GOLD STANDARD PASSPORT

GOLD STANDARD PASSPORT

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GOLD STANDARD PASSPORT

SECTION A. Project Title

GUNAYDIN WPP
Version:06
Date:02/06/2014

SECTION B. Project description

Günaydın Wind Power Plant (WPP) project which is initially designed as 12.5MWm/10MWe capacity as per the license issued on 09/02/2012, was commissioned on 20/11/2012. The project is owned by Manres Elektrik Üretim A.Ş, a member of Fina Group and the project is located near Yaylaköy Village in Manyas District at Balıkesir Province in Turkey. Fina Enerji is a holding company involved in the development, generation sales and trading of renewable energy. The capacity of wind power projects under development is about 700 MW spreading over 7 different regions in Turkey. (For more information see, www.finaenerji.com.tr) The project owners have decided to increase the capacity of the project to 20 MWm/20MWe and the upgrade process was realized on 31/03/2014

Originally a 49 years electric power generation license for the proposed wind farm (License No. EÜ/3490-17/2141, dated November 11, 2011) has been secured from the Energy Market Regulatory Authority (EMRA) by Fina Enerji. For the upgraded, plant necessary amendments have been issued on the official license.

In the final design, the project is composed of 8 turbines with 2.5 MWm capacity each where the total electricity output will be capped at 20 MWe.[1]
GE 2.5 XL and GE 2.75 turbines with 85 m hub height are used in the proposed project. The turbines have a cut in speed of 3m/s and cut out speed of 25 m/s. The rotor swept area of the turbines is 7,854 m^2 with a rotor diameter of 100 m. Each turbine has 3 rotor blades. The turbine towers are installed on a concrete base that covers an area of about 400m^2. [2]

The produced energy is connected to the national grid at Mustafakemalpaşa Substation via 34.5 kV voltage energy transmission line

According to the Turkish Environmental Impact Assessment (EIA) Regulation, an environmental Project Information File (PIF) was required for the development consent of the proposed wind farm. The PIF was prepared and submitted to the Balıkesir Provincial Directorate of Environment and Forestry (PDoEF) in March 2009. The Balıkesir PDoEF reviewed the PIF and issued an “EIA is not Required” decision for the proposed wind farm, thus, a detailed EIA was not prepared for the proposed wind farm.

[1] Amended Generation License,–Special Provisions Section 1

[2] Gunaydın WF ESIA Report page 32

With the additional capacity, the annual energy production is expected to be around 55.5 GWhwhich approximately corresponds to avoidance of 33,300 tonnes of CO_2 annually.

Construction of the project had started in April 2012 and was finalized by November 2012. [3] Extension project is expected to start in July 2014 and planned to be completed by December 2014.

Milestone	**Date**
Preliminary EIA	February 2009
Contribution Fee Agreement	24/09/2011
License Issuance	11/11/2011
Collecting offers for carbon agreement	15/11/2011
EM Equipment Purchase Contract*	20/12/2011
Carbon Agreement	24/01/2012
EIA Exemption Letter	25/01/2012
License Revision	09/02/2012
LSC Meeting	21/02/2012
Connection Agreement	03/04/2012
Construction Subcontractor Agreement	03/04/2012
Forest Permission	20/04/2012
Commissioning Date	20/11/2012
LSC meeting for Capacity Extension	31/10/2013
Loan Agreement for Extension	27/06/2013
EIA Exemption Letter for Capacity Extension	05/03/2014
Turbine Agreement for Capacity Extension	18/03/2014
Amended License for Capacity Extension	31/03/2014
Expected Start of Construction for Extension	July 2014
Expected commissioning date for Extension	December 2014

[3] Provisional Acceptance Document

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SECTION C. Proof of project eligibility

C.1. Scale of the Project

Project Type	Large	Small
	☐	☐
	☐	☐
	☐	☐
	■	
	☐	☐

	☐

C.2. Host Country

TURKEY

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C.3. Project Type

Project type	Yes	No
Does your project activity classify as a Renewable Energy project?	■	☐
Does your project activity classify as an End-use Energy Efficiency Improvement project?	☐	■

Project activity involves construction and operation of a 20 MWe capacity(10MWe initial operation + 10MWe design change) wind power plant for electricity generation. Project category is included in the sectoral scope 1 “Energy Industry – Renewable Sources” according to the UNFCCC definition

Pre-Announcement	Yes	No
Was your project previously announced?	☐	■
Carbon credit has been taken into account by project investors in making the project decision to proceed. Carbon income was also taken into account by the financier banks as an integral part of their decision to provide loans to fund the project.		

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C.4. Greenhouse gas

Greenhouse Gas	
Carbon dioxide	■
Methane	☐
Nitrous oxide	☐

C.5. Project Registration Type

Project Registration Type	
Regular	■

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)
	☐	☐	☐

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SECTION D. Unique project identification

D.1. GPS-coordinates of project location

Zone(35S) (ED50)	Easting(m)	Northing(m)
T1	586478	4425918
T2	586566	4425088
T3	586463	4425636
T4	586268	4425305
T5	585994	4425329
EX1	586582	4426185
EX2	586792	4425776
EX3	586249	4425719
Switchyard	586009	4425184

Table1. Turbine & Switchyard Coordinates

Gunaydın WPP's 5 existing and 3 additional wind turbines are all planned to be located on the hills near Yaylaköy Village in Manyas District of Balıkesir Province

D.2. Map

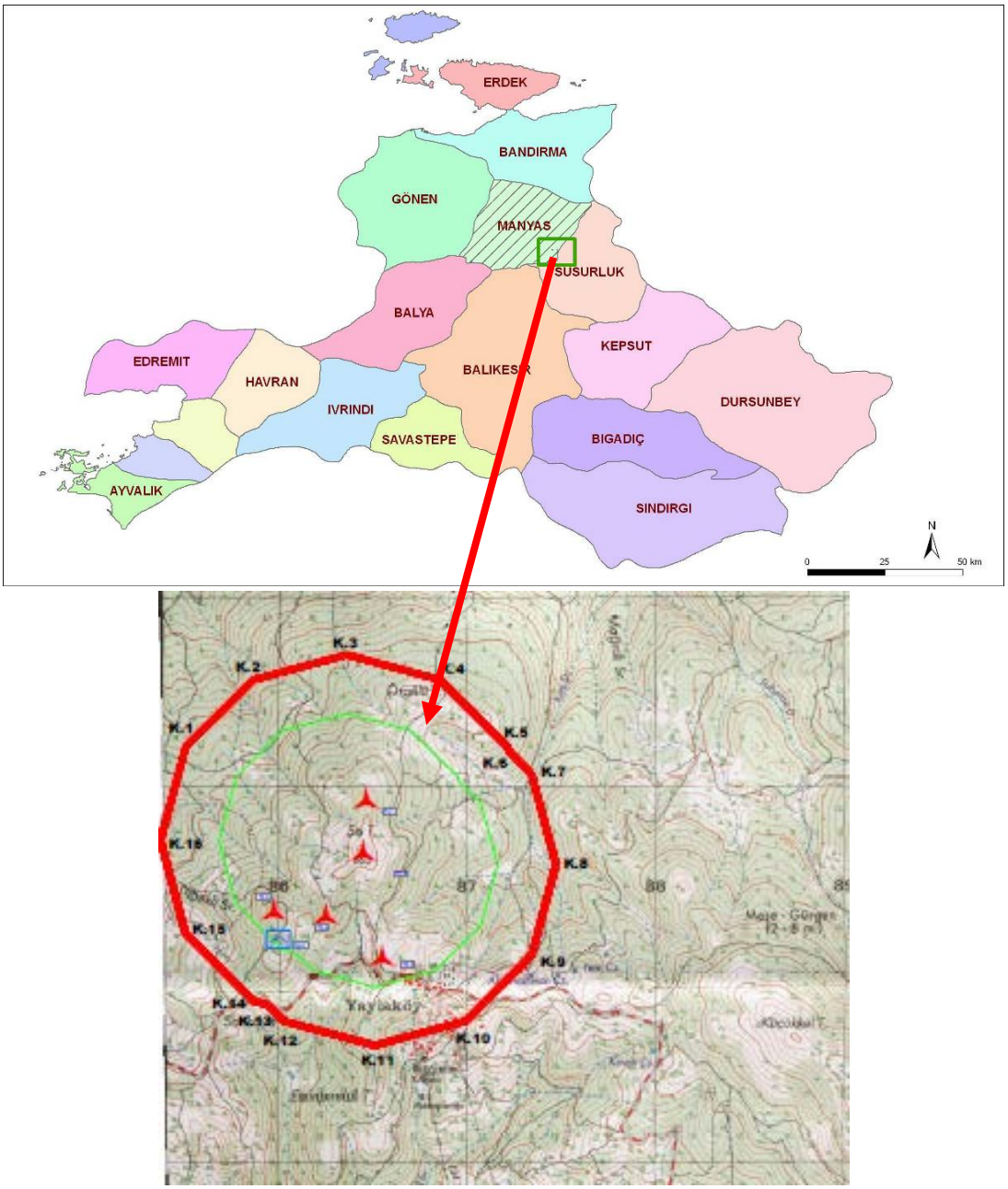


Figure 1: Project Location and Initial Design Turbine Positions

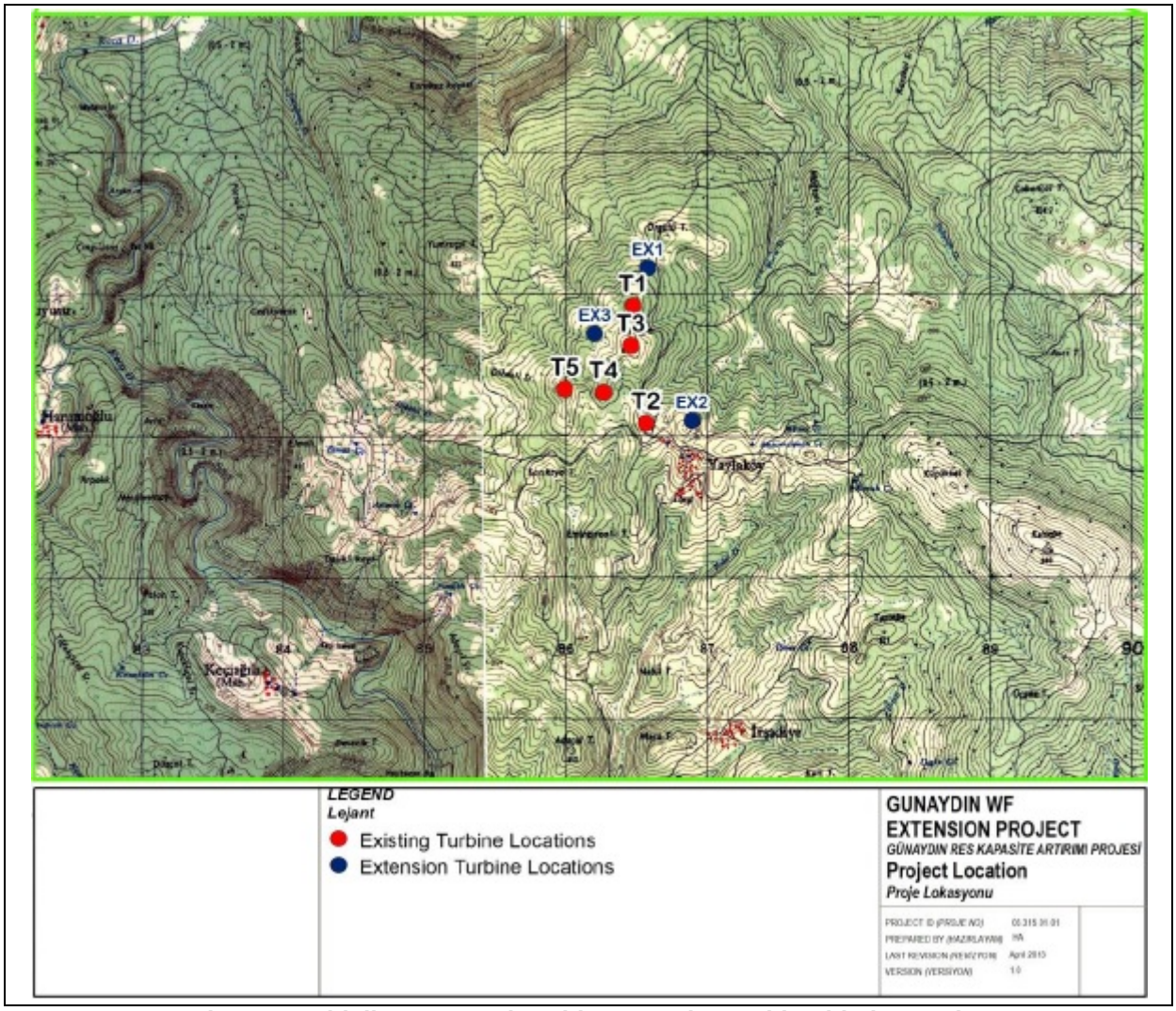


Figure 2: Initially Proposed Turbine Locations with added capacity

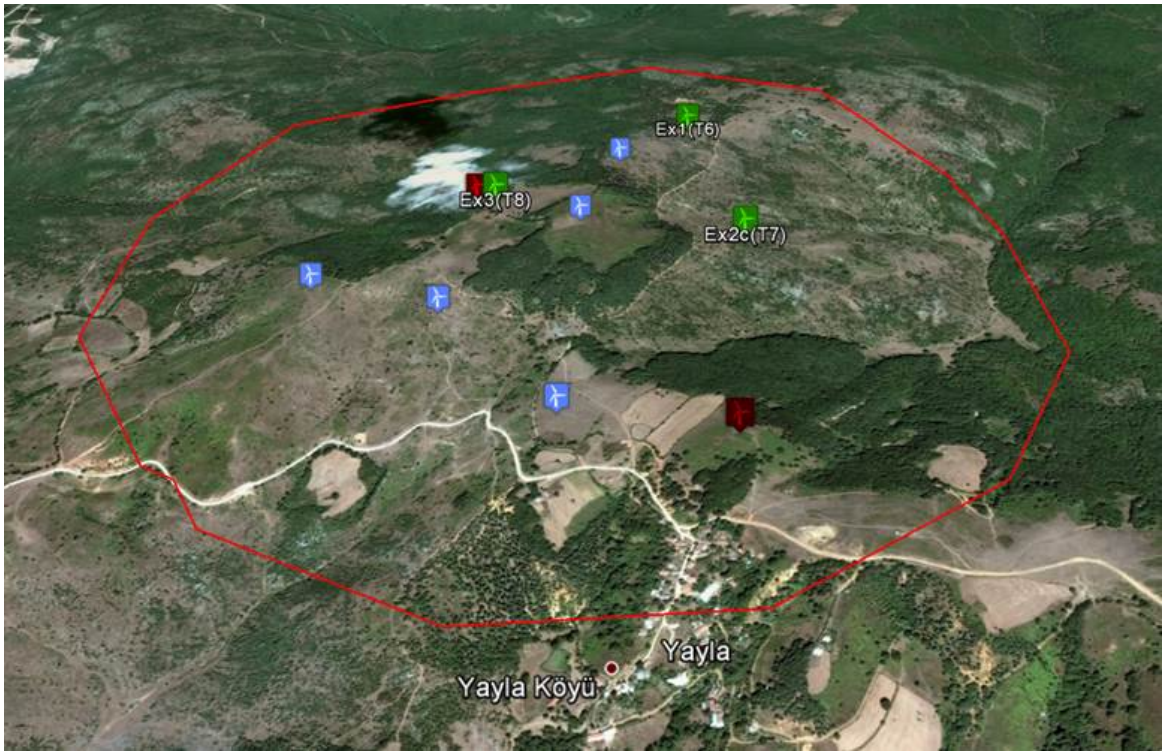


Figure 3: Final Turbine Positions (Blue: Existing , Red: Moved, Green: New)

SECTION E. Outcome stakeholder consultation process

E.1. Assessment of stakeholder comments

For the initial design, the stakeholder consultation meeting was held at 14:30 on Tuesday, 21th of February, 2012 in Yaylaköy Village, Manyas District of Balıkesir Province. The meeting was organized in line with the Gold Standard requirements. The stakeholders and the list of invitations are identified accordingly.

The meeting covered all agenda items recommended by Gold Standard.

Agenda

Venue: Village Room of Yaylaköy Village

14:30-14:45 Opening and Introduction of the Günaydın Wind Power Plant Project
14:45 -15:00 Climate Change and Carbon Markets, Global Tan Energy
15:00 -15:20 Explanation of Grievance Mechanisms and Blind SD Exercise and discussion on monitoring
15:20-15:50 Q &A
15:50- 16:00 Evaluation and feedback session

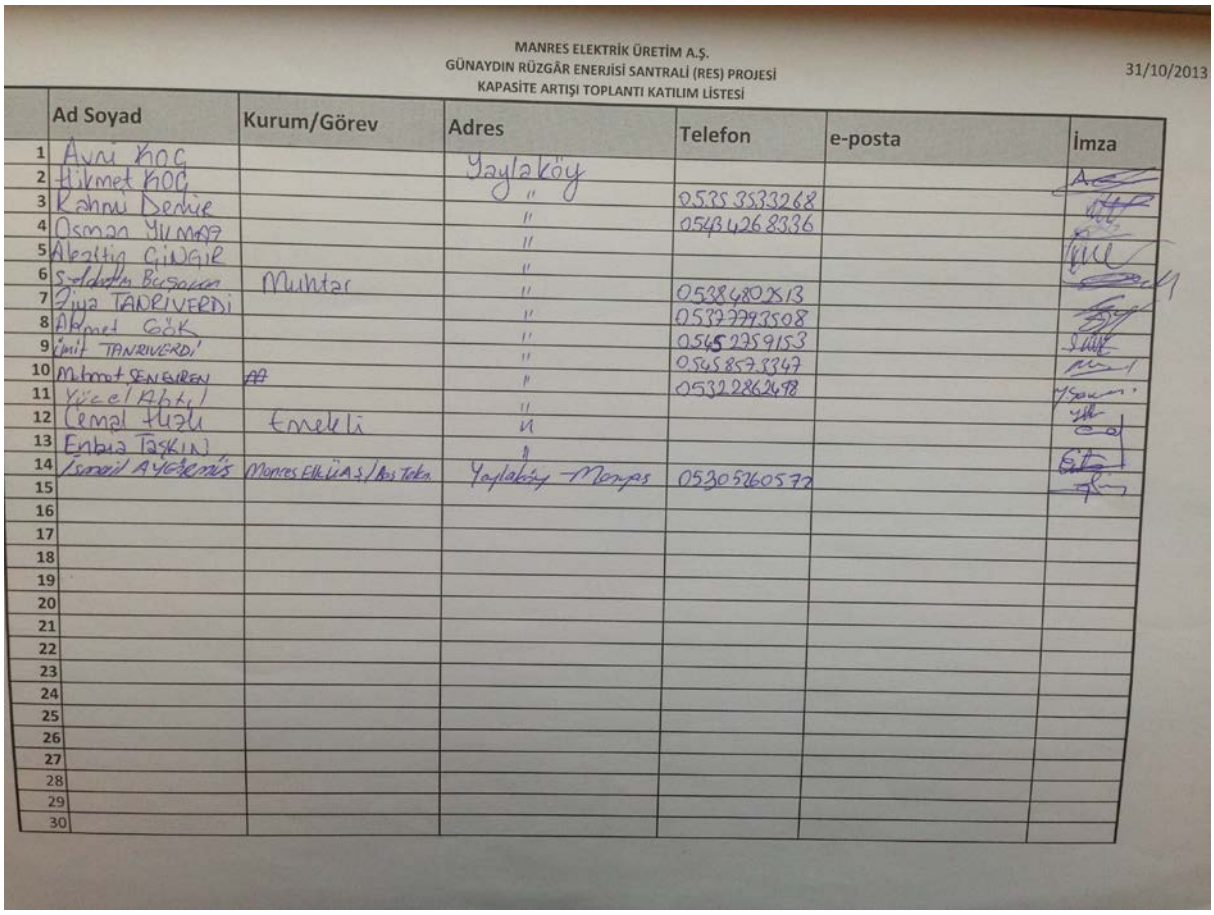
Closure

As no females attended the meeting, we gathered together with females in the village mosque right after the regular meeting.

For the extension activities a second meeting was held in Yaylaköy meeting hall on 31/10/2013 and the following agenda was followed:

11:00 – 11:05 Opening and Brief Introduction
11:05 – 11:20 Introduction of the Extension Project
11:20 - 11:30 Explanation of Certification Process
11:30 – 11:45 Question and Answer Session
11:45 – 12:00 Explanation of Continuous Grievance Mechanism and Closure.

It has been understood that the locals were quite aware of the project activities and they were well informed about the meeting. Villagers collected the comments and requests from the people who were not able to attend the meeting. An elder spokesman was chosen to describe their expectations from the project. Below is a list of participants and their contact details.



MANRES ELEKTRİK ÜRETİM A.Ş.
GÜNAYDIN RÜZGÂR ENERJİSİ SANTRALİ (RES) PROJESİ
KAPASİTE ARTIŞI TOPLANTI KATILIM LİSTESİ

31/10/2013

	Ad Soyad	Kurum/Görev	Adres	Telefon	e-posta	İmza
1	Avni KOÇ		Yaylaköy			
2	Hikmet KOÇ		"	0535 3533268		
3	Kahrı Derkie		"	0543 426 8336		
4	Osman YILMAZ		"			
5	Akıllıg GÜNGÖR		"			
6	Selahattin Büşoğlu	Muhtar	"	0538 480 2513		
7	Ziya TANRIVERDİ		"	0532 779 3508		
8	Ahmet GÖK		"	0545 275 9153		
9	Emit TANRIVERDİ		"	0545 857 3347		
10	Mehmet SENEVİREN	AA	"	0532 286 2498		
11	Yücel Abtal		"			
12	Cemal Tuzlu	Emekli	"			
13	Enbiya Taşkın		"			
14	İsmail Aydemiş	Manres Elk. A.Ş./Ass. Tekn.	Yaylaköy - Manres	0530 526 0577		
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Figure 4: Extension LSC Meeting Participant List

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Stakeholder comment	Was comment taken into account (Yes/ No)?	Explanation (Why? How?)
Is there any chance to make alternative routes for the transmission lines?	Yes	The concern was about high voltage lines but it has been explained that transmission line is not high voltage and only impact will be on pole basements. The most feasible transmission line route has been planned according to optimized studies by the experts and engineers but the alternative routes according to locals will still under consideration however the route should be decided by TEIAS.
How the present forest will be affected from the construction activities?	Yes	The planned construction activities are road construction and turbine basements which are not on forest area. Only impact can be on pole locations and access road(if necessary). Route for road construction path has not been decided yet. Impact will be minimized and routes and pole location will be selected accordingly. If road passes through the forest area, then the reforesting costs will be paid in order to compensate the new foresting activities.
Is there going to be any expropriation due to the project?	Yes	There is going to be expropriation. Project is mainly planned to be located on treasury land. EMRA is responsible about

		expropriation. The project owner has no right about the organization of resettlements.
What are the minimum qualifications required be hired as a security guard for the plant?	Yes	At least, needs to be graduated from middle school and have certificate.
Is there going to be any fences around the project area?	Yes	According to the safety requirements, particular pole points will be fenced, but other than that all area will not be covered with fences.
Is there going to be any noise problem due to the turbines?	Yes	The technology which will be deployed by the project is very new which minimizes the noise.
Ext. Comment 1: Operating noise of T2 can sometimes be heard in the village therefore we would like the extensions to be placed further away. Besides the proposed point for turbine EX2 is very close to the cemetery which is sacred for us.	Yes	Even though the noise level estimations have been performed and legal limits were applied, considering the complaints of the locals, position of the turbine EX2 has been changed.
Ext. Comment 2: Transmission line could have been built on a shorter distance requiring less construction. What was the reason of choice?	Yes	Construction of ETLs falls within the responsibilities of TEIAS (National Energy Transmission Company) and project owners have no right to choose alternatives.
Ext. Comment 3: Most of the people in the village are economically struggling. We would like Fina Enerji to pay electricity bills for the whole village.	Yes	This is against company ethics and financial management. Instead the project owners will give their best effort to help the village with construction works and renovations.
Ext Comment 4:	Yes	Fina Enerji cannot develop

There are being water shortages during summer within the village. We are expecting some help on this issue.		such projects but the top management will consider supporting concrete projects for the local welfare.
Ext Comment 5: Extension turbines shouldn't be very close and construction site must be limited	Yes	Positions of the turbines are altered and the project will use the same site as before.
Ext Comment 6: We would like our roads to be improved.	Yes	Such projects are within the responsibility of the municipality but since we are sharing the same routes company will try to look for options to improve roads.

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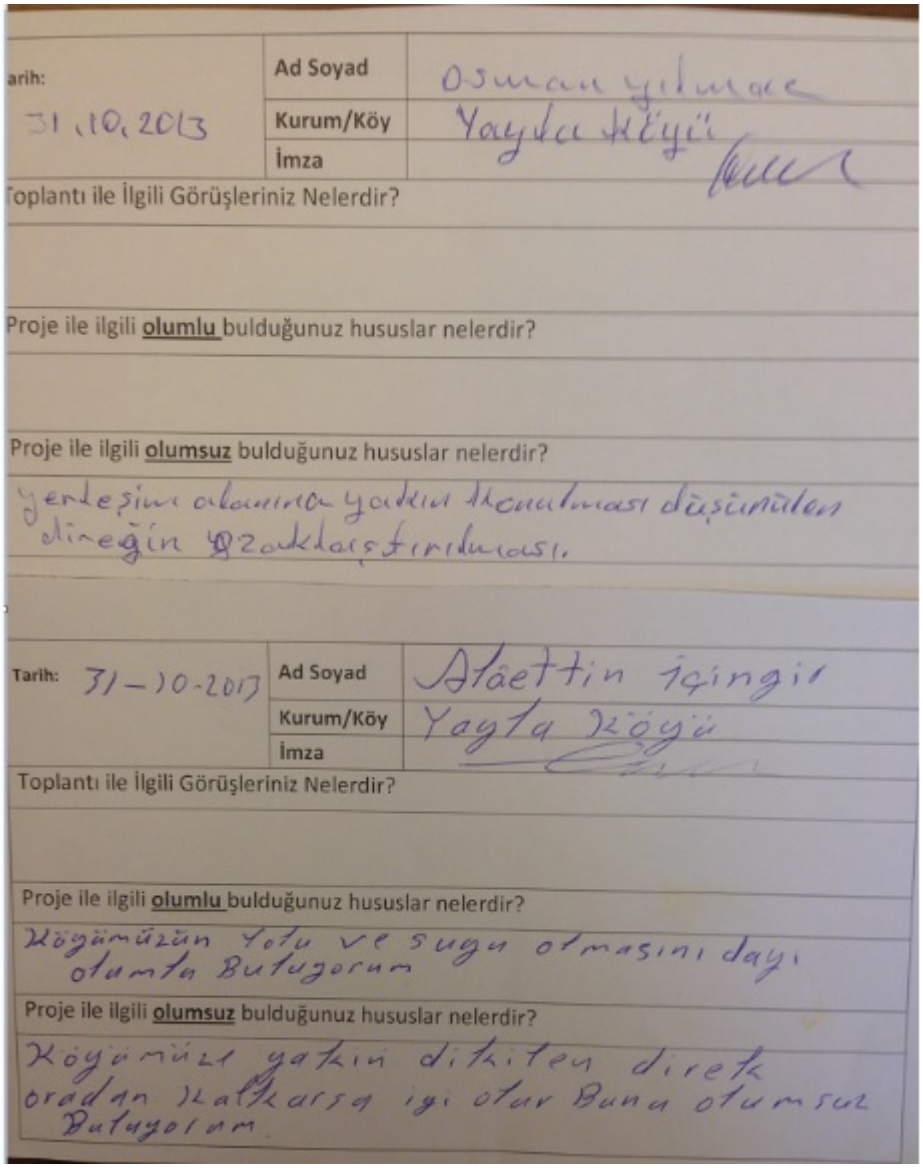


Tarih: 31.10.2013	Ad Soyad	Osman yilmaz
	Kurum/Köy	Yaylacı köyü
	İmza	

Toplantı ile İlgili Görüşleriniz Nelerdir?

Proje ile ilgili olumlu bulduğunuz hususlar nelerdir?

Proje ile ilgili olumsuz bulduğunuz hususlar nelerdir?

yerleşim alanımızın yakın tehlikesi düşünülen dinegin yozaklaştırılması.

Tarih: 31-10-2013	Ad Soyad	Alâettin içingir
	Kurum/Köy	Yayla Köyü
	İmza	

Toplantı ile İlgili Görüşleriniz Nelerdir?

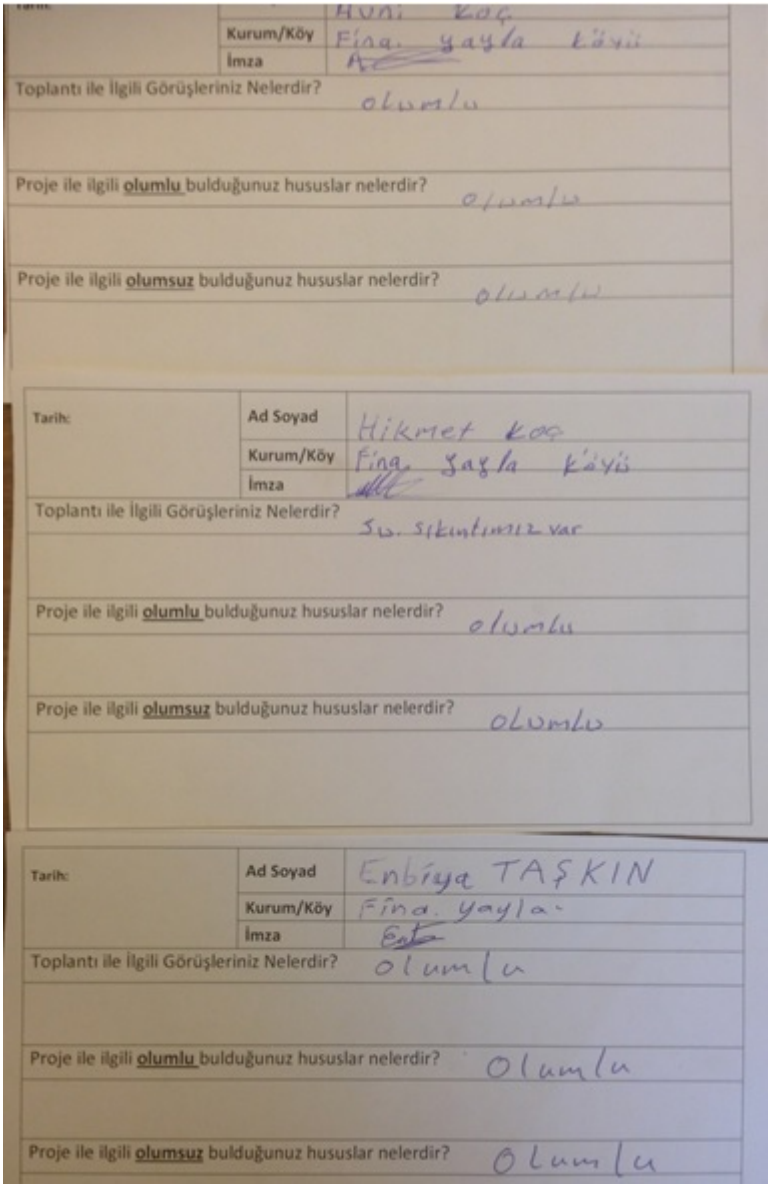
Proje ile ilgili olumlu bulduğunuz hususlar nelerdir?

Köyümüzün yolu ve suyu olmasını dayı olumlu Bulıyorum

Proje ile ilgili olumsuz bulduğunuz hususlar nelerdir?

Köyümüzü yakın dikiten direk oradan kalkarsa iyi olur Buna olumsuz Bulıyorum

Figure 5: Original Feedback Forms



	Kurum/Köy	Fina. yayla köyü
	İmza	
Toplantı ile İlgili Görüşleriniz Nelerdir?		olumlu
Proje ile ilgili olumlu bulduğunuz hususlar nelerdir?		olumlu
Proje ile ilgili olumsuz bulduğunuz hususlar nelerdir?		olumlu

Tarih:	Ad Soyad	Hikmet koç
	Kurum/Köy	Fina. yayla köyü
	İmza	
Toplantı ile İlgili Görüşleriniz Nelerdir?		Su. sıkıntımız var
Proje ile ilgili olumlu bulduğunuz hususlar nelerdir?		olumlu
Proje ile ilgili olumsuz bulduğunuz hususlar nelerdir?		olumlu

Tarih:	Ad Soyad	Enbiya TAŞKIN
	Kurum/Köy	Fina. yayla
	İmza	
Toplantı ile İlgili Görüşleriniz Nelerdir?		olumlu
Proje ile ilgili olumlu bulduğunuz hususlar nelerdir?		Olumlu
Proje ile ilgili olumsuz bulduğunuz hususlar nelerdir?		Olumlu

Figure 6: Original Feedback Forms

E.2. Stakeholder Feedback Round

During the local stakeholder meeting, the participants have been informed about the feedback round and its importance to follow up their concerns. Since, no significant concern has appeared during LSC meeting SFR is not planned as a live meeting.

In order to prepare for the feedback round, a summary of the consultation report prepared in Turkish sent to the identified stakeholders and participants through mail or village

heads. International offices of Helio International, Mercy Corps and local representative of GS also included in the feedback round via email sent on 25/09/2012.

Soft copies of the project documents made available on the web site of GTE (www.gte.uk.com). Hard copies of the LSC Report and/or Passport were available during the 2-month long feedback round for those who do not have internet access through village heads. SFR has started on 25/09/2012 and ended on 31/12/2012. No comment has been received during SFR from locals regarding the project.

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
Human Rights			
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.	Project activities are not expected to cause any human rights abuse. Turkey has ratified European Convention on Human Rights in 10/03/1954[4].	Low	No mitigation measure is required for this indicator. Capacity addition of the project does not effect this SP.
2 The Project does not involve and is not complicit in involuntary resettlement.	For the project resettlement is not required. Expropriation will be needed for T2 turbine erection and for the transmission line poles. In case of expropriation, payments will be made to land owners[5]	Low	Compensation payments will be made if expropriation is still necessary in final layout of the turbines and for the transmission line poles. Capacity addition is carried out on the same site. Privately owned lands that

[4] http://www.istanbul.gov.tr/?pid=9218 (Accessed on 15/11/2011)

[5] Gunaydın WF ESIA Report page 43,44

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
			are situated within Günaydın WF Extension Project site will be expropriated in accordance with Turkish Expropriation Law No. 2942 [6] [7]
3 The Project does not involve and is not complicity in the alteration, damage or removal of any critical cultural heritage.	No protected site or critical heritage is identified in the project site[8]. There are no archeological or historical sources within the proposed project site.[9]	Low	There are no cultural sites within the extension project boundaries.[10] Turbine positions have been altered taking into account the nearby cemetery. One of the turbines which was planned to be constructed approximately 200m away from the village cemetery has now been moved about 1km further on villagers' demand.[11]
Labour Standards			
4 The Project respects the employees' freedom of association and their right to	Turkey has ratified ILO 87 and 98 conventions .All	Low	No mitigation measure is required for this

[6] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 4.3

[7] http://ifcext.ifc.org/ifcext/spiwebsite1.nsf/0/2c048b972359e8a4852576ba000e2534/$FILE/Part%20D%20%20Turkey%20RAP%20Ann.%20Annex%203.1.pdf

[8] Gunaydın WF ESIA Report page 82-87

[9] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project , Section 5.9

[10] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project , Section 4.11

[11] Figure 3 – Final Turbine Positions

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
collective bargaining and is not complicit in restrictions of these freedoms and rights	staff recruited are employed according to the national legislations.[12]		indicator. Capacity addition project does not effect this SP.
5 The Project does not involve and is not complicit in any form of forced or compulsory labour. The project provides workers with a safe and healthy work environment.	Turkey has ratified ILO convention 29 and 105 on forced and compulsory labour.	Low	For positions, requiring specific skills staff has been trained or certified staff will be recruited. Company will comply with previous commitments and employment standards for the capacity addition project.
6 The Project does not employ and is not complicit in any form of child labour.	Turkey is a party of IPEC([13,14]* since 1992 and ratified ILO convention 138 and 182.	Low	No mitigation measure is required for this indicator. Capacity addition project does not effect this SP.
7 The Project does not involve and is not complicit in any form of discrimination based on gender,	Turkey has ratified ILO convention 100 and 111 and discrimination based on gender is illegal in Turkey.	Low	No mitigation measure is required for this indicator. Capacity addition project does not effect this SP.
8 The Project provides workers with a safe and healthy work environment and is not complicit in exposing workers to unsafe or unhealthy work	Work Safety &Risk of accidents. Turkey has ratified ILO convention 155 about work safety	Low	Staff has been trained for positions created during construction and

[12] http://www.ilo.org/public/turkish/region/eurpro/ankara/about/sozlesmeler.htm

[13] http://www.ilo.org/ipec/programme/lang--en/index.htm

[14] http://www.ilo.org/ipec/Regionsandcountries/lang--en/index.htm

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
environments	and precautions.		operation phases. Trainings are listed below: For Construction period •General Health and Safety •Emergency action plan •General work safety and legal responsibility / health and safety signs/danger and risks in working area •Work safety for lifting equipment For operation period •Climbing wind turbine •. Basic trainings for the erection of the wind turbine •ISO 9000:2008 Quality Management System •. ISO 14001 Environment Management System and OHSAS 18001 Health and Safety Management System •Analyzing and Assessment of Risk •. WPP Rescue Training •First aid

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
			•Training of working aloft •Defensive driving •Fire extinguishing Necessary Health and Safety equipment will be distributed to the staff.[15] Previously announced trainings will be followed as per the company training schedules. Briefings will be provided on cultural awareness and road safety.[16]
Environmental Protection			
9 The Project takes a precautionary approach in regard to environmental challenges and is not complicity in practices contrary to the precautionary principle. This principle can be defined 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."	Project does not produce any hazardous waste or involve plantation and host country has its own legislation. Waste oil from equipment will be disposed in line with regulation # 25791 on control of waste oils [17]	Low	Waste oil will be collected properly in line with the relevant regulation and disposed via accredited abatement companies. Aggregates from transmission line poles will be used as filling material and covering the basements of the poles so no excess material is obtained and land is covered with vegetative soil.

[15] Project Introductory Document(PID) page 21

[16] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 6.1

[17] http://www.ormansu.gov.tr/COB/mevzuatBaslik.aspx?sflang=tr

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
			Blasting is not applied. Dust emission was not significant since the source of dust was very minor. In order to mitigate environmental impacts extension works will be carried out in line with the national regulations. Directives of Regulation on General Principles of Waste Management[18] Solid Waste Control Regulation[19] , Hazardous Wastes Control Regulation[20],Waste Oil Control Regulation[21] and Medical Wastes Control Regulation[22] will be fully complied.[23]
10 The Project does not	Land use will be	Low	Company will comply with all

[18] Official Gazette No:26927 , dated June 5,2008.

[19] Official Gazette No: 20814 , dated March 14 ,1991 (Amended in Official Gazette No.27533)

[20] Official Gazette No: 25755, dated March 15, 2005 (Amended in Official Gazette No. 27537)

[21] Official Gazette No: 26952 , dated June 30,2008 (Amended in Official Gazette 27744)

[22] Official Gazette NO: 25883 , dated December 3, 2011

[23] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Sections 2.1.6 – 2.1.7 – 2.1.8 – 2.1.9 – 2.1.10

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
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) recognized as protected by traditional local communities	limited to access road, facility building and turbine basements. Turkey is party to the Bern Convention. In order to protect impact on local species, a monitoring plan will be developed for the threatened species observed in the region.[24]		national regulations and international requirements. The project is located close to the bird migration route. A bird monitoring plan will be developed for bird migration and mitigation measures will be issued for the assessment of bird migration routes for both construction and operational phases of project and also preventing damage to bird species if necessary. During the capacity addition, fauna and flora of the project vicinity have been re-assessed in the EIA Report. No critically threatened species were observed.[25] There are no national parks, nature reserves, natural monuments, wildlife protection/improvement areas, special hunting areas within the Project

[24] PID page44

[25] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 4.8

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
			site and its close vicinity[26]
11 Anti-Corruption	Turkey has ratified several conventions on bribery and corruption including OECD and UN conventions[27].	Low	No mitigation measure is required for this indicator. Capacity extension project will not effect this SP.

F.2. Sustainable Development matrix

Indicator	Mitigation measure	Relevance to achieving MDG	Chosen parameter and explanation	Preliminary score
Air quality	No mitigation measure needed for NO_x and SO_x. Construction will be limited to basements and road construction. Dust emission calculations have been made in ESIA report. Based on calculations, dust emissions do not exceed 1 kg/hr which is stated Turkish Industrial	MDG Goal 7A: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources Indicator 7.3: CO_2 emissions, total, per capita and per $1 GDP (PPP)	**Parameter:** SO_2 and NOx emission **Baseline** SO_2 and NOx emissions due to combustion of fossil fuel for electricity generation.	+

[26] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 4.10

[27] http://www.masak.gov.tr/en/LaunderingProceedsofCrime/Chronology.htm

	Air Pollution Regulations[28]. To minimize dust problem, construction site is irrigated regularly to avoid dust and trucks will be covered, selection of equipment and loading & unloading will be made carefully and speed limits will be obeyed.(ESIA section 8) Moreover, paving has been made to minimize dust formation. Previously applied measures will be repeated for the capacity extension activities[29]			
Water quality and quantity	Project will not have any impact on water quality and quantity. The project will contribute in the protection of the surface and ground water. [30]	-	**Parameter:** Disposal of the waste water **Baseline** No domestic waste water generation in the baseline scenario. Currently, there is no municipal	0

[28] Gunaydın WF ESIA Report, page 106

[29] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 5.2

[30] Gunaydın WF ESIA, page 8

	During the capacity extension, accumulated waste water will be collected by vacuum trucks and precautions will be implemented to prevent impacts on groundwater. The project will comply with the Turkish Water Pollution Control Regulations[31]		sewer system in the vicinity of the project area[32]Waste water will be collected within the tank and will be transferred to the city municipal sewer system by municipality trucks	
Soil condition	No mitigation measure is needed as all solid waste will be handled according to the national legislations. Geophysical and geological exploration report has been prepared by ITU, and turbines are not constructed in the area having risk of dislocation and subsidence. Extension activities are not expected to cause any impacts on the soil condition. Previous	-	**Parameter:** Amount of non-hazardous solid wastes during construction and operational phases. Appropriate management of all waste in line with regulations. **Baseline** No aggregate production Recyclable and non-recyclable wastes will be stored temporarily and will be disposed by the Manyas Municipality[34] All excavation soils have been	0

[31] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 5.3

[32] Gunaydın WF ESIA, page 108

	precautions will be applied accordingly [33]		used for road construction, turbine platform area, cable channel, foundation backfill	
Other pollutants	No mitigation measure is needed for noise. Noise measurements have been made at the nearest location and determined as below the limits. The project is not expected to cause noise problem. Related studies have been done for day and night time.[35] Waste oil and solid waste will be handled according to the national legislation dated 19.04.2005 and numbered 79125. During the capacity addition shadow flicker effect and blade glint effect are taken into account with using a	-	**Parameter:** No noise problem occurs. **Baseline** Noise or other pollutant source does not exist.	0

[34] Gunaydın WF ESIA, page 111

[33] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 5.7

[35] Gunaydın WF ESIA page 51

	computerized modelling[36]. Noise levels associated with the extension activities are assessed taking into account the construction, operation and decommissioning phases.[37] Since the Turkish Ministry of Environment does not provide any methodology for noise assessment, a methodology (ETSU-R-97) developed by Working Group on Noise from Wind Farms has been adopted.[38] Nearest residence was selected according to its distance to the closest turbine. (222meters).[39] The noise assessment study has demonstrated that the operational noise of Günaydın Wind Farm will not exceed the			

[36] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 5.11

[37] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 5.1

[38] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 5.1.2.1

[39] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 4.4.1

	Turkish noise regulation.[40]			
Biodiversity	Currently the area on the migration route of birds. During the migration period monitoring studies will be done by 'Doğa Araştırmaları Derneği' . [41]	-	**Parameter:** Number of bird species and affected species **Baseline** Natural flora&fauna of the region.	0
Quality of employment	No mitigation measure is needed. Staff will be trained positions created during construction& operation phases. Trainings are listed below: For Construction period • General Health and Safety • Emergency action plan • General work safety and legal responsibility / health and safety signs/danger and risks in working area • Work safety for lifting equipment For operation	MDG Target 1.A: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day MDG Target 1.B: Achieve full and productive employment and decent work for all, including women and young people	**Parameter:** Number of certificates issued/trainings provided. **Baseline** No certificate exists	0

[40] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section Table 5-7.

[41] Gunaydın WF ESIA 116

	period • ISO 9000:2008 Quality Management System • ISO 14001 Environment Management System and OHSAS 18001 Health and Safety Management System • Analyzing and Assessment of Risk • First aid • Defensive driving • Fire extinguishing All Health and Safety measurements will be applied according to local regulations. Flora and Fauna have been assessed for the modified design and no threats have been identified.[42]			
Livelihood of the poor	No mitigation action is required	MDG Target 1.A: Halve, between 1990 and 2015, the proportion of people whose	**Parameter:** Change in living standards of locals **Baseline**	0

[42] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 4.7 – 4.8

		income is less than one dollar a day and 1.B :Achieve full and productive employment and decent work for all, including women and young people) , 1.4 (1.4 Growth rate of GDP per person employed)	Project is in a relatively developed region in terms of access to basic services.	
Access to affordable and clean energy services	No mitigation action is required for this indicator.	-	**Parameter:** Fossil fuel replaced **Baseline** Coal and wood consumption to generate heat. Fossil fuel dominated electricity grid. Project will decrease dependency on import fossil fuels (natural gas, coal and petroleum) compared to baseline scenario	+
Human and institutional capacity	No mitigation measure is required for this parameter.	-	**Parameter:** Change in education & skills **Baseline:** Empowerment, education and skills in the absence of project activity.	0

Quantitative employment and income generation	Mitigation measure is not required for this indicator.	MDG target 1.B: Achieve full and productive employment and decent work for all, including women and young people. Indicators: 1.4. Growth rate of GDP per person employed 1.5 Employment-to-population ratio 1.6 Proportion of employed people living below $1 (PPP) per day 1.7 Proportion of own-account and contributing family workers in total employment	**Parameter:** Payment made to staff **Baseline** No job opportunities currently at the project site. Project will create new job opportunities compared to baseline scenario. Job opportunities will involve skilled and unskilled positions.**Hata! Yer işareti tanımlanmamış.**	+
Balance of payments and investment	Mitigation measure is not required for this indicator.	1 MDG Target 8.D (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:** Currency saving due to avoided fuel import. **Baseline** Fossil fuel import and trade deficit. Project will replace fossil fuel import for heat generation and result in net foreign currency	+

			saving.	
Technology transfer and technological self-reliance	Mitigation measure is not required for this indicator.	MDG target 8.F: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications.	**Parameter:** Expenditure for the equipment **Baseline** There is no baseline scenario Project will contribute in technology transfer to Turkey from Germany and have limited impact on development of local suppliers and know-how in the country.[Hata! Yer işareti tanımlanmamış.]	0

Justification choices, data source and provision of references	
Air quality	There will be no significant construction activities as the Project is a non-combustion process that relies on the direct conversion of mechanical energy into electrical energy. Thus during operation, fossil fuels will not be used for power generation and air emissions will not be generated. Dust emission calculations have been made in ESIA report. Based on calculations, dust emissions do not exceed 1 kg/hr which is stated Turkish Industrial Air Pollution Regulations[43]. In order to prevent the dust generation, roads has been sprinkled with water regularly (Figure 2), loads on the hauling vehicles will be covered with tarpaulin type material while in transport. Project will prevent implementation of thermal power plants in baseline scenario and thus reduce SO2 and NOx emissions[44]

[43] Gunaydın WF ESIA Report, page 106

[44] Gunaydın WF ESIA page 106

	 Figure 2. Prevention of dust formation During the construction and operation of the capacity addition activities, previous precautions will be applied. Another assessment has been prepared to evaluate dust emissions[45] and the emissions were proved to be below national regulation limits. On the other hand once the turbines are operational generated clean energy will help to reduce SO2 and NOx emissions further down.
Water quality and quantity	There will not be any significant activities on ambient water sources during the operational and contraction phases of project. Also IFC wastewater and ambient water quality guidelines are applicable to the project. The guideline states that if sewage from the industrial facility is to be discharged to a septic system, treatment to meet applicable national or local standards for sanitary wastewater discharges is required. The wastewater from the septic tank will be transported to a treatment plant where it will be treated to meet the standards in according with guidelines and national regulations.[46] During the capacity extension, accumulated waste water will be collected by vacuum trucks and precautions will be implemented to prevent impacts on groundwater. The project will comply with the Turkish Water Pollution Control Regulations [47] It is not expected that groundwater will be encountered during the excavations due to the limited depth of necessary foundation works. Surface water run-off is also not considered to be an issue.

[45] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 5.2

[46] Project Introductory Document(PID) page 19

[47] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 5.3

Soil condition	Project will have no impact on erosion. Construction activities will be carried out in accordance with ESCP [48] During the construction activities excavated soil will be stored in excavated soil storage area, in such a way vegetable soil is in upper side, in order to be reused for filling of turbine foundation and landscaping purposes. Extension activities are not expected to cause any impacts on the soil condition. Previous precautions will be applied accordingly [49] In case of any spills or leakages of pollutant material into the ground, the contaminated are will be cleaned up as soon as possible. Sands which cannot be cleaned will be bagged up and disposed appropriately. Spill kits, absorbent pads and absorbent sands will be available at site for all times.
Other pollutants	Noise assessment studies have been done for the constructional and operational phases of the project. Also studies have demonstrated that the operational noise of Gunaydın Wind Farm will not exceed the Turkish noise regulation and IFC/WB daytime and nighttime noise limits. Thus, during the operation of the wind turbines, the likelihood and magnitude of the potential noise impact will be unlikely and negligible, respectively. Thus, the significance of the potential noise impact associated with the proposed wind farm is expected to be negligible according to optimized studies. [50] Noise levels associated with the extension activities are assessed taking into account the construction, operation and decommissioning phases.[51] Since the Turkish Ministry of Environment does not provide any methodology for noise assessment, a methodology (ETSU-R-97) developed by Working Group on Noise from Wind Farms has been adopted.[52] Nearest residence which has been the reference point for noise assessment, was selected according to its distance to the closest turbine. (222meters).[53] The noise assessment study has demonstrated that the operational noise of Günaydın Wind Farm will not exceed the Turkish noise regulation.[54] During the operational and constructional phases of the project main hazardous waste will be the waste oil. Waste oil collection and

[48] Project Introductory Document(PID) page 142

[49] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 5.7

[50] Gunaydın WF ESIA) page 100

[51] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 5.1

[52] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 5.1.2.1

[53] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 4.4.1

[54] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Table 5-7.

	disposition will be done in compliance with relevant regulations dated 30.07.2008 and numbered 26952 and also according to the IFC/WB Guidelines. [55] Other than first aid kits, there will not be any generation of medical waste on the site since Manyas Health Center will be used for medical care.[56] During the capacity addition shadow flicker effect and blade glint effect are taken into account as well as noise assessments with using a computerized modelling[57]
Biodiversity	Since the proposed project includes only five turbines, it is not expected to create significant impacts on the local biological resources and wildlife in the project site. Indirect but not significant habitat loss as a result of increased human presence, noise or the movement of the operating turbines is anticipated. For all these cases related studies have been done and show that there aren't any adverse effects on biodiversity of project site.[58] In order to minimize impact, coloring of turbines and blades will be made carefully and low intensity lights will be used. Impact on birds will be monitored by an NGO (Nature Research Center) and further actions will be implemented upon their recommendations if necessary.(ESIA section 8) Project extension will be performed within the same project site. Still the Flora and Fauna have been re-assessed for the modified design and no threats have been identified.[59]
Quality of employment	Operational staff will be trained in compliance with their assignments and regulation on H&S of labor. Staff employed during construction has been trained. Staff who will work during operation has not been recruited yet. Trainings will be renewed for those staff also. Necessary health and safety equipment will be distributed to employees during the constructional and operational phases of the project.[15] No change is expected due to the capacity change for this parameter.
Livelihood of the poor	Project will indirectly have impact on locals' living conditions due to supply of materials by local firms, recruitment of locals and by the maintenance on the roads due to the contraction phase. No change is

[55] Gunaydın WF ESIA page 110

[56] Gunaydın WF ESIA page 112

[57] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 5.11

[58] Gunaydın WF ESIA page 114

[59] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 4.7 – 4.8

	expected for this parameter due to the capacity addition.
Access to affordable and clean energy services	Turkey has a significant energy deficit which causes trade deficit due to import of natural gas and oil and the economy is very sensitive against fluctuations in oil and gas prices. Project will prevent significant NG consumption for electricity generation and contribute use of local resources for electricity generation. With the additional capacity the project will further contribute to the clean energy generation. http://www.hazine.org.tr/en/energypaper.pdf
Human and institutional capacity	Project will have indirect impact on human and institutional capacity due to trainings of staff. No change is expected for this parameter due to the capacity addition.
Quantitative employment and income generation	Project is expected to create 30 job opportunities during construction and 8 permanent opportunities during operation period. These opportunities will include both skilled and unskilled positions. Exact numbers will be determined after start of project activities. Added capacity is not expected to have any effects on this parameter.
Balance of payments and investment	More than 50% of the electricity generated in Turkey has been via import coal and natural gas (http://www.hazine.org.tr/en/energypaper.pdf figure 7). Project will contribute decrease in trade deficit and help in improvement of balance of payments. With the added capacity the project will contribute further to the balance of payments and investment.
Technology transfer and technological self-reliance	The project will contribute in technology transfer from Germany. Also wind power plants can still be considered as a developing technical area in Turkey and will have a positive impact on the development of local suppliers and know-how in the country. Extension turbines are purchased from the same supplier which helps to build more experience and better relations.

SECTION G. Sustainability Monitoring Plan

No	1
Indicator	Air Quality
Mitigation measure	Not required
Chosen parameter 1.1	SO_2 emissions from grid connected plants
Current situation of parameter	SO_2 is emitted from grid connected plants.
Estimation of baseline situation of parameter	Total SO_2 emission related to electricity generation is about 167.89 Gg in 2012 according to National Inventory

		of Turkey [60]. Considering that electricity generation in 2012 is 239,496.8 GWh[61], SO_2 emission per MWh is calculated as 0.70 kg/MWh.
Future target for parameter		SO_2 emission reduction corresponding to annual generation.
Way of monitoring	How	Electricity generated by Gunaydın WPP
	When	Yearly
	By who	Project Owner
Chosen parameter 1.2		NOx emissions from grid connected plants
Current situation of parameter		NOx is emitted from grid connected power plants.
Estimation of baseline situation of parameter		Total NO_x emission related to electricity generation is about 324.30 Gg in 2012 according to National Inventory of Turkey [62]. Considering that electricity generation in 2012 is 239,496.8 GWh[63], NO_x emission per MWh is calculated as 1.35 kg/MWh
Future target for parameter		NOx emission reduction corresponding to annual generation.
Way of monitoring	How	Electricity generated by Gunaydın WPP
	When	Yearly
	By who	Project Owner

No	2
Indicator	Quality of Employment
Mitigation measure	All recruited technical staff is trained for operation and maintenance of equipment and Health and safety measures. Also, staff working with high voltage equipment during operation phase will be certified (also required by regulations). The trainings will be renewed for new staff if necessary.
Chosen parameter	Number of personnel certified/trained during operation phase

[60] http://unfccc.int/files/national_reports/annex_i_ghg_inventories/national_inventories_submissions/application/zip/tur-2014-crf-15apr.zip Table 1s1

[61] http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2012/kgucunkullan%C4%B1m(14-22)/14.xls

[62] http://unfccc.int/files/national_reports/annex_i_ghg_inventories/national_inventories_submissions/application/zip/tur-2014-crf-15apr.zip Table 1s1

[63] http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2012/kgucunkullan%C4%B1m(14-22)/14.xls

Current situation of parameter		Personnel according to their qualifications are assigned. Trainings are being scheduled as planned.
Future target for parameter		Staff will be trained for positions created during construction & operation phases. Possible trainings are listed below: For Construction period • General Health and Safety • Emergency action plan • General work safety and legal responsibility / health and safety signs/danger and risks in working area • Work safety for lifting equipment For operation period • ISO 9000:2008 Quality Management System • ISO 14001 Environment Management System and OHSAS 18001 Health and Safety Management System • Analyzing and Assessment of Risk • First aid • Defensive driving • Fire extinguishing All Health and Safety measurements will be applied according to local regulations.
Way of monitoring	How	Through review of employment records and training documents/certificates
	When	Yearly
	By who	Project Owner

No	3
Indicator	Balance of payments and investment
Mitigation measure	Not required
Chosen parameter	Currency saving due to avoided fuel import
Current situation of parameter	Project has started generating electricity and contributing balance of payments.
Estimation of baseline situation of parameter	In 2012, about 23.09 billion m^3 natural gas been used[64] for about 104,499.2 GWh electricity generation[65] and about $ 8.247 billion has been spent.

[64] http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2012/yak%C4%B1t48-53/49.xls

[65] http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2012/uretim%20tuketim(23-47)/46.xls

Future target for parameter		Approximately consumption of 12.26 million m^3 of natural gas is expected to be avoided corresponding to $ 4.4 million annually.
Way of monitoring	How	Through comparing electricity generated by proposed project and natural gas that would be used to produce the same amount of electricity by a thermal power plant.
	When	Yearly
	By who	Project Owner

No		4
Indicator		Water Quality
Mitigation measure		Mitigation measure is not required
Chosen parameter		Disposal of the waste water
Current situation of parameter		None
Future target for parameter		Disposal of waste water as required by the relevant regulations
Way of monitoring	How	Assessing disposal methods during site visits and checking waste disposal records.
	When	Annually
	By who	Project Owner

No		5
Indicator		Biodiversity
Mitigation measure		Migration of birds
Chosen parameter		Number of bird species and affected species
Current situation of parameter		Natural flora &fauna of the region
Future target for parameter		N/A
Way of monitoring	How	Ornithology report.
	When	Once
	By who	Project Owner and Ornithologist

No	6
Indicator	Soil Condition
Mitigation measure	No mitigation measure is required
Chosen parameter	Amount of nonhazardous solid wastes during construction and operational phases. Appropriate management of all waste in line with regulations
Current situation of parameter	No aggregate production

Future target for parameter		Recyclable and non-recyclable wastes will be stored temporarily and will be disposed by the Manyas Municipality. Excavated soil will be used for landscaping
Way of monitoring	How	Site visit and checking waste disposal records.
	When	annually
	By who	Project Owner and expert

No		7
Indicator		Livelihood of the poor
Mitigation measure		Compensation for expropriation
Chosen parameter		Compensations made to locals
Current situation of parameter		None
Future target for parameter		Compensation will be made if expropriation is still necessary in the final layout of the turbines and for transmission lines
Way of monitoring	How	Interview with owner of the expropriated land
	When	Once after construction
	By who	Project Owner

No		8
Indicator		Air Quality
Mitigation measure		Road pavements and watering construction area
Chosen parameter		Measures issued to minimize dust emissions
Current situation of parameter		Construction is going on and measures are employed to minimize dust emissions
Future target for parameter		Minimize dust emissions via measures issues
Way of monitoring	How	Documentation of measures (pictures etc.)
	When	Once after construction
	By who	Project Owner

No	9
Indicator	Access to affordable and clean energy services
Mitigation measure	No mitigation action is required for this indicator.
Chosen parameter	Fossil Fuel replaced

Current situation of parameter		In 2012, about 23.09 billion m^3 natural gas been used[66] for about 104,499.2 GWh electricity generation[67]
Future target for parameter		Approximately consumption of 12.26 million m^3 of natural gas is expected to be avoided [68]
Way of monitoring	How	Through comparing electricity generated by proposed project and natural gas that would be used to produce the same amount of electricity by a thermal power plant
	When	Yearly
	By who	Project Owner

No		10
Indicator		Quantitative employment and income generation
Mitigation measure		Mitigation measure is not required
Chosen parameter		Payments made to staff
Current situation of parameter		No payment
Future target for parameter		Project will create new job opportunities compared to baseline scenario
Way of monitoring	How	Through evaluation documents for wages paid and social security documents.
	When	Yearly
	By who	Project owner

No	11
Indicator	Other pollutants
Mitigation measure	Modern wind turbine designs with low noise emissions will be preferred. All wind turbines will be located at a setback distance from any homestead and a noise criteria level at the nearest residents will be used to locate the turbines.
Chosen parameter	No noise problems occur
Current situation of parameter	Noise assessments have been carried out and noise levels are found to be below legal restrictions.[69]

[66] http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2012/yak%C4%B1t48-53/49.xls

[67] http://www.teias.gov.tr/T%C3%BCrkiyeElektrik%C4%B0statistikleri/istatistik2012/uretim%20tuketim(23-47)/46.xls

[68] BOTAS Average NG price for 2012 considered in calculations (http://www.botas.gov.tr/index.asp)

[69] Environmental and Social Impact Assessment for Günaydın Wind Farm Extension Project Section 4.4.1

Future target for parameter		Project to be operated without causing any noise disturbance.
Way of monitoring	How	By conducting surveys/interviews with the nearby residents to ensure that there are no concerns with respect to the noise from project activities.
	When	Yearly
	By who	Project owner

SECTION H. Additionality and conservativeness

H.1. Additionality

Additionality assessment is performed according to the “Tool for the demonstration and assessment of additionality” approved by UNFCCC. Details are available in PDD

H.2. Conservativeness

Conservative approach has been followed in calculating baseline emission factors and investment analysis sections as detailed in PDD.

ANNEX 1 ODA declaration

manres
elektriküretim

10/08/2012

GS1178-10 MW GUNAYDIN WPP

To: Gold Standard Foundation

Declaration of Non-Use of Official Development Assistance by Project Owner

MANRES Elektrik Üretim A.Ş.

As Project Owner of the above-referenced project, acting on behalf of all project participants, I now make the following representations:

Karani Güleç and Koray Kıymaz

Board Chairman and Board Member

I hereby declare that I am duly and fully authorised by the project owner of the above-referenced project, acting on behalf of all project participants, to make the following representations on Project Proponent's behalf:

I. Gold Standard Documentation

I am familiar with the provisions of Gold Standard Documentation relevant to Official Development Assistance (ODA). I understand that the above-referenced project is not eligible for Gold Standard registration if the project receives or benefits from Official Development Assistance under the condition that some or all credits coming out of the project are transferred to the ODA donor country. I now expressly declare that no financing provided in connection with the above-referenced project has come from or will come from ODA that has been or will be provided under the condition, whether express or implied, that any or all of the credits [CERs, ERUs or VERs] issued as a result of the project's operation will be transferred directly or indirectly to the country of origin of the ODA.

Manres Elektrik Üretim A.Ş.

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GOLD STANDARD PASSPORT

manres
elektriküretim

II. Duty to Notify Upon Discovery.

If I learn or if I am given any reason to believe at any stage of project design or implementation that ODA has been used to support the development or implementation of the project, or that an entity providing ODA to the host country may at some point in the future benefit directly or indirectly from the credits generated from the project as a condition of investment, I will make this known to the Gold Standard immediately.

III. Sanctions. I am fully aware that under Section 10 of the Gold Standard Terms and Conditions sanctions and damages may be incurred for the provision of false information related to Projects and/or Gold Standard credits.

Karani Güleç	**Koray Kıymaz**
Board Chairman	**Board Member**

On behalf of: MANRES Elektrik Üretim A.Ş.

Manres Elektrik Üretim A.Ş.

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