

# GOLD STANDARD PASSPORT

## GOLD STANDARD PASSPORT

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## SECTION A. Project Title

Çeşme Wind Power Project, Turkey

## SECTION B. Project description

**ABK Çeşme RES Enerji Üretim A.Ş.** (hereafter referred to as “**ABK Çeşme**”) is investing into a new Wind Power project called **Çeşme Wind Power Project** (hereafter referred to as the “Project” or “**Çeşme WPP**”), which involves installation and operation of 18 MW wind power plant. The licence of the project was issued by Energy Market Regulatory Authority (EMRA) in May 25 of 2008.

An **estimated electricity net generation of 59.2 GWh per year** by the efficient utilization of the available wind energy by project activity will replace the grid electricity, which is constituted of different fuel sources, mainly fossil fuels. The electricity produced by project activity will result in a **total emission reduction of 33.8 tonnes of CO<sub>2</sub>e**. Moreover, project activity will contribute further dissemination of wind energy and extension of national power generation. It is expected that the generation of electricity will start as of Q1 2015 and will have an operational life of 20 years.

The project will help Turkey to stimulate and commercialise the use of grid connected renewable energy technologies and markets. Furthermore, the project will demonstrate the viability of grid connected wind farms which can support improved energy security, improved air quality, alternative sustainable energy futures, improved local livelihoods and sustainable renewable energy industry development. The specific goals of the project are to:

- reduce greenhouse gas emissions in Turkey compared to the business-as-usual scenario;
- help to stimulate the growth of the wind power industry in Turkey;
- create local employment during the construction and the operation phase of the wind farm;
- reduce other pollutants resulting from power generation industry in Turkey, compared to a business-as-usual scenario;
- help to reduce Turkey's increasing energy deficit;
- and differentiate the electricity generation mix and reduce import dependency.

As the project developer, **ABK Çeşme** believes that efficient utilization of all kinds of natural resources with a harmony coupled with responsible environmental considerations is vital for sustainable development of Turkey and the World. This has been a guiding factor for the shareholders towards the concept of designation and installation of a wind power project. Other than the objective of climate change mitigation through significant reduction in greenhouse gas (GHG) emissions, the project has been carried out to provide social and economic contribution to the region in a sustainable way. The benefits that will be gained by the realization of the project compared to the business-as-usual scenario can be summarized under four main indicators:

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## **Environmental**







The project activities will replace the grid electricity, which is constituted of different fuel sources causing greenhouse gas emissions. By replacing in the consumption of these fuels, it contributes to conservation of water, soil, flora and faunas and transfers these natural resources and also the additional supply of these primary energy sources to the future generations. In the absence of the project activity, an equivalent amount of electricity would have been generated from the power plants connected to the grid, majority of which are based on fossil fuels. Thus, the project is replacing the greenhouse gas emissions (CO<sub>2</sub>, CH<sub>4</sub>) and other pollutants (SO<sub>x</sub>, NO<sub>x</sub>, particulate matters) occurring from extraction, processing, transportation and burning of fossil-fuels for power generation connected to the national grid.

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## SECTION C. Proof of project eligibility

### C.1. Scale of the Project

Please tick where applicable:

Project Type	Large	Small
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<b>X</b>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>

### C.2. Host Country

The host country is Republic of Turkey.

### C.3. Project Type

Please tick where applicable:

Project type	Yes	No
Does your project activity classify as a Renewable Energy project?	<b>X</b>	<input type="checkbox"/>
Does your project activity classify as an End-use Energy Efficiency Improvement project?	<input type="checkbox"/>	<input type="checkbox"/>

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Please justify the eligibility of your project activity:

“Çeşme Wind Power Project, Turkey” is classified in the Renewable Energy Source category as electricity from non-fossil and non-depletable energy sources, in this case from wind, is fed into the Turkish electricity grid.

Pre Announcement	Yes	No
Was your project previously announced?	<input type="checkbox"/>	<b>X</b>

## C.4. Greenhouse gas

Greenhouse Gas	
Carbon dioxide	<b>X</b>
Methane	<input type="checkbox"/>
Nitrous oxide	<input type="checkbox"/>

## C.5. Project Registration Type

Project Registration Type	
Retroactive	<b>X</b>

Pre-feasibility assessment	Retroactive projects (T.2.5.1)	Preliminary evaluation (eg: Large Hydro or palm oil-related project) (T.2.5.2)	Rejected by UNFCCC (T2.5.3)
	<b>X</b>	<input type="checkbox"/>	<input type="checkbox"/>

If Retroactive, please indicate Start Date of Construction dd/mm/yyyy: \_\_\_\_\_

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## SECTION D. Unique project identification

### D.1. GPS-coordinates of project location

Wind Turbine No.	Longitude (E)	Latitude (N)
1	26° 19' 27"	38° 18' 26"
2	26° 19' 40"	38° 18' 18"
3	26° 19' 52"	38° 18' 13"
4	26° 19' 29"	38° 17' 56"
5	26° 19' 21"	38° 17' 44"
6	26° 19' 22"	38° 17' 33"

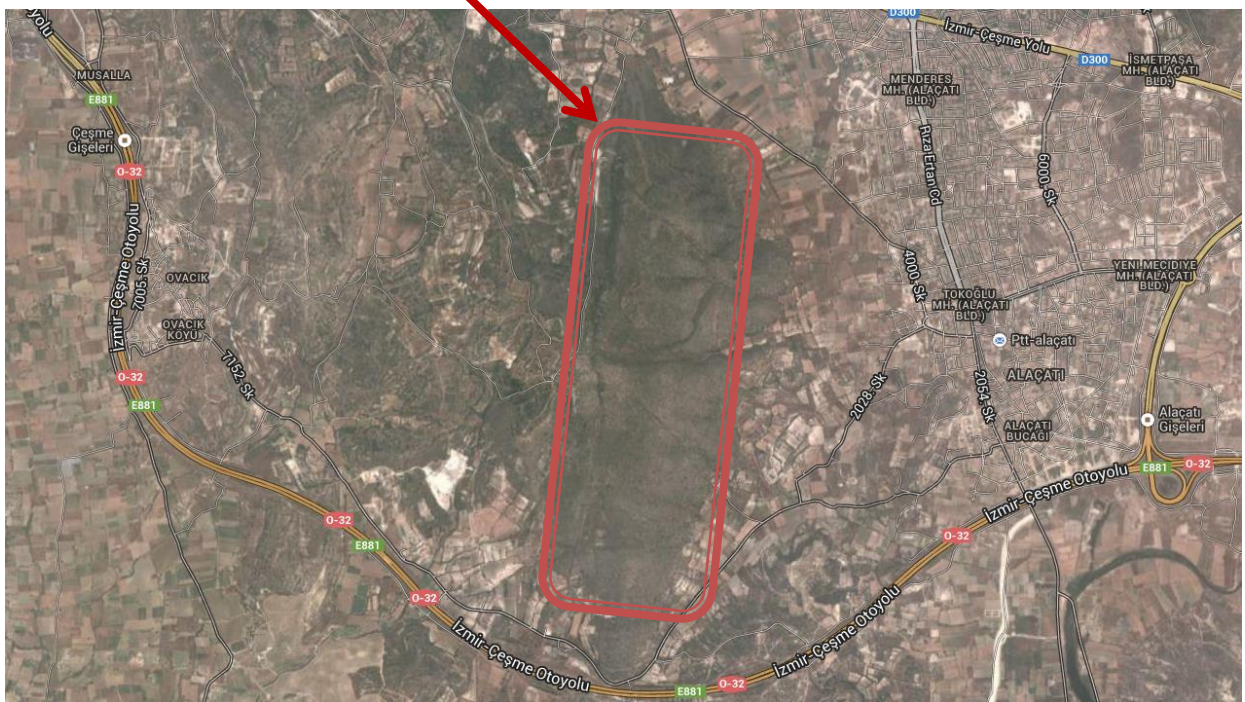
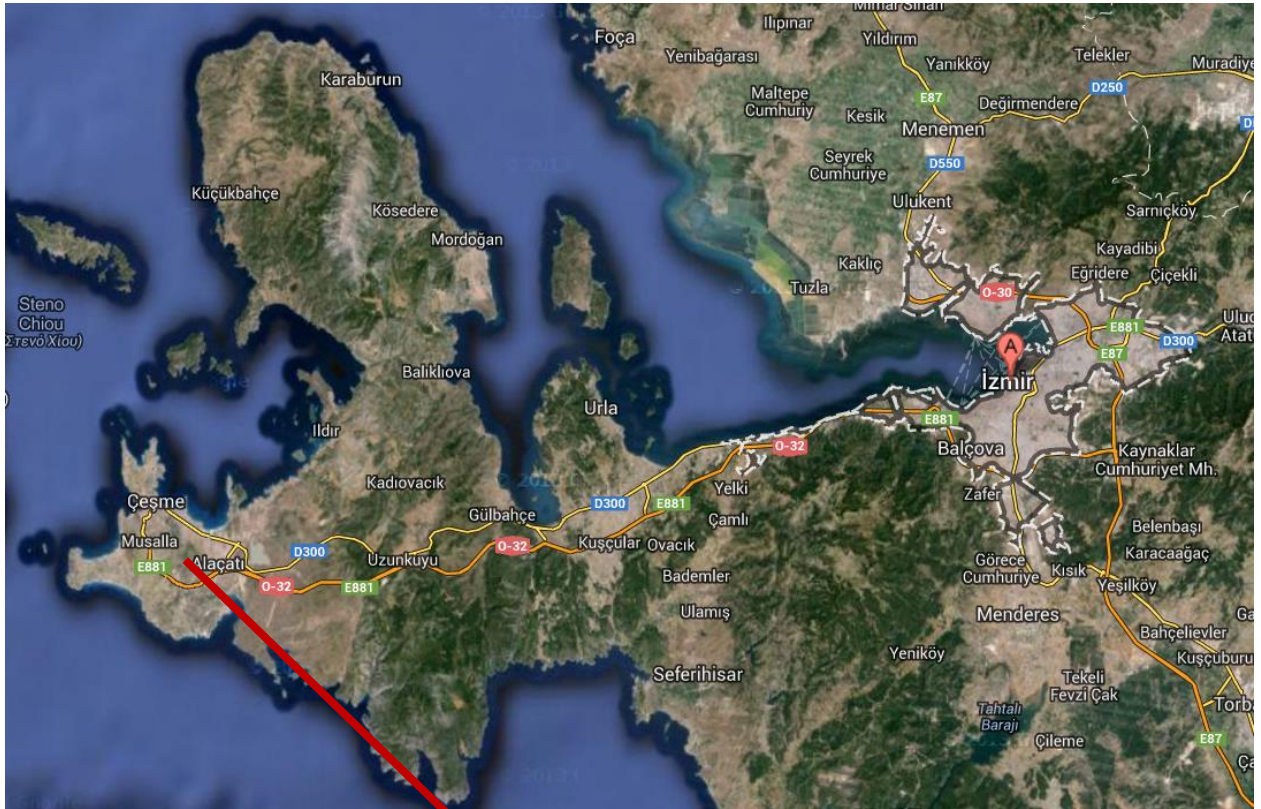


*Explain given coordinates*

The project site is located about 30 km away from İzmir. The project will be situated on the hill between Alaçatı district and Ovacık villages in the Çeşme region. The turbine towers will be built in a 750 m apart from surrounded area, placed approximately 200-400 m apart. The closest settlement to the project site is Ovacık Village which is located to the south west of the wind farm. The distance between the village and the closest wind turbine will be approximately 750 m.

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## D.2. Map



**Map 1:** Location of Çeşme Wind Power Plant Project

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## SECTION E. Outcome stakeholder consultation process

### E.1. Assessment of stakeholder comments

There has been no stakeholder meeting for this retroactive project. Stakeholder comments will be received during stakeholder feedback round.

### E.2. Stakeholder Feedback Round

Outcomes of Stakeholder feedback round will be reported in this document

## SECTION F. Outcome Sustainability assessment

### F.1. 'Do no harm' Assessment

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low, medium, high)	Mitigation measure
<b>Human Rights</b>			
1. The project respects internationally proclaimed human rights including dignity, cultural property and uniqueness of indigenous people. The project is not complicity in Human Rights abuses.	The project respects internationally proclaimed human rights including dignity, cultural property.  Turkey is a party to Universal Declaration of Human Rights: <a href="http://ua.mfa.gov.tr/detay.aspx?2634">http://ua.mfa.gov.tr/detay.aspx?2634</a>	Low/none	
2. The project does not involve and is not complicit in involuntary resettlement.	As described in the Project Introduction File (PIF) page number 29 no settlements are too close to the project site, and therefore no resettlements are necessary.	Low/none	
3. The project does not involve and is not complicity in the alteration, damage or removal of any critical cultural heritage.	According to PIF page number 29, the project is not involve and is in no conflict with critical cultural heritage.	Low/none	
<b>Labour Standards</b>			
4. The project respects the employees' freedom of association and their right to	The project respects the employees' freedom of association and their	Low/none	



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collective bargaining and is not complicit in restrictions of these freedoms and rights	rights. Turkey is a party to ILO Convention 87 Freedom of Association and Protection of the Right to Organise Convention, 1948: <a href="http://ua.mfa.gov.tr/detay.aspx?5305">http://ua.mfa.gov.tr/detay.aspx?5305</a>		
5. The project does not involve and is not complicit in any form of forced or compulsory labour.	The project does not involve in any form forced labour. Turkey is a party to <u>C29 Forced Labour Convention</u> : <a href="http://www.csqb.gov.tr/csqbPortal/ShowDoc/WLP+Repository/diyih/doc/ilosozlesmetr/29">http://www.csqb.gov.tr/csqbPortal/ShowDoc/WLP+Repository/diyih/doc/ilosozlesmetr/29</a>	Low/none	
6. The project does not employ and is not complicit in any form of child labour.	The project does not involve in any form child labour. Turkey is also a party to convention on Worst Forms of Child Labour since 1999. <a href="http://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_007917/lang-en/index.htm">http://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_007917/lang-en/index.htm</a>	Low/none	
7. 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.	The project does not involve in any form discrimination in any kind of form. Turkey is also party to Convention on Discrimination since 1972 to prevent any form of discrimination; <a href="https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&amp;mtdsg_no=IV-2&amp;chapter=4&amp;lang=en">https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&amp;mtdsg_no=IV-2&amp;chapter=4&amp;lang=en</a>	Low/none	
8. The project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe or unhealthy work environments	Workers might have occupational accidents during construction and operation phase. According to project developer, during construction and operational phase of the project "Health and Occupational Safety Regulation" will be followed. Regulation could be found under this link too: <a href="http://www.resmigazete.gov.tr/eskiler/2012/06/20120630-1.htm">http://www.resmigazete.gov.tr/eskiler/2012/06/20120630-1.htm</a>	Medium	Necessary health and safety measures will be taken during construction and operation phase, relevant staff will be trained to be able to work with high voltages.
<b>Environmental Protection</b>			
9. The project takes a precautionary approach in regard to environmental challenges and is not complicity in	Çeşme wind power project has minimum impact on environment and takes precautionary approach in	Low	

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<p>practices contrary to the precautionary principle. This principle can be defined<sup>1</sup> as: "When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically."</p>	<p>regard to environmental challenges as it is declared in PIF page number 42-43. Regulations which entered into force with Environmental Law Numbered 2872 will be Followed.</p>		
<p>10. The project does not involve and is not complicity in significant conversion or degradation of critical natural habitats, including those that are (a) legally protected, (b) officially proposed for protection, (c) identified by authoritative sources for their high conservation value or (d) recognised as protected by traditional local communities</p>	<p>The project does not involve and is not complicity in significant conversion or degradation of critical natural habitats as it is stated in the PIF<sup>2</sup>. As explained in the 9th safeguarding principle, negative impact of the project activity to the environment would be minimum.</p>	<p>Low</p>	
<b>Anti-Corruption</b>			
<p>11. The project does not involve and is not complicit in corruption</p>	<p>The project does not involve any kind of corruption. Turkey is a party to United Nation Convention against Corruption since 2006; <a href="http://ua.mfa.gov.tr/detay.aspx?15042">http://ua.mfa.gov.tr/detay.aspx?15042</a></p>	<p>Low/none</p>	

<sup>1</sup> The Wingspread Conference on the Precautionary Principle (1998)

<sup>2</sup> Çeşme WPP Project Introduction File (Page 19-20)

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## F.2. Sustainable Development matrix

Indicator	Mitigation measure	Relevance to achieving MDG	Chosen parameter and explanation	Final score
Gold Standard indicators of sustainable development.	If relevant copy mitigation measure from "do no harm" – table, or include mitigation measure used to neutralise a score of ‘-’	Check <a href="http://www.undp.or/mdg">www.undp.or/mdg</a> and <a href="http://www.mdgmonitor.org">www.mdgmonitor.org</a>  Describe how your indicator is related to local MDG goals	Defined by project developer	Negative impact: score ‘-’ in case negative impact is not fully mitigated score 0 in case impact is planned to be fully mitigated No change in impact: score 0 Positive impact: score ‘+’
Air quality		<b>MDG- 7: Ensure Environment Sustainability</b>  7.A Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources 7. B Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	Parameter: Amount of avoided CO, NMVOC  Explanation: Due to avoidance of fossil fuel combustion, these emissions will be reduced in parallel to reduced CO <sub>2</sub> .	+
Water quality and quantity			Parameter: Amount of avoided wastewater to be discharged to the environment by project activity.  Explanation: Thermal power plants produce considerable amount wastewater especially due to cooling. By the project activity, significant amount of wastewater discharge will be avoided.	+
Soil condition			Parameters: Emission of NOx Explanation: Emission of NOx	0

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			<p>due to baseline situation</p> <p>Baseline for parameters: Parameter a) 1.597 ton of NOx with each GWh electricity generated</p> <p>Future target for parameters: See Section G.</p>	
Other pollutants			<p>Parameters: Noise level during operation of the project activity.</p> <p>Explanation: During the operation of the wind farm there will be some noise due to turbines which is under allowed level.</p>	0
Biodiversity			<p>Parameters: Number of bird strikes to the turbines.</p> <p>Explanation: Bird strike is the main possible impact of wind projects on biodiversity</p>	0
Quality of employment	<p>Only staff of operation &amp; maintenance contractor who has climbing certificates will have right to access to towers (accessing the turbines).</p>	<p><b>MDG-1: Eradicate extreme poverty &amp; hunger</b></p> <p>1.B. Achieve full and productive employment and decent work for all, including women and young people</p>	<p>Parameter: Health and Safety and other trainings</p> <p>Explanation: Project developer ensures high standard health and safety conditions for the employees and provides Health&amp;Safety Trainings to employees. Some of the staff may get training on different kind of issues like operation and maintenance of power plant.</p> <p>Baseline for parameter: Not applicable</p> <p>Future target for parameter: All employees will be trained on Occupational Health and Safety issue.</p>	+
Livelihood of the poor		<p><b>MDG-1: Eradicate extreme poverty &amp; hunger</b></p> <p>1.A.Halve, between 1990 and 2015, the proportion of</p>	<p>Parameter: Number of people living under the poverty line</p> <p>Explanation: Income generation by local orders with project activity will have indirect impacts to changing living standards of the local people and number of</p>	0

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		people whose income is less than \$1 a day	people living under poverty line. Baseline for parameter: 0 Future target for parameters: Continuation of the current situation.	
Access to affordable and clean energy services			Parameter: Change in energy use of local people  Explanation: The project will help to reduce high share of imported fossil fuel dependency of Turkey.	0
Human and institutional capacity	The staff will be trained to be able to work with high voltages.		Parameter: Change in number of jobs and positions for women Explanation: Theoretically, project activity would create new jobs to women. However, due to lack of interest of women to these kinds of jobs stemming from norms of society, impact of the project to this indicator is expected to be neutral.	0
Quantitative employment and income generation		<b>MDG-1: Eradicate extreme poverty &amp; hunger</b>  1.A.Halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day	Parameter: Number of local employment  Explanation: The project will create new employments on the project area. Baseline for parameter: N/A Future target for parameter: At least 2	+
Balance of payments and investment		<b>MDG-8.D Develop a global partnership for development</b> Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term.	Parameter: Amount of avoided natural gas to be imported  Explanation: Turkey imports nearly all of natural gas consumed. The project will have positive impacts on balance of payments with shifting some of electricity generation from natural gas.  Baseline for parameter: Around 95,061 m <sup>3</sup> for each GWh of electricity generated by natural gas fired PPs.	+

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			Future target for parameter: See Section G	
Technology transfer and technological self-reliance		<b>MDG-8.F</b> In cooperation with The private sector, make available the benefits of new technologies, especially information and communications.	Parameter: Total number of employee having wind power plant related trainings.  Explanation: With this project, employees will be trained with wind power project related issues.  Baseline for parameter: Only operation related trainings for the staff employed in the existing power plants.  Future target for parameter: Continuation of baseline situation	0
<b>Justification choices, data source and provision of references</b>				
Air quality	<p>Electricity generated from the wind farm partially substitutes electricity generation from fossil fuel fired power plants that represent a large share of the Turkish grid generation mix. Thus, besides greenhouse gases, all other air pollutants (e.g. SO<sub>x</sub>, NO<sub>x</sub>), particle and VOC emissions are avoided by the project activity. For CO and MNVOC emission amount see <a href="http://www.tuik.gov.tr/PreHaberBultenleri.do?id=16174">http://www.tuik.gov.tr/PreHaberBultenleri.do?id=16174</a></p> <p>Dust emergence connected to the project activity appears only for a short time during the construction phase and will be caused by digging foundations, land arrangement works and construction of the roads. While construction will start on November 2013 which is rainy period of the project region, there would be minimum dispersion of the dust. Hence, we can conclude that there will be minimum impact of the dust emissions on the project area.</p> <p>Therefore, in the SDM the positive effect of the project on the air quality is scored with (+).The positive impact of wind energy on air quality is described in Sustainability Monitoring Plan (section G) of GS Passport. Net project generation shall serve as evidence of positive impact of the project activity on this indicator and will be monitored annually as indicated in Section G.</p>			
Water quality and quantity	<p>In the baseline, thermal power plants discharges significant amount of waste water to the environment after usage for cooling etc. Hence, with the project activity considerable amount of water discharge will be avoided with substituting partially thermal power plants. For Wastewater discharged by thermal PPs in 2012 see: <a href="http://www.tuik.gov.tr/PreHaberBultenleri.do?id=16175">http://www.tuik.gov.tr/PreHaberBultenleri.do?id=16175</a></p> <p>During operation of project activity only small amount of waste water to be discharged environment. Wastewater production is due to daily consumption of workers. During construction phase, employees live in a rent house located in Çeşme. In the project area, one septic tank has been digged. Since significant amount of wastewater will be avoided by the project activity, positive score is given to this indicator. Amount of avoided wastewater to be discharged to the environment will be monitored during operation of the project activity as described in the Sustainability Monitoring Plan (section G) of GS Passport.</p>			
Soil condition	<p>In the baseline, thermal power plants emits significant amount of NO<sub>x</sub> which have negative impact to the quality of soil. The adverse affect of emissions of NO<sub>x</sub> on soil conditions is acid rains. Acid rains can damage soil conditions badly. With proposed project activity significant amount of NO<sub>x</sub> emission will be avoided due to substituting partially thermal power plant electricity generation. For NO<sub>x</sub> emission amount see TUIK: <a href="http://www.tuik.gov.tr/PreHaberBultenleri.do?id=16174">http://www.tuik.gov.tr/PreHaberBultenleri.do?id=16174</a>For net electricity generation in 2012 see TEİAŞ:</p>			

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	<p><a href="http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2012/uretim%20uketim(23-47)/34(84-12).xls">http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2012/uretim%20uketim(23-47)/34(84-12).xls</a> Lubrication oil for turbines does not contain any carcinogenic material and waste oil will be collected and treated according to “Regulation on Dangerous Waste Control” and “Regulation on Waste Oil Control”. Waste oil will be collected in an oil-proof container and will be handed to licensed institution for disposal.</p> <p>There will be a dust emission during excavation which will be under limits assessed by national authority. Any kind of explosive material will not be used during excavation and excavated earth from turbine foundation or for access road construction will be used to refill turbine holes and excess excavated earth will be laid over the top of project area. Excavated earth will not be carried to another place. This procedure is explained in PIF page 6.<sup>3</sup> Therefore, in the SDM the positive effect of the project on the soil condition is scored with (0).</p>
Other pollutants	<p>For this indicator, noise is defined as relevant parameter with the project activity. Since impact of noise can be significant only close area of the project, surrounding area of the project activity is selected as impact assessment boundary and for the baseline, continuation of current situation which is noise stemming from wind, movement of leaf and daily life in the close villages.</p> <p>In the context of the wind farms noise of the turbines can be considered under other pollutants. The distance of the project to closest settlement (Ovacık village) is more than 750 km. While noise level is 55.00 dBA in 500 meter from WPP, regarding Distance Related Noise Graphic for industrial plants according to Regulation of Assessment and Management of Environmental Noise, the noise level from Çeşme WPP is far below allowed level<sup>4</sup> i.e., the noise caused by the wind turbines will not affect the villages in the area. Therefore, in the SDM the negligible effect of the project on the other pollutants is scored with (0).</p> <p>Other pollutant produced by the project activity is waste oil, which is occasionally used for maintenance of turbines. Waste oil produced during both construction and operation phases will be handled in accordance to the regulations. Waste oil produced during both construction and operation phases will be handled in accordance to the Waste Oil Control Regulation was published in the Official Gazette No. 26952 dated 30 June 2008<sup>5</sup>.</p> <p>Therefore, in the SDM the negligible effect of the project on the other pollutants is scored with (0). Since the indicator is scored (0) and noise level in the close settlement is negligible. The parameter is related with noise level during operation will be not be monitored as described in Sustainability Monitoring Plan (section G) of GS Passport.</p>
Biodiversity	<p>For this indicator, the impact of the project activity can be on birds.</p> <p>The project area consists of treasury land and private land positioned on the hills and it is not natural protection zone. According to PIF, there is no endemic species around the project area<sup>6</sup>. The dominant vegetation consists of small trees, bushes and grassland.</p> <p>In the project area, there is no risk for birds, because project area is neither on the way for migrating birds nor an area for birds, according to PIF<sup>7</sup>. Therefore, in the SDM the negligible effect of the project on biodiversity is scored with 0.</p>
Quality of employment	<p>In context of wind power projects, height of the towers and rotating parts (such as blades) has some accident risks. Only trained and certificated personnel shall have access to turbines. For Çeşme WPP operation &amp; maintenance contractor has the sole responsibility for operation and maintenance. Hence, only trained and certificated staff of the contractor has right to access to towers, climb and perform necessary actions on turbines in case of emergency or fault. Therefore, there is no project related safety risk for this project. Project developer will also ensure healthy and safe working conditions for the employers with internal procedures and equipments. Since project employer</p>

<sup>3</sup>Çeşme WPP Project Introduction File (Page 6)

<sup>4</sup> Çeşme WPP Project Introduction File (Page 8 - 10)

<sup>5</sup> Çeşme WPP Project introduction file (page 20)

<sup>6</sup> Çeşme WPP Project Introduction File (Page 14-18)

<sup>7</sup> Çeşme WPP Project Introduction File (Page 18)

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	<p>will not face to project specific risks (ie. climbing to tower) in the consolidated SDM the Quality of Employment indicator is scored with (+).</p> <p>Request of local stakeholders about employment has been taken into account and workers have been employed from local people.</p> <p>Since this indicator is scored with positive, chosen parameter which is Health &amp; Safety conditions of employers and number of local employees will be monitored but parameter of defined mitigation measure which is 'accessing the turbines' will be monitored as described in the Sustainability Monitoring Plan (section G) of the GS Passport.</p>
<p>Livelihood of the poor</p>	<p>Generating electricity from resources that was not used before, generates an additional income to the local community, influencing the poverty alleviation, particularly in the rural areas, and accelerates the regional economic development. The stakeholders also confirmed that the project will have positive impacts on the livelihood of the poor by scoring (+) to this indicator. Also project developer is recruiting personnel for security or construction of the project from close villages, subcontractors are also from the same region. However, since monitoring of direct positive impacts of this parameter on livelihood of the poor is difficult, this parameter is scored (0) in the SDM to be conservative. Since this indicator is scored zero and no mitigation measure is required chosen parameter, i.e. total local order placement, will not be monitored.</p>
<p>Access to affordable and clean energy services</p>	<p>As a local energy source, wind power helps to mitigate Turkey's high import dependency and thus improves the access to energy services, especially in the scenarios of import stops or energy price hikes. The International Energy Agency criticises dependency on oil and gas imports and demands for expansion of renewable energy in Turkey (cf. IEA: Energy Policies, Turkey 2005 review, 2005, pages 85, 100 and 129). However, as the improved access to energy services does not affect the local public (as the electricity is delivered to the grid) and cannot be assigned to specific consumers and therefore not be monitored, a conservative score of zero is applied to this indicator.</p> <p>Since this indicator is scored with zero and there is no mitigation measure for this indicator, chosen parameter, i.e. change in energy use of local people, will not be monitored</p>
<p>Human and institutional capacity</p>	<p>Even though project will create significant amount job opportunities, please refer to 'Quantitative employment and income generation' indicator, due to lack of interest of women to these kind of jobs stemming from norms of society, impact of the project to this indicator is expected to be neutral.</p> <p>Project activity will not have any impact to lands and villagers will continue their pre-project activities after project implementation. Since impact of the project activity to this indicator is scored zero, selected parameter will not be monitored.</p>
<p>Quantitative employment and income generation</p>	<p>Within the installation of the project, there will be created employment opportunities for workers (civil services and turbine installations). Around 40 new working places during the plant installation will be created. During the operation of the wind farm likely 12 persons will be employed. However, since it couldn't be clearly substantiated that wind power plants lead to higher employment comparing with conventional power plants such, this indicator is scored with zero (+) in the SDM.</p> <p>The positions at the wind farm require skilled workers, which will be achieved by adequate trainings. In addition to the skilled employees, there will be employed some security staff in both stages. Because of the introduced new technology, the regional tourist interest in the region will increase, which is expected to influence the regional development and with it the employment situation.</p> <p>Trainings of employees will be monitored with documentation as described in Sustainability Monitoring Plan (section G) of GS Passport.</p>
<p>Balance of payments and</p>	<p>The project and its role in strengthening the sustainable sector of electricity generation in Turkey tend to contribute to mitigation of import dependency. Electricity generation from wind sources is completely independent from any</p>



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investment	<p>imports and thus does not have any negative effects on the balance of payments.</p> <p>The project generation will shift correspondent amount of natural gas fired electricity generation. With this, payments for natural gas imported will decrease. Hence the project will have positive impact on this indicator and it is scored with (+) in the SDM.</p> <p>The positive effect of the project to this indicator is described in Sustainability Monitoring Plan (section G) of the GS Passport. Share of natural gas fired electricity in Turkish electricity mix will be reported to show continuous positive impact of the project as described in section G.</p>
Technology transfer and technological self-reliance	<p>As the project developer is a Turkish company using the returns from the GS VER project to enable the realization of the wind farm, the Turkish capabilities, competencies and self-reliance regarding the introduction of innovative technologies are strengthened. The fact that the project activity is not common practice in Turkey is comprehensively derived in section B.4 part of the PDD). The project developer considers the investment into and the operation of a new technology in Turkey as a contribution to technological self reliance due to the gathered experience with the proposed project. And some of the employees will be trained for wind power plant related issues. However, since it is difficult to substantiate and monitor that these trainings will lead an important know-how and technology transfer, this indicator is scored with (0) in the SDM, to be conservative. Since this indicator is scored zero and no mitigation measure is required chosen parameter, i.e. total number of employee having operation and maintenance certificates will not be monitored</p>

### SECTION G. Sustainability Monitoring Plan

No	1	
Indicator	Air Quality	
Mitigation measure	No mitigation measure.	
Chosen parameter	Amount of CO and NMVOC emissions	
Current situation of parameter	According to latest official data CO and NMVOC emissions due to electricity generation in 2012 are: 0.180 tons/GWh and 0.038 tons/ GWh respectively <sup>8</sup> .	
Estimation of baseline situation of parameter	No quantitative information is available for projection of described emission rates. Continuation of current emission rates is estimated in case of baseline situation.	
Future target for parameter	Reductions of proportionate amount in described emissions during operational life of the project activity. When electricity generation amount (59.2 GWh/y) is considered for the project activity then expected annual emission avoidances with project implementation becomes 10.6 and 2.3 tons respectively for each parameter.	
Way of monitoring	How	Amount of annual net electricity generation, which is calculated by monthly settlement notifications of PMUM based on monthly meter readings, will be used to calculate estimated CO and NMVOC emission reductions by project activity
	When	Annually
	By who	Assigned technician by Plant Manager or assigned carbon consultant

<sup>8</sup> The unit emissions are calculated as dividing emission amount for each parameter with net electricity amount. (For CO and NMVOC emission amounts see TUIK (table 7 and 8 at the bottom of page): <http://www.tuik.gov.tr/PreHaberBultenleri.do?id=13482> For net electricity generation in 2011 see TEİAŞ [http://www.teias.gov.tr/TurkiyeElektrikIstatistikleri/istatistik2011/uretim%20tuketim\(22-45\)/33\(84-11\).xls](http://www.teias.gov.tr/TurkiyeElektrikIstatistikleri/istatistik2011/uretim%20tuketim(22-45)/33(84-11).xls) Calculation is further substantiated in Monitoring Plan of CM Calculation Worksheet, which is available to DOE.

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No		2
Indicator		Water Quality and Quantity
Mitigation measure		Wastewater produced by workers during construction and operation is collected in an impermeable septic tank, which was constructed on the site. Later they will be periodically disposed of.
Chosen parameter		Amount of wastewater to be discharged to the environment
Current situation of parameter		In 2012; 26,300 m <sup>3</sup> wastewater is discharged the environment due to each GWh electricity produced <sup>9</sup> .
Estimation of baseline situation of parameter		Continuation of current situation
Future target for parameter		Avoidance of around 1,557.9 m <sup>3</sup> wastewater discharge to the environment per year.
Way of monitoring	How	Amount of annual net electricity generation, which is calculated by monthly settlement notifications of PMUM based on monthly meter readings, will be used to calculate estimated amount of avoided wastewater discharge by project activity.  Records of transfer of waste water from power plant by sewage truck, if it was performed, will be used to demonstrate proper waste water management
	When	Annually
	By who	Assigned technician by Plant Manager or assigned carbon consultant

No		3
Indicator		Quality of employment
Mitigation measure		Necessary health and safety measures will be taken during construction and operation phase, relevant staff will be trained to be able to work with high voltages.
Chosen parameter		Health & Safety trainings
Current situation of parameter		Not applicable.
Estimation of baseline situation of parameter		Not applicable.
Future target for parameter		Continuation of current situation
Way of monitoring	How	Training attendance list and/or certificates. Safety measures and equipments will be shown to DOE.
	When	Annually (Once at the end of the each monitoring period). After first verification period, only new cases will be reported. Safety measures and equipments will be shown to DOE during each site visit for verification.
	By who	Assigned technician by Plant Manager or assigned carbon consultant.

<sup>9</sup> For Wastewater discharged in 2012 by thermal PPs see cell A5 of Table-2 from:

<http://www.tuik.gov.tr/PreHaberBultenleri.do?id=16175> (Below the page to be onepd , Table-2 cell B10)  
Calculation is further substantiated in Monitoring Plan sheet of CM Calculation Worksheet, which is available to DOE.

## GOLD STANDARD PASSPORT

No	4	
Indicator	Quantitative employment and income generation	
Mitigation measure	None	
Chosen parameter	Number of employment	
Current situation of parameter	Number of employment from agriculture	
Estimation of baseline situation of parameter	Continuation of current situation	
Future target for parameter	Additional employment from project region with project.	
Way of monitoring	How	For number of local employment: social insurance registries and receipts of employees. After first verification, only changes in employees will be reported.
	When	Number of local employment: Annually
	By who	Assigned technician by Plant Manager or assigned carbon consultant.

No	5	
Indicator	Balance of payment and investments	
Mitigation measure	No mitigation measures are required.	
Chosen parameter	Amount of payment for natural gas to be imported for electricity generation.	
Current situation of parameter	According to TEİAŞ 23,090,121 thousand m <sup>3</sup> natural gas is consumed for electricity generation in 2012 <sup>10</sup> . In 2012 Electricity generation amount from natural gas is 104,499.2 GWh and share of natural gas in the electricity mix is 43.63% <sup>11</sup> . Since Turkey imports 98.6% of consumed natural gas, it is calculated that for each GWh electricity generation 95,061 m <sup>3</sup> natural gas is imported in 2012.	
Estimation of baseline situation of parameter	According to the projections of TEİAŞ (See Table-7 in B.4 part of the PDD), dependency to natural gas for electricity generation will remain high till the end of 2017 with 44.02% share of the electricity mix in this year.	
Future target for parameter	Avoidance of around 5,627,625 m <sup>3</sup> natural gas import each year by generation of project activity, which is worth about 2,352,724 EUR per year.	
Way of monitoring	How	TEİAŞ statistics for natural gas share in the electricity mix shall help to demonstrate the high import dependency. Amount of annual net electricity generation, which is calculated by monthly settlement notifications of PMUM based on monthly meter readings, will be used to calculate correspondent amount of currency saved by project activity with help of above calculated factor.
	When	Annually
	By who	Assigned technician by Plant Manager or assigned carbon consultant.

<sup>10</sup> <http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2012/yak%C4%B1148-53/49.xls>

<sup>11</sup> [http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2012/uretim%20tuketim\(23-47\)/37\(06-12\).xls](http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2012/uretim%20tuketim(23-47)/37(06-12).xls)

# GOLD STANDARD PASSPORT

## Additional remarks monitoring

# GOLD STANDARD PASSPORT

## SECTION H.    **Additionality and conservativeness**



This section is only applicable if the section on additionality and/or your choice of baseline does not follow Gold Standard guidance

### **H.1.    Additionality**

**Not Applicable.**

### **H.2.    Conservativeness**

**Not Applicable.**

# GOLD STANDARD PASSPORT

**ANNEX 1 ODA declaration**

**ANNEX 2 Important Bird Areas Information Notes**

**2.2 Gold Standard Cover Letter**