



CDM VALIDATION AND VERIFICATION EXPERIENCE FOR SALKHIT WIND FARM PROJECT

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- Project background
- Salkhit's CDM background
- Validation experience:
PDD revision, emission factor calculation, data proof
Validation and registration
- Verification plan/ experience:
Implementation of Monitoring Plan,
DOE selection, site visit
- Issuance and post-issuance cycle

PROJECT BACKGROUND

Salkhit Wind Farm Project

Wind speed measurement started in 2004

PDD development started in 2007

Construction started in 2012

Validation Dec 2007 - Feb 2012

Commissioned in June 2013

Registration – March 2012

50 MW Salkhit WFP became:

- First wind farm connected to the central grid
- First independent power producer
- First power purchase agreement
- First privately-owned power plant in renewable energy sector
- First and largest new power plant commissioned in the last 30 years
- 3rd largest power plant by installed capacity
- First large scale CDM project registered from Mongolia
- First project to receive International Project Finance Award as the Best Deal of 2012 in renewables in the Asia-Pacific region

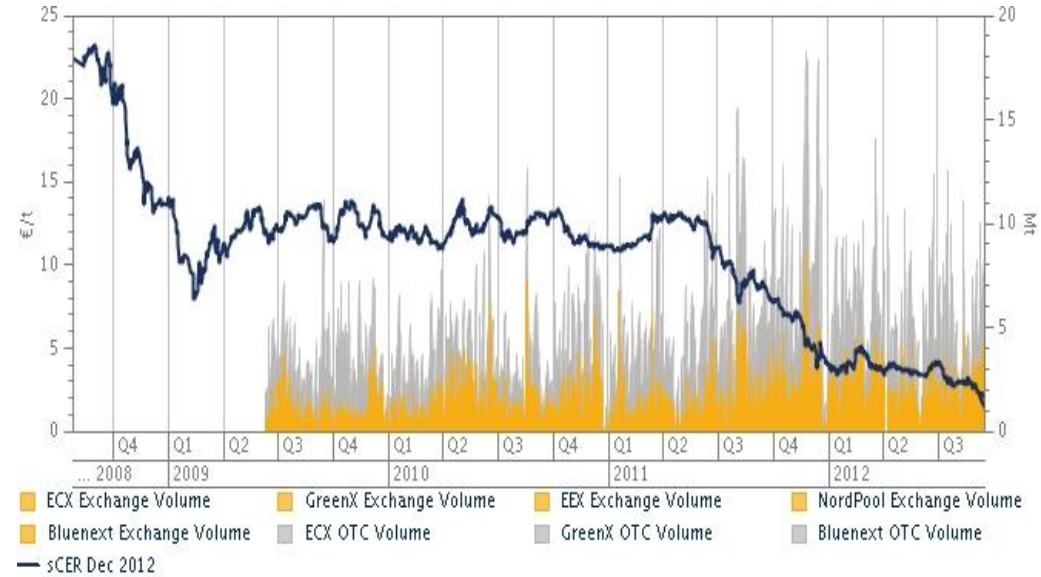
Location: Sergelen Soum, Tuv aimag, 70 km from UB

... in Mongolia

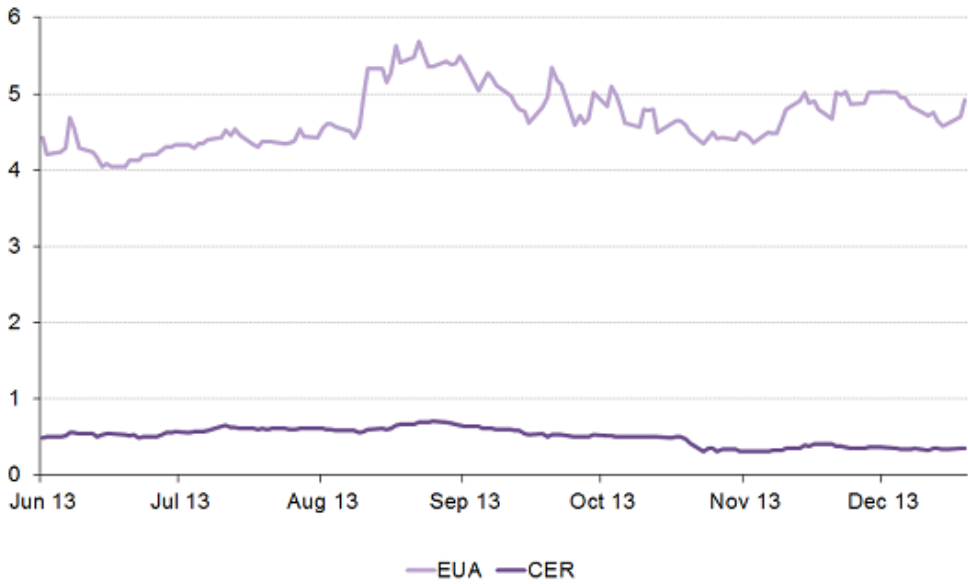
31 GE wind turbine generators

SALKHIT'S CDM BACKGROUND

Capacity	49.6 MW wind project
Annual electricity generation	168.5 GWh
Expected annual CER	178,778 tCO2e
Crediting period	21 years
Total project investment	US\$ 120 million



Source: Point Carbon
sCER OTC price assessment (as of Sep 2012)



As of 21-Dec 2012, benchmark prices are for Dec-2013 contracts
Source: Bloomberg New Energy Finance

Source: BNEF (2014.1.15)

CER sales price examples	CDM annual return	Total CDM Return (gross)
€20 fixed	€3.5 mln/y	€75 mln
€1 fixed	€178,778	€3.7 mln
~ 90 % floating price of sCER market price		

PDD development

Key factors of PDD:

Methodology: ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" version 12.1.0

- Emission Factor Calculation (ex-post vs. ex-ante):
 - Carbon content of lignite
(int'l default value vs. local estimates)
 - NCV (net calorific value) or heat content of coal
- Baseline Emission (data gathering, evidence to sources used)
- Monitoring plan (clear roles and responsibilities, file records)
<http://www.cdmrulebook.org/116>
- Develop PDD not only following PDD guidelines, but also validation guidelines (VVM – validation & verification manual etc).
- Be as clear & specific
- Keep records/evidence of all data used
- Track all guidelines & requirements of the methodology & tool

Project needs to be in advanced stage to complete validation:

DOE required:

- evidence that the project will be implemented (financial close or EPC contract):
 - a. complete details on the technology to be adopted (its origin and environmental soundness, purchase order/contract)
 - b. justification for the wind turbine generation (net electricity generation, capacity factor)
- proof of the starting date of the project activity
- proof of all sources and data used (cross-reference) to justify CER/EF calculation

VERIFICATION PLAN

- Finalize monitoring report by Jan 2014
- Select DOE by Feb
- DOE to make MR publicly available to receive public comments during 30 days (14 days prior to the site visit for verification)
- Revise MR if/as necessary in March
- Start verification in 2Q
- Obtain issuance by 3Q

Type	Verification	V	Code	Date
Standard	CDM Validation & Verification Standard (DOE)	3	EB65 A04	2012.12.23
Manual	Validation & Verification Manual (DOE)	1.2	EB55 Anx1	2010.7.30
Guideline	Guideline on the Application of Materiality in Verifications	1	EB69 A6	2012.9.13
Procedure	Procedures relating to VR & CR/Request for Issuance of CERs (DOE)	1.1	none	2006.12.20

MONITORING

Type	Monitoring	V	Code	Date
Meth	Monitoring methodology: ACM 0002	12.1	EB58, A7	2010.11.26
Guideline	Guidelines for completing the monitoring report form	4	EB54, A34	2013.10.4
Guideline	Guidelines for assessing compliance with the calibration frequency requirements	1	EB52 Anx60	2010.2.12
Procedure	Procedures for revising monitoring plans (DOE)	2	EB49 Anx28	2009.9.11
Procedure	Procedures for making the monitoring report available to the public (DOE)	1	n/a	2005.4.7

Type	General	V	Code	Date
Procedure	CDM Project Cycle Procedure	3.1	EB65 A32	2012.12.3
Standard	CDM Project Standard	5	EB65 A05	2013.10.4
Guidance	Methodological issues		EB22 A2	
	Glossary	7	EB07 A04	

Type	Issuance	V	Code	Date
Procedure	Procedures for requests for issuance of CERs	1.2	EB54 Anx35	
Guidance	Guidance on a request for issuance of CERs		EB60 Rep, para101	
Procedure	Procedures for requests for deviation prior to submitting request for issuance	1	EB49 Anx26	2009.9.11
Procedure	Procedures for review of requests for issuance	2	EB64 Anx4	
Guideline	Guidelines for requesting a review and making decisions and objections regarding review assessments	2	EB59 Anx14	
Procedure	Procedures for withdrawal of a request for issuance of CERs		EB54 Anx33	

	Distribution of CERs		
	Holding account authorized by:		
	non-Annex I party (CDM Registry)		
	Annex I party (National Registry)		
	Partial distribution of CERs in a single transaction is allowed		EB21 Rep, para70
	Transfer of CERs		
	Ok to transfer CERs from Non-Annex I HA to accounts in National Registry		CP/2004/2/, p15 para58
	Renewal of crediting period		
Procedure	Procedures for renewal of the crediting period of a registered CDM project activity	6	EB63 Anx29
F-CDM-REN	Renewal of the crediting period of a registered CDM project activity		

THANK YOU FOR ATTENTION

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