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

Gold Standard®

KEY PROJECT INFORMATION

Title of Project/PoA/Activity:	Silivri Wind Power Plant, Turkey
GS ID of the project/PoA/activity:	GS4264
GS Version:	2.2
Brief description of Project:	The project activity is a 45 MW wind power project, promoted by Silivri Enerji A.Ş. The purpose of the project activity is to generate clean electricity with utilization of wind energy. The annual electricity generation is estimated to be 143,327 MWh and the expected emission reduction is 80,442 tonnes of CO2eq/yr.
Project type: Energy/Land Use	Energy
For Renewable Energy Projects – intention to apply RECs Labels (y/n)	No
GS Stream (CDM/VER):	GS VER
Scale (large/scale/micro):	Large
GS Registration Date:	30/05/2016
GS Crediting period start date:	20/08/2014
CDM Registration Date:	Not applicable
CDM Crediting period start date:	Not applicable
Project Developer:	Silivri Enerji A.Ş. The
Project Representative:	Sekans Danışmanlık
Project Participants and any communities involved:	Silivri Enerji A.Ş. The
Host Country/Location:	Turkey
Methodologies applied:	ACM0002 "Consolidated baseline methodology for grid connected electricity generation from renewable sources" v.16.0.0
SDG Impacts:	1 - SDG 7 Affordable and Clean Energy 2 - SGD 8 Decent Work and Economic Growth 3 - SDG 13 Climate Action
Estimated amount of SDG Impact (GSVERs and others)	SDG 7: 143,327 MWh SDG 8: Minimum 1 training to be carried out annually SDG 13: 80,442 tCO2

SECTION A Sustainable Development Goals (SDG) outcomes

A.1 Relevant target for each of the three SDGs

The project contributes significantly to the region's sustainable development as enabling the use of renewable energy in Turkey and attract foreign and private investment into the Turkey's power sector. As well as various positive impacts created during the development and contrsuction phase of the project, following SDGs will be impacted every year:

SDG Goal	Relevant SDG Target	Indicator
SDG 7 Ensure access to affordable, reliable, sustainable and modern energy for all	7.2. By 2030, increase substantially the share of renewable energy in the global energy mix	7.2.1. Renewable energy share in the total final energy consumption -Electricity produced and supplied to the grid in MWh
SDG 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all Decent Work and Economic Growth	8.5. By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value 8.8. Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	8.5.2. Unemployment rate, by sex, age and persons with disabilities -Employment generated due to project activity during construction as well as operation phase 8.8.1. Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status -Number of trainings provided to the employees
SDG 13 Take urgent action to combat climate change and its impacts	13.3. Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	13.3.2. Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions -Emission reductions in tCO_2

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

SDG Goal	Monitoring Plan
SDG 7 Ensure access to affordable, reliable, sustainable and modern energy for all	Method: Monitored through power meter. Net electricity will be calculated by Project Participant operator on monthly basis. Frequency: The electricity will be measured continuously and recorded at least monthly. QA/QC procedures: A secondary meter is used for crosschecking the accuracy and both meters are

	calibrated if required. EPİAS [1] records are considered as the main source for the net electricity and the values are crosschecked with the data measured by meters. Net electricity exported is crosschecked with Meter Reading Forms issued by Project Owner and approved by governmental officers Purpose: To measure the electricity produced and supplied to the grid and thus calculation of emission reductions
SDG 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all Decent Work and Economic Growth	**-Employment generated due to project activity during construction as well as operation phase** Method: Monitored through Social Security System records Frequency: Once for each monitoring period QA/QC procedures: Transparent data collection, and reporting. Purpose: To identify employment generated due to project activity **-Number of trainings provided to the employees** Method: Monitored through Health and Safety trainings given to the personnel. Frequency: Once for each monitoring period QA/QC procedures: Transparent data collection, and reporting. Purpose: To identify the number of trainings provided to the employees
SDG 13 Take urgent action to combat climate change and its impacts	Method: Using processes and equations provided under "Tool to calculate the emission factor for an electricity system", Version 04.0.0 and referencing data from TEIAS statistics[2] Frequency: Once for each monitoring period QA/QC procedures: Transparent data collection, and reporting. Purpose: To calculate emissions avoided due to the project activity. The methodology ACM0002 v16.0.0 and "Tool to calculate the emission factor for an electricity

[1] EPİAS is the financial settlement centre of TEIAS (the national grid operator).

[2] https://www.teias.gov.tr/tr/iii-elektrik-enerjisi-uretimi-tuketimi-kayiplar-0

	system"(v.4) have been used to calculate net benefit (emission reductions).[3] Net benefit (emission reductions) are calculated as follows: $ERy = BEy - PEy - LEy$ (5) Where: ERy = Emission reductions in year y (t CO2/yr). BEy = Baseline emissions in year y (t CO2/yr). PEy = Project emissions in year y (t CO2/yr). LEy = Leakage emissions in year y (t CO2/yr). $PE_y = 0$ Ley=0 Then: $ERy = BEy$ $ERy = BEy = EGy * EF_{grid,CM}$ Where: EGy =Electricity supplied by the project activity to the grid (MWh). $EF_{grid,CM,y}$ = Combined margin CO2 emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system"(v.4).

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

Relevant SDG Indicator	13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions" and following target
Data/parameter	EG_{gross}
Unit	MWh
Description	Gross electricity production by fossil fuel power sources (2011-2013)
Source of data	TEIAS (Turkish Electricity Transmission Company) www.teias.gov.tr. The distribution of gross electricity generation by primary energy resources and the electricity utilities in Turkey (2011, 2012, 2013)
Value(s) applied	Detailed in the registered PDD under Section B.6.1.

[3] Please see the registered PDD for more detail.

Choice of data or Measurement methods and procedures	TEIAS, the Turkish Electricity Transmission Company is the official source for the related data, thus providing the most up-to-date and accurate information available..
Purpose of data	Calculation of baseline emissions and thus the baseline emissions-to demonstrate contribution to SDG Target 13.3.: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
Additional comment	-

Relevant SDG Indicator	13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions" and following target
Data/parameter	$EG_{net,y}$
Unit	MWh
Description	Net electricity generated by all power plants connected to the national grid excluding low-cost must run power plants between years 2011-2013
Source of data	Turkish Electricity Transmission Company (TEİAŞ), Annual Development of Turkey's Gross Electricity Generation of Primary Energy Resources (2006 - 2013) TEIAS
Value(s) applied	Detailed in the registered PDD (Table 16, Table 17)
Choice of data or Measurement methods and procedures	Once for each crediting period using the most recent three historical years for which the data is available at the time of submission of the PDD to the DOE for validation.
Purpose of data	Calculation Calculation of baseline emissions and thus the baseline emissions-to demonstrate contribution to SDG Target 13.3.: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
Additional comment	-

Relevant SDG Indicator	13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions" and following target
Data/parameter	HVi,y
Unit	Mass or volume unit
Description	Heating Values of fuels consumed for electricity generation in the years of 2011, 2012 and 2013
Source of data	Heating Values of fuels consumed for electricity generation in the years of 2011, 2012 and 2013 Source of data. Heating Values of Fuels Consumed İn Thermal Power Plants in Turkey by The Electric Utilities, TEIAS. See: https://www.teias.gov.tr/tr/turkiye-elektrik-uretim-iletim-istatistikleri
Value(s) applied	Detailed in the registered PDD (Table 22)

Choice of data or Measurement methods and procedures	There is no national NVC data in Turkey. However, TEIAS announces Heating values of fuels. This data is used to calculate annual NCVs for each fuel type. TEIAS is the national electricity transmission company, which makes available the official data of all power plants in Turkey.
Purpose of data	Calculation Calculation of baseline emissions and thus the baseline emissions-to demonstrate contribution to SDG Target 13.3.: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
Additional comment	-

Relevant SDG Indicator	13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions" and following target
Data/parameter	$FC_{i,y}$
Unit	Mass or volume unit
Description	Amount of fuel type i consumed in the project electricity system between years 2011-2013
Source of data	Annual Development of Fuels Consumed in Thermal Power Plants In Turkey By The Electric Utilities, TEIAS. https://www.teias.gov.tr/tr/turkiye-elektrik-uretim-iletim-istatistikleri
Value(s) applied	Detailed in the registered PDD (Table 23)
Choice of data or Measurement methods and procedures	TEIAS is the national electricity transmission company, which makes available the official data of all power plants in Turkey
Purpose of data	Calculation of baseline emissions and thus the baseline emissions-to demonstrate contribution to SDG Target 13.3.: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
Additional comment	-

Relevant SDG Indicator	13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions" and following target
Data/parameter	$NCV_{i,y}$
Unit	GJ/mass or volume unit
Description	Net Calorific Value of each fossil fuel type between the years 2011, 2012 and 2013
Source of data	Calculated by using HVi,y to FCi,y as Net Calorific Values of fuel types are not directly available in Turkey
Value(s) applied	Detailed in the registered PDD (Table 24, 22, 23)

Choice of data or Measurement methods and procedures	TEIAS is the national electricity transmission company, which makes available the official data of power plants in Turkey. Calculation of NCVs from national HVi,y and FCi,y data are preferred to default IPCC data as these are more reliable.
Purpose of data	Calculation of baseline emissions and thus the baseline emissions to demonstrate contribution to SDG Target 13.3.: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
Additional comment	-

Relevant SDG Indicator	13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions" and following target
Data/parameter	Sample Group for BM emission factor
Unit	Name of the plants, MW capacities, fuel types, annual electricity generations and dates of commissioning
Description	Most recent power plants which compromise %20 of total generation
Source of data	Annual Development of Fuels Consumed In Thermal Power Plants In Turkey By The Electric Utilities, TEIAS.: The reports are now available through the website of EPDK: https://www.epdk.org.tr/Detay/Icerik/3-0-66/elektrikuretim-kapasite-projeksiyonlari
Value(s) applied	Detailed in the registered PDD (Table 19)
Choice of data or Measurement methods and procedures	TEIAS is the national electricity transmission company, which makes available the official data of all power plants in Turkey. The latest data available during PDD preparation was for 2012 please find information as: https://www.epdk.org.tr/Detay/Icerik/3-0-66/elektrikuretim-kapasite-projeksiyonlari
Purpose of data	Calculation of baseline emissions and thus the baseline emissions to demonstrate contribution to SDG Target 13.3.: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
Additional comment	-

Relevant SDG Indicator	13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions" and following target
Data/parameter	$EF_{CO2\ i,y}$
Unit	tCO_2/TJ
Description	CO_2 emission factor of fossil fuel type i between years 2011-2013

Source of data	IPCC default values at the lower limit of the uncertainty at a 95% confidence interval as provided in table 1.4 of Chapter1 of Vol. 2 (Energy) of the IPCC Guidelines on National GHG Inventories. http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/2_Volume2/V2_1_Ch1_Introduction.pdf
Value(s) applied	Detailed in the registered PDD (Table 20)
Choice of data or Measurement methods and procedures	No plant specific and national emission factor data is available in Turkey. So, IPCC default data is used. For Fuel Oil Power Plants: 'Gas/Diesel Oil' data is used for conservativeness. For Coal Power Plants: In the 205th page of official document given in the link below, it is stated that Çolakoğlu and İçdaş utilizes 'Taşkömürü' (Hardcoal). And at the Table-2 in page 157 of the same document, Taşkömürü is dived in two groups: Bituminous and Antharcite. Since Sub-Bituminous Coal is under Brown Coal in the same table and since Other Bituminous Coal has lower EF than Anthracite in 1.4 of IPCC Guidelines, EF for 'Other Bituminous Coal' is used.
Purpose of data	Calculation of baseline emissions and thus the baseline emissions to demonstrate contribution to SDG Target 13.3.: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
Additional comment	-

Relevant SDG Indicator	13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions" and following target
Data/parameter	$\eta_{m,y}$
Unit	-
Description	Average net energy conversion efficiency of thermal power units connected to the grid
Source of data	Annex I the "Tool to calculate the emission factor for an electricity system" (v.4)
Value(s) applied	Detailed in the registered PDD (Table 20)
Choice of data or Measurement methods and procedures	For efficiency rates of Coal and Lignite Power Plants See Annex-1 of the Tool (highest rate is applied to be conservative) For Natural Gas and Oil plants efficiencies, default value given in the tool is applied: http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v2.pdf
Purpose of data	Calculation of baseline emissionsand thus the baseline emissions to demonstrate contribution to SDG Target 13.3.: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
Additional comment	-

Relevant SDG Indicator	13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions" and following target
Data/parameter	$EF_{grid,CM,y}$
Unit	tCO_2/MWh
Description	Emission factor of the Turkish grid determined ex- ante. Calculated specific emission factors based on the carbon emission data and the electricity production of the grid
Source of data	Detailed in the registered PDD
Value(s) applied	0.5612 tCO_2/MWh
Choice of data or Measurement methods and procedures	
Purpose of data	Calculation of baseline emissionsand thus the baseline emissions to demonstrate contribution to SDG Target 13.3.: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
Additional comment	-

SECTION B Safeguarding Principles Assessment

B.1 Analysis of social, economic and environmental impacts

Safeguarding principles	**Assessment questions**	**Assessment of relevance to the project (Yes/potentially/no)**	**Justification**	**Mitigation measure (if required)**
3.2 Gender Equality and Women's Rights	1.Gender assessment questions a. Is there a possibility that the Project might reduce or put at risk women's access to or control of resources, entitlements and benefits? b.Is there a possibility that the Project can adversely affect men and women in marginalised or vulnerable communities (e.g., potential increased	No	1. a. No, the project does not reduce access to or control of resources for women. b. No, the project does not involve in any form discrimination in any kind of form.The project respects the employees' freedom of association and their right to collective bargaining and is not complicit in restrictions of these freedoms and rights.	Not required

	burden on women or social isolation of men)? c.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)? d.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)? e.Does the Project design contribute to an increase in women's workload that adds to their care responsibilities or that prevents them from engaging in other activities? f.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? g.Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and priorities of women		c.The project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis. d.No, the project does not discriminate on basis of gender. e. No, the project design does not contribute to an increase in women's workload that adds to their care responsibilities or that prevents them from engaging in other activities. f.No, the project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis. g.No, the project is not complicit in restrictions of any freedoms and rights; and does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis. h.No, the project does not expose women and girls to further risks or hazards. 2. a.The project does not lead or contribute sexual harassment and/or any forms of violence against women. b. There is no such risk for the project. Participation in the project is voluntary. c. The project does not restrict women's rights or	

	and men in accessing and managing environmental goods and services? h.Is there a likelihood that the proposed Project would expose women and girls to further risks or hazards? 2.The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women. a.Sexual harassment and/or any forms of violence against women – address the multiple risks of gender-based violence, including sexual exploitation or human trafficking. b.Slavery, imprisonment, physical and mental drudgery, punishment or coercion of women and girls. c.Restriction of women's rights or access to resources (natural or economic). d.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. 3. Projects shall apply the principles of nondiscrimination, equal treatment, and equal pay for equal work, specifically.		access to resources (natural or economic). d.The project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis. 3.a. The Project provide equal opportunity for women and men to contribute both in volunteer and working positions. b. The project owner takes into account participation by both men and women. 3. The access of women or men, as the case may be, to Project participation and benefits is not limited. 4. The project does not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis. Turkey signed the convention of International Labour Organization. The related articles are 100 and 111. The project owner respects Article 5/8425 of Labour Law; which states no discrimination based on gender, race, religion, sexual orientation or any other basis is allowed.	

	a. 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. b.Introduce conditions that ensure the participation of women or men in Project activities and benefits based on pregnancy, maternity/paternity leave, or marital status. c. Ensure that these conditions do not limit the access of women or men, as the case may be, to Project participation and benefits. 4. The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks.			
3.4.3 Land Tenure and Other Rights	1. Does the Project require any change to land tenure arrangements and/or other rights? 2. For Projects involving land-use tenure, are there any uncertainties with regards land tenure, access rights, usage rights or land ownership?	Potentially~~No~~	1. The project does not involve and is not complicit in involuntary resettlement.No residents are required to be re-located. 2. The project does not involve land-use tenure, and there are no uncertainties with regards land tenure, access rights, usage rights or land ownership.The project land has been approved by the local Authorities. In addition to this, expropriation process has been finalized. Land register/ property	~~Not required~~ The registered capacity's expropriation activities were held during validation and the first monitoring period. The additional turbines (capacity extension) are within the registered and permitted (by EMRA) project area. The expropriation activities were executed for these turbines and land register/ property

			ownership documents have been received by the project owner and available to both the DOE and Gold Standard. To emphasize, there has been no resettlement, only the transfer of ownership has been occurred.	ownership documents received by the project owner were provided to the verifying DOE. These documents have also been uploaded to the registry.The project does not involve and is not complicit in involuntary resettlement. The distance between the archeological remains and closest turbine is approximately 30-40 m (including the newly built 4 turbines). However, this value is not stated in any document, it's just experienced during site works. However, Planning Permission has been obtained and approved by the related governmental body. Additionally, according to "Code of Protection of Cultural and Natural Properties", the construction works or approvals have to be stopped in case of archaeological

				remains or any damage to them. No permission is given in case of inconsistency.All documentation is available to the verifying DOE, also.
3.6.2 Negative Economic Consequences	1. The Project Developer shall demonstrate the financial sustainability of the Projects implemented, also including those that will occur beyond the Project Certification period. 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.	No	1. Financial Sustainability of the project has been discussed under Section B.5 of the registered PDD. The calculations are for the entire life of the project. 2. There are no negative economic impacts or potential risks to the local economy deriving the project activity.	Not required
4.1.1 Emissions	Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	The project activity is a wind power project and does not cause any greenhouse gas emissions in project scenario.	Not 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?	Yes	The auxiliary consumption of the Project is met from the national 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 activity will not have any adverse impact on the local water resources. The amount of water during construction is insignificant compared to the local water resources and did not affect adversely the local surface of groundwater resources. During operation period the project activity will not need process water as it's a wind power project. In addition, drinking water is supplied with bottled water.	Not required
4.2.1 Erosion and/or water body stability	1. Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion?	No	The project activity has developed activities for prevention of soil erosion. The planning has been done in a way that the amount of excavation soil is equalized to the filling volume and excavation soils are utilized within the operation area.	Not required
4.2.3 Landscapte modification and soil	1.Does the Project involve the use of land and soil for production of crops or other products?	No	The project activity as being a wind power project does not involve the use of land and soil for production of crops or other products. The project land have been approved by the local Authorities.	Not required
4.3.2 Vulnerability to Natural Disaster	1.Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	No	The Project will not be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions.	Not required

4.3.3 Genetic Resources	1.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 is not impacted by the use of genetically modified organisms or GMOs.	Not required
4.3.4 Release of pollutants	1.Could the Project potentially result in the release of pollutants to the environment?	No	As being a wind power project, the project activity does not lead to release of any pollutants. The project complys with the related regulations of Ministry of Environment and Urbanization.	Not required
4.3.5 Hazardous and Non-hazardous Waste	1.Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	No	During operation of the wind farm there are no positive nor negative impacts expected. During excavation and construction no hazardous, toxic or flammable materials were used. During the operation of the turbines, negligible waste oil is generated. The hazardous waste (waste oil) transfer is under the responsibility of turbine supplier (Nordex). Turbine supplier subcontract the designated/licensed companies by Ministry of Environment and Urbanizationto to transfer the waste oil to waste disposal plants.	Not required
4.3.6 Pesticides and fertilizers	1. Will the Project involve the application of pesticides and/or fertilisers?	No	The Project does not involve the application of pesticides and/or fertilisers.	Not required
4.3.7 Harvesting of forests	1.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	No	The Project does not have any impact on the quantity or nutritional quality of	Not required

	such as through crop regime alteration or export or economic incentives?		food available such as through crop regime alteration or export or economic incentives.	
4.3.9 Animal Husbandry	Will the Project involve animal husbandry?	No	The Project will not involve animal husbandry.	Not required

SECTION C Monitoring plan

C.1 Data and parameters to be monitored

Relevant SDG Indicator/Safeguarding Principle	SDG 7.2.1 Renewable energy share in the total final energy consumption
Data / Parameter	$EG_{facility,y}$
Unit	MWh
Description	Net electricity exported to the grid in the year y
Source of data	Electricity meter(s) Main Meter / Back-up Meter Manufacturer: EMH / EMH Serial Number: 4241393 / 4241394 Date of Installation: 08/08/2014 / 08/08/2014 Latest Test Date of the Meters: 10/07/2018 / 10/07/2018
Value(s) applied	The annual electricity fed to the grid is estimated as 143,327 MWh
Measurement methods and procedures	The net electricity is measured continuously by a power meter at the grid interface and recorded monthly. EPIAS records are the source of the exact electricity generation of the project and the imports from the grid. The quantity of net electricity delivered to the grid is crosschecked with the meter reading forms which are provided to the company by TEIAS.
Monitoring frequency	Continuous measurement and at least monthly recording
QA/QC procedures	• Back-up meter is used for crosschecking the accuracy and both meters are calibrated if required. • EPİAS records are considered as the main source for the net electricity and the values are crosschecked with the data measured by meters. • The Meter Reading Forms are used for crosscheck means. • TEIAS is responsible for calibration and maintenance of the devices. The periodical calibration or maintenance is under the responsibility of TEIAS and has been fixed as once in 10 years[4]. Since TEİAŞ meters are sealed by TEIAS, the project proponent cannot intervene with the devices. The periodic tests are executed on annual basis.
Purpose of data	Calculation of baseline emissions
Additional comment	-

Relevant SDG Indicator/Safeguarding Principle	Safeguarding Principle 4.3.4: Release of pollutants

[4] http://www.mevzuat.gov.tr/Metin.Aspx?MevzuatKod=7.5.6381&MevzuatIliski=0&sourceXmlSearch

Data / Parameter	Air Quality
Unit	tons
Description	Amount of annual net electricity generation, which is calculated by monthly EPIAS records, will be used to calculate estimated CO and NMVOC emission reductions by project activity.
Source of data	Data available from TUİK: http://www.tuik.gov.tr/PreHaberBultenleri.do?id=16174 Since the latest data of CO and NMVOC emissions from the electricity sector are available for the year 2012, the rate between the Net Electricity Generation in 2012 and CO and NMVOC emissions of 2012 have been used to calculate the emission reductions for this monitoring period.
Value(s) applied	CO: 0.160 tons and NMVOC: 0.034 tons per each GWh electricity generated
Measurement methods and procedures	The amount of reduced CO and NMVOC are calculated through the amount of electricity delivered to the grid through EPIAS records.
Monitoring frequency	Annually
QA/QC procedures	N/A
Purpose of data	To monitor compliance to Safeguarding Principle 4.3.4 (Release of pollutants)
Additional comment	-

Relevant SDG Indicator/Safeguarding Principle	Safeguarding Principle 4.3.4: Release of pollutants
Data / Parameter	Water Quality and Quantity
Unit	m^3
Description	Amount of wastewater to be discharged to the environment Wastewater produced by workers during operation is collected in an impermeable septic tank and later they are periodically transferred to wastewater treatment plant.
Source of data	-Data available from TUIK: http://www.tuik.gov.tr/PreHaberBultenleri.do?id=16175 The data for thermal power plants' wastewater indicators which were available during registration (2012 by TUIK), have been used to calculate the avoided wastewater discharge to the environment per year during the monitoring period. -Regarding Total Electricity Generation for 20126, TEIAS official data have been used: https://www.teias.gov.tr/tr/turkiye-elektrik-uretim-iletim-istatistikleri/2012 -Records of transfer of wastewater from power plant by sewage truck, if it was performed, will be used to demonstrate proper wastewater management

Value(s) applied	Avoidance of 26.3 m3 wastewater to be discharged the environment due to each GWh electricity produced
Measurement methods and procedures	The amount of avoided wastewater is calculated through the amount of electricity delivered to the grid through EPIAS records.
Monitoring frequency	Annually
QA/QC procedures	N/A
Purpose of data	To monitor compliance to Safeguarding Principle 4.3.4 (Release of pollutants)
Additional comment	-

Relevant SDG Indicator/Safeguarding Principle	Safeguarding Principle 4.3.11: Endangered Species
Data / Parameter	Biodiversity
Unit	N/A
Description	Observation of carcass/nest in the Project area
Source of data	Records by assigned technician by Plant Manager
Value(s) applied	Number of carcass/nest.
Measurement methods and procedures	Assigned technician by Plant Manager will monitor carcass/nest in the Project area and keep records in case of a carcass/nest
Monitoring frequency	Annually
QA/QC procedures	N/A
Purpose of data	To monitor compliance to Safeguarding Principle 4.3.11: Endangered Species
Additional comment	-

Relevant SDG Indicator/Safeguarding Principle	8.8.1. Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status
Data / Parameter	Quality of employment
Unit	-
Description	Quality of employment is monitored through the job-related trainings and certificates given to the personnel and occupational injuries
Source of data	Certificates/Attendance Lists for job-related trainings and project owner records for occupational injuries
Value(s) applied	-
Measurement methods and procedures	Training certificates or training attendance records and project owner records
Monitoring frequency	Once for each monitoring period
QA/QC procedures	N/A
Purpose of data	Monitoring the trainings to justify contribution to SDG 8.8.Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment
Additional comment	-

Relevant SDG Indicator/Safeguarding Principle	8.5.2. Unemployment rate, by sex, age and persons with disabilities
Data / Parameter	Quantitative employment and income generation
Unit	N/A
Description	Project participant gives priority to employees from local region. For number of local employees, Social Security System records are provided. Fair wage distribution and number of weekly working hours are also monitored through Social Security System.
Source of data	Social Security System records
Value(s) applied	16
Measurement methods and procedures	Social Security System records
Monitoring frequency	Each monitoring period
QA/QC procedures	N/A
Purpose of data	SDG 8.5.By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value
Additional comment	-

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

N/A

SECTION D Duration and crediting period

D.1 Duration of project

D.1.1 Start date of project

15/03/2013

D.1.2 Expected operational lifetime of project

The expected lifetime of the Nordex WPP is 25 years[5]. In addition to this, operational lifetime of the project is 49 years[6].

D.1 GS Crediting period of the project/activity

D.2.1 Start date of the ongoing GS crediting period

20/08/2014

[5] http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-10-v1.pdf

[6] Silivri WPP Generation License

D.2.3 End date of the ongoing GS crediting period

19/08/2021

D.2.3 Total length of the GS crediting periods

7 years, renewable

SECTION E Stacking of new assets

The project is not looking to stack new assets over GS VERs.

Appendix 1. Contact information of project participants

Organization name	Silivri Enerji A.Ş.
Registration number with relevant authority	
Street/P.O. Box	Fahrettin Kerim Gökay Cad
Building	No:36 Altunizade/Üsküdar
City	Istanbul
State/Region	N/A
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Country	Turkey
Telephone	+90 216 544 24 00
Fax	
E-mail	ismail.kuris@iltekenerji.com.tr
Website	
Contact person	
Title	
Salutation	Mr
Last name	Kuriş
Middle name	
First name	İsmail
Department	
Mobile	
Direct fax	
Direct tel.	
Personal e-mail	