

CarbonNeutral Company Independent Advisory Group

Project review



Karakurt Wind Farm – Turkey

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Executive Summary

Background - at the IAG meeting of 10th May, it was agreed that two IAG members would visit a TCNC emission reduction projects and provide an independent personal testimony and qualitative project overview. This would complement the quantitative verification exercise conducted each year prior to 'delivery' of carbon credits. This report is based on a two day visit to the Karakurt Wind Farm project near Izmir in Turkey.

Additionality - the PDD and the Validation report were done using the small scale renewable CDM standard and in the case of the Validation report, by a CDM accredited DOE. The project met the CDM additionality test as at the time of financing and development, wind generation was not a common practice, generation and use were not a requirement under Turkish energy regulations and wind power was not the least cost solution. The Karakurt project was not supported by public soft funding. Renewable energy generation in general and wind projects in particular, are usually high quality VER activities, in that the reductions are easily identified and verified, and baseline information highly transparent. The project now contributes to Turkey's sustainable development and renewable energy goals, which is aligning itself with EU renewables targets. The verifier will be CDM accredited.

The operational and management structures appear sound. The project is utilising Vestas 1.8MW turbines on an extremely good site with 35% efficiency. The associated grid connection and Skada monitoring systems are also installed by Vestas who have a 2 year maintenance contract. The project was commissioned in June and was operational from July 2007. The projected annual PDD output is 36,665 MWh compared to generation are summarised below:

Parameter	Karakurt Wind Farm Operational Performance (2007-8) in MWh per month											
	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Projected in PDD	3,154	3,485	3,820	4,102	3,183	3,115	1,881	2,493	2,634	3,008	3,023	2,765
Actual monthly output	-	989	2,090	3,115	2,827	2,560						
Variance		-2,495	-1,730	-987	-356	-555						

High variance for July and August is explained by the fact the oil cooling units on the turbines were malfunctioning and needed replacing. Though this year might also be atypical, the residual variance is ~10%. If this is representative of likely output, the output projected in the PDD would not be met and the VERs will be lower than the projected 24,381. The Carbon Neutral Company (CNC) has contracted ~20,000 VERs over the 12 months from June 2007. It is probably too early to say definitively whether this will be met, but CNC should monitor the situation and its potential impact on VER offtake.

The environmental impacts on wind farms are mainly visual and noise related. Visually, while the turbines are very obvious, there was no objection locally. Noise was not considered an issue by residents of Karakurt as the prevailing wind mitigates the impact.

Capacity building and stakeholder impacts look positive, though there are limited opportunities for capacity building on a wind project like this. Akxa has employed and trained a local engineer and there is a positive working relationship with the Karakurt community, both through the new employment opportunities as well as financial and material support.

There is also an opportunity for the CarbonNeutral Company to develop a longer term closer working relationship with Akxa, and to provide capacity building support to Akxa on how they can optimise the quality of the VERs they offer.

Financially, Akxa is a well established private company which has a significant and growing presence in the conventional power sector and ambitions in the renewable sector. A risk would be their expansion plans overstretch the financial resources of the group.

Akxa are potentially an attractive long term partner for CNC and its clients.