http://www.cea.nic.in/reports/planning/cdm_co2/cdm_co2.htm</a>

## SECTION B Safeguarding Principles Assessment

### B.1 Analysis of social, economic and environmental impacts

>>(Refer the GS4GG Safeguarding Principles and Requirements document for detailed guidance on carrying out this assessment. The assessment of following Safeguarding Principles Assessment is required to be carried

# Gold Standard

out by GS Version 2.0, 2.1 and 2.2 projects. GS v1.0 projects will carry out assessment of all the safeguarding principles discussed in the GS4GG Safeguarding Principles and Requirements document.)

Safeguarding principles	Assessment questions	Assessment of relevance to the project (Yes/potentially/no)	Justification	Mitigation measure (if required)
3.1 Human Rights	<p>1. The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights.</p> <p>2.The Project shall not discriminate with regards to participation and inclusion.</p>	No	<p>The Project is not in conflict with the economic livelihood or other issue of the local community. The Project does not cause any human rights abuse and respects internationally proclaimed human rights issue.</p> <p>The project will not employ any personnel based on gender, race, religion, sexual orientation or any other basis. As the Constitution of the host country prohibits discrimination on the basis of a person's race, sex, religion, place of birth, or social status. The host country has signed the Convention 100 (equal remuneration) and convention 111 (discrimination in employment /occupation) under the ILO Declaration on Fundamental Principles and rights<sup>1</sup></p>	Not required

<sup>1</sup><http://www.mfcindia.org/main/bgpapers/bgpapers2013/am/bgpap2013c.pdf>

# Gold Standard

<p>3.2 Gender Equality and Women's Rights</p>	<p>The Project shall complete the following gender assessment questions in order to inform Requirements, below:</p> <ol style="list-style-type: none"> <li>1. Is there a possibility that the Project might reduce or put at risk women's access to or control of resources, entitlements and benefits?</li> <li>2. Is there a possibility that the Project can adversely affect men and women in marginalised or vulnerable communities (e.g., potential increased burden on women or social isolation of men)?</li> <li>3. Is there a possibility that the Project might not take into account gender roles and the abilities of women or men to participate in the decisions/designs of the project's activities (such as lack of time, child care duties, low literacy or educational levels, or societal discrimination)?</li> <li>4. Does the Project take into account gender roles and the abilities of women or men to benefit from the Project's activities (e.g., Does the project criteria ensure that it includes minority groups or landless peoples)?</li> <li>5. Does the Project design contribute to an increase in women's workload that adds to their care responsibilities or that</li> </ol>	<p>No</p>	<ol style="list-style-type: none"> <li>1. The project does not decrease women's access to or control of resources.</li> <li>2. No, there is no possibility of adverse effect.</li> <li>3. No, the Project does not consider gender roles and in fact actively engages both women and men.</li> <li>4. The project does not discriminate on basis of gender, caste or religion.</li> <li>5. No, the Project was not designed to increase women's workload nor add care responsibilities.</li> </ol>	<p>Not Required</p>
---	--	-----------	--	---------------------

# Gold Standard

	<p>prevents them from engaging in other activities?</p> <p>6. Would the Project potentially reproduce or further deepen discrimination against women based on gender, for instance, regarding their full participation in design and implementation or access to opportunities and benefits?</p> <p>7. Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and priorities of women and men in accessing and managing environmental goods and services?</p> <p>8. Is there a likelihood that the proposed Project would expose women and girls to further risks or hazards?</p> <p>The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women.</p> <p>1. Sexual harassment and/or any forms of violence against women - address the multiple risks of gender-based violence, including sexual exploitation or human trafficking.</p>		<p>6. There is no place for discrimination against women in this Project. The project does not discriminate on basis of gender, caste or religion.</p> <p>7. The Project will not limit women's ability regarding natural resources.</p> <p>8. No the Project will not expose women and girls to further risks or hazards.</p> <p>The project proponent has a grievance cell which would look into complaints.</p> <p>1. There is no such risk for the project. The project proponent has a grievance cell which would look into complaints.</p> <p>2. The project does not involve in slavery, imprisonment or</p>	
--	---	--	---	--

# Gold Standard

	<p>2. Slavery, imprisonment, physical and mental drudgery, punishment or coercion of women and girls.</p> <p>3. Restriction of women's rights or access to resources (natural or economic).</p> <p>4. Recognise women's ownership rights regardless of marital status - adopt project measures where possible to support to women's access to inherit and own land, homes, and other assets or natural resources.</p> <p>Projects shall apply the principles of nondiscrimination, equal treatment, and equal pay for equal work, specifically:</p> <p>1. Where appropriate for the implementation of a Project, paid, volunteer work or community contributions will be organised to provide the conditions for equitable participation of men and women in the identified tasks/activities.</p> <p>2. Introduce conditions that ensure the participation of women or men in</p>		<p>coercion of women and girls.</p> <p>3. The Project will not restrict women's rights or access regarding natural resources. The project proponent does not discriminate on gender, caste, religion etc.</p> <p>4. Marital status is completely irrelevant to the Project. The project proponent does not discriminate on gender, caste, religion etc.</p> <p>Yes, the Project has equal opportunity for women and men to contribute both in volunteer and working positions</p> <p>1. The project proponent takes into account the participation by both men and women. Further, the projects designed are implemented for equal participation of both men and women.</p> <p>2. There is no limit on the access to Project participation and benefits from either of these conditions.</p>	
--	---	--	--	--

## Gold Standard

	<p>Project activities and benefits based on pregnancy, maternity/paternity leave, or marital status.</p> <p>3. Ensure that these conditions do not limit the access of women or men, as the case may be, to Project participation and benefits.</p> <p>The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks.</p>		<p>3. There are no such conditions that limit the access of women or men for participation.</p> <p>The project is aligned to India's strategy for elimination of all discrimination. India ratified the International Convention on the Elimination of All Forms of Racial Discrimination on 03/12/1968 with certain reservation<sup>2</sup>.</p>	
3.3 Community health, safety and working conditions	<p>The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community.</p>	No	<p>The project proponent is committed to the employee's workplace health &amp; safety during all phases of the project. Further, project implementation will not have any community exposure to increased health risks.</p>	Notrequired

<sup>2</sup>[http://nhrc.nic.in/documents/india\\_ratification\\_status.pdf](http://nhrc.nic.in/documents/india_ratification_status.pdf)

# Gold Standard

<p>3.4.1 Sites of Cultural and Historical Heritage</p> <p>3.4.2 Forced Eviction and Displacement</p>	<p>Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g., knowledge, innovations, or practices)?</p> <p>Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)?</p>	<p>No</p>	<p>The project area does not include site, structure or object with historical, artistic traditional or religious values. As per the list of cultural heritage sites in India by UNESCO<sup>3</sup>, it is clear that the project site is not a cultural heritage site.</p> <p>Project is implemented inside the metro station and hence does not cause any physical or economic relocation of people.</p>	<p>Not required</p>
--	---	-----------	--	---------------------

<sup>3</sup><http://whc.unesco.org/en/statesparties/in>

## Gold Standard

<p>3.4.3 Land Tenure and Other Rights</p>	<p>1.The Project Developer shall identify all such sites/matters potentially affected by the Project. For all such sites/matters identified the Project shall respect and safeguard:</p> <p>(a) Legal rights, or (b) Customary rights, or (c)Special cultural, ecological, economic, religious or spiritual significance of people shall be demonstrably promoted/protected.</p> <p>2.Changes in legal arrangements must be in line with relevant law and regulation and must be carried out in strict adherence with such laws. All legal disputes must be resolved prior to Project being carried out in such areas. All such changes must be demonstrated as having been agreed with free, prior and informed consent.</p> <p>3.The Project Developer must hold uncontested land title for the entire Project Boundary to complete Project Design Certification.</p>	<p>No</p>	<p>1. The project has all the legal, customary rights on the land and does not require any change to land tenure arrangements. The proponent has also obtained necessary clearances from nodal agencies.</p> <p>2. This is not applicable as the project does not require any change to land tenure arrangements.</p> <p>3. The project developers holds the land title for the all the land covered in the project activity.</p>	<p>Not required</p>
<p>3.4.4 Indigenous people</p>	<p>Are indigenous peoples present in or within the area of influence of the Project and/or is the Project located on land/territory claimed by indigenous peoples?</p>	<p>No</p>	<p>No indigenous people are affected in or within the area of influence of the project.</p>	<p>Not required</p>

## Gold Standard

3.5. Corruption	The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects	No	DMRC has strict rules for maintaining anti-corruption within the organization and in its dealing with other parties. There is a Vigilance Unit, which works in close coordination with the Vigilance Unit of the Ministry of Housing and Urban Affairs (MoHUA) and the Central Vigilance Commission.	Not required
3.6.1 Labour Rights	<p>1. The Project Developer shall ensure that there is no forced labour and that all employment is in compliance with national labour and occupational health and safety laws, with obligations under international law, and consistency with the principles and standards embodied in the International Labour Organization (ILO) fundamental conventions. Where these are contradictory and a breach of one or other cannot be avoided, then guidance shall be sought from Gold Standard.</p> <p>2. Workers shall be able to establish and join labour organisations.</p> <p>3. Working agreements with all individual workers shall be documented and implemented. These shall at minimum comprise: (a) Working hours (must not exceed 48 hours per week on a regular basis), AND (b) Duties and tasks, AND</p>	No	<p>1. The proponent assures that there will be no bonded or forced labor during operation of the project activity. Uniform policy will be implemented for all employees. The host country has robust laws in place prohibiting forced and compulsory labor<sup>4</sup>.</p> <p>2. The proponent confirms that all the fundamental rights of the employees will be respected.</p> <p>3. The project proponent appoints contractor/agency to carry out the maintenance works (if required). For these maintenance works, it is mandatory for contractor to comply</p>	Not Required

<sup>4</sup><http://labour.nic.in/content/>

# Gold Standard

	<p>(c) Remuneration (must include provision for payment of overtime), AND (d) Modalities on health insurance, AND (e) Modalities on termination of the contract with provision for voluntary resignation by employee, AND Provision for annual leave of not less than 10 days per year, not including sick and casual leave.</p> <p>4. The Project Developer shall justify that the employment model applied is locally and culturally appropriate.</p> <p>5. Child labour, as defined by the ILO Minimum Age Convention is not allowed. The Project Developer shall use adequate and verifiable mechanisms for age verification in recruitment procedures. Exceptions are children for work on their families' property as long as: (a) Their compulsory schooling (minimum of 6 schooling years) is not hindered, AND (b) The tasks they perform do not harm their physical and mental development, AND (c) The opinions and recommendations of an Expert Stakeholder shall be sought and demonstrated as being included in the Project design.</p>		<p>with requirements of working hours, Duties and tasks, Renumeration, Modalities of health insurance and Modalities of termination for each worker. All these working agreement are documented and implemented.</p> <p>4. The Project Proponent ensures that local workers/employees are preferred, to the extent possible ensuring skill development in the local populace.</p> <p>5. Child labor is strictly prohibited in the country <sup>5</sup>. The proponent assures that no child labor will be employed during operation of the project.</p> <p>The project proponent has a set mechanism to ensure the age of all the temporary/permanent employees during the life time of the project.</p>	
--	---	--	--	--

<sup>5</sup>[http://www.indianchild.com/child\\_labour\\_law\\_in\\_india.htm](http://www.indianchild.com/child_labour_law_in_india.htm)

# Gold Standard

	6. The Project Developer shall ensure the use of appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures.		6. The project developer has taken relevant mitigation measures like equipping the necessary instruments to protect the health and safety of the employees.	
3.6.2 Negative Economic Consequences	<p>1. The Project Developer shall demonstrate the financial sustainability of the Projects implemented, also including those that will occur beyond the Project Certification period.</p> <p>2. The Projects shall consider economic impacts and demonstrate a consideration of potential risks to the local economy and how these have been taken into account in Project design, implementation, operation and after the Project. Particular focus shall be given to vulnerable and marginalised social groups in targeted communities and that benefits are socially-inclusive and sustainable.</p>	No	<p>1. Financial Sustainability of the project has been discussed under Section B.5 of the registered PDD.</p> <p>The project involves implementation of energy efficiency measures in metro stations. Since, the energy consumption will be less, consequently the energy expenditure will be low. Thus making the project financially viable.</p> <p>2. There are no negative economic impacts or potential risks to the local economy due to the project activity.</p>	Not Required
4.1.1 Emissions	Will the Project increase	No	The project being a energy efficiency project	Not

# Gold Standard

	greenhouse gas emissions over the Baseline Scenario?		will not cause increase in greenhouse gas emissions over the baseline scenario.	Required
4.1.2 Energy Supply	Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	No	The project is connected to the local grid.	Not Required
4.2.1 Impact on natural water patterns and flow	Will the Project affect the natural or pre-existing pattern of watercourses, ground-water and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	No	The project being an energy efficiency project will not affect natural or pre-existing pattern of water courses, ground water and/or watershed.	Not Required
4.2.2 Erosion and/or water body stability	<p>1. Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion? If 'Yes' or 'Potentially' proceed to question 2.</p> <p>2. Is the Project's area of influence susceptible to excessive erosion and/or water body instability?</p>	No	<p>1. The project activity will not have any impact or cause additional erosion and/or water body instability or disrupt the natural pattern of erosion.</p> <p>2. The project area is not susceptible to excessive erosion or water body instability.</p>	Not Required
4.3.1 Landscape modification and soil	Does the Project involve the use of land and soil for production of crops or other products?	No	The project does not involve the use of land and soil for production of crops or other products.	Not Required
4.3.2 Vulnerability to Natural Disaster	Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other	No	The Project will not be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding,	Not Required

## Gold Standard

	extreme climatic conditions?		drought or other extreme climatic conditions.	
4.3.3 Genetic Resources	Could the Project be negatively impacted by the use of genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development)?	No	The project does not have any impact by use of GMOs.	Not Required
4.3.4 Release of pollutants	Could the Project potentially result in the release of pollutants to the environment?	No	The project being an energy efficiency project did not involve in any type of emission.	Not Required
4.3.5 Hazardous and Non-hazardous Waste	Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	No	The project during operational phase uses various type of oil/lubricants, grease which are classified as hazardous. These waste are handled in line with hazardous waste management rules and are disposed off accordingly.	Not Required
4.3.6 Pesticides and fertilizers	Will the Project involve the application of pesticides and/or fertilisers?	No	The Project will not involve the application of pesticides and/or fertilisers.	Not Required
4.3.7 Harvesting of forests	Will the Project involve the harvesting of forests?	No	The Project does not involve the harvesting of forests.	Not Required
4.3.8 Food	Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	No	The Project does not have any impact on the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives.	Not Required
4.3.9 Animal Husbandry	Will the Project involve animal husbandry?	No	The Project will not involve animal husbandry.	Not Required
4.3.10 High Conservation Value Areas and Critical Habitats	Does the Project physically affect or alter largely intact or High Conservation Value	No	The Project does not affect or alter largely intact or HCV ecosystems, critical habitats,	Not Required

# Gold Standard

	(HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified?		landscapes, key biodiversity areas or sites identified.	
4.3.11 Endangered Species	<p>1. Are there any endangered species identified as potentially being present within the Project boundary (including those that may route through the area)?</p> <p>2. Does the Project potentially impact other areas where endangered species may be present through transboundary affects?</p>	No	<p>1. There are no endangered species identified as potentially being present within the Project boundary.</p> <p>2. The Project does not impact other areas where endangered species may be present through transboundary affects.</p>	Not Required

## SECTION C Monitoring plan

### C.1 Data and parameters to be monitored

*(Include specific information on how the data and parameters that need to be monitored in the selected methodology(ies) or proposed approaches or as per mitigation measures from safeguarding principles assessment or as per feedback from stakeholder consultations would actually be collected during monitoring. Copy this table for each piece of data and parameter.)*

<b>Relevant Indicator/Safeguarding Principle</b>	<b>SDG</b> SDG 7 Ensure access to affordable, reliable, sustainable and modern energy for all
<b>Data / Parameter</b>	Energy saving from all stations in project activity
<b>Unit</b>	MWh
<b>Description</b>	Sustainable energy saving from the project increase the share of global energy mix
<b>Source of data</b>	Site records maintained by DMRC on electricity consumption for all the stations covered by the project activity in part of Phase III of Delhi Metro. It's a calculated value based on energy saving calculation from baseline energy consumption.
<b>Value(s) applied</b>	3867.198 MWh/year

## Gold Standard

<b>Measurement methods and procedures</b>	Data measured continuously and recorded every month for all the station buildings using electricity meter in log books.
<b>Monitoring frequency</b>	Continuously measure and record monthly
<b>QA/QC procedures</b>	The electricity would be maintained in line with the state electricity board requirement.
<b>Purpose of data</b>	Baseline emission calculation
<b>Additional comment</b>	All data pertaining to the parameter shall be archived in paper/ electronic format for at least 5 years post the crediting period of the project activity.

<b>Relevant Indicator/Safeguarding Principle</b>	<b>SDG</b> SDG 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
<b>Data / Parameter</b>	Number of training programme
<b>Unit</b>	Number
<b>Description</b>	The project activity ensures good quality of employment by training the staff . Refresher training is also provided as and when required.
<b>Source of data</b>	Training records
<b>Value(s) applied</b>	2522 no
<b>Measurement methods and procedures</b>	The staff recruited undergoes a training where they are informed about the working and site requirements. Refresher training is provided as in when required
<b>Monitoring frequency</b>	Annually
<b>QA/QC procedures</b>	HR Records
<b>Purpose of data</b>	Continue to provide quality employment in all operation and maintenance activity for the project by imparting training
<b>Additional comment</b>	All data pertaining to the parameter shall be archived in paper/ electronic format for at least 2 years post the crediting period of the project activity.

<b>Relevant Indicator/Safeguarding Principle</b>	<b>SDG</b> SDG 13 Take urgent action to combat climate change and its impacts
<b>Data / Parameter</b>	GHGs emission reduction per year
<b>Unit</b>	tCO <sub>2</sub> e
<b>Description</b>	Mitigation of Climate change by GHGs emisssion reduction through implementation of project
<b>Source of data</b>	Emission Reduction Calculation
<b>Value(s) applied</b>	6,374 tCO <sub>2</sub> e
<b>Measurement methods and procedures</b>	AMS-II. E "Energy Efficiency and fuel switching measures for buildings" version 10
<b>Monitoring frequency</b>	Annually
<b>QA/QC procedures</b>	The amount of emission reductions is verified as per the GS rules.
<b>Purpose of data</b>	To calculate GHGs emission reduction by the implementation of project
<b>Additional comment</b>	Actual emission reductions will be provided in the GS Monitoring Report of the project.

# Gold Standard

## C.1.1 Other elements of monitoring plan (if applicable)

>> Not Applicable

## SECTION D Duration and crediting period

### D.1 Duration of project

#### D.1.1 Start date of project

>>(Specify start date of the project, in the format of DD/MM/YYYY)

02/01/2013

#### D.1.2 Expected operational lifetime of project

>> (Specify in years)

30 years

### D.1 GS Crediting period of the project/activity

#### D.2.1 Start date of the ongoingGS crediting period

>>(Specify in dd/mm/yyyy)

01/06/2018

#### D.2.3 End date of the ongoing GS crediting period

>>(Specify in dd/mm/yyyy)

31/05/2028

#### D.2.3 Total length of the GS crediting periods

>>(Specify the total length of crediting period in years in line with GS4GG Principles & Requirements or relevant activity requirements)

10 years

## SECTION E Stacking of new assets

>> (If project is looking to stack new assets over GSVERs the required information to demonstrate compliance to the relevant methodology, product specification and additionality shall be presented in the new PDD template launched with GS4GG)

Not Applicable

## Appendix 1. Contact information of project participants

<b>Organization name</b>	Delhi Metro Rail Corporation Ltd.
<b>Registration number with relevant authority</b>	
<b>Street/P.O. Box</b>	Fire Brigade Lane, Barakhamba Road
<b>Building</b>	Metro Bhawan
<b>City</b>	New Delhi
<b>State/Region</b>	New Delhi
<b>Postcode</b>	110001
<b>Country</b>	India
<b>Telephone</b>	011-22754719
<b>Fax</b>	011-22754719
<b>E-mail</b>	saverma_rs@yahoo.com
<b>Website</b>	www.delhimetrorail.com
<b>Contact person</b>	SantAdharVerma
<b>Title</b>	Executive Director / Environment
<b>Salutation</b>	Mr.
<b>Last name</b>	Verma
<b>Middle name</b>	Adhar
<b>First name</b>	Sant
<b>Department</b>	Environment
<b>Mobile</b>	+91-9811106868
<b>Direct fax</b>	+91-22754719
<b>Direct tel.</b>	+91-22754719
<b>Personal e-mail</b>	saverma_rs@yahoo.com