

CLEARED BY:

UNDP Deputy Resident Representative

Date

Ekaterina Paniklova

19 FEB



MNP Belarus

CLEARED BY:

Deputy Minister of Natural Resources and Environmental Protection of the Republic of Belarus

Date

S.S. Khrushchev



Annual Work Plan

Project title: Removing Barriers to Wind Power Development in Belarus
Project number: 00087557
Year: 2016
Goals for the year:
 1) Develop new/ improved technical norms and standards
 2) Develop and implement an awareness-raising program for decision makers
 3) Engage specialized local engineering in designing the wind power farms under the project
 4) Provide complete support to potential wind power site developments
 5) Provide for communication of the de-risking aspects of the project to stakeholders

Activity	Description	Unit of measurement	Quantity	Unit cost	Activities by quarters				Implementing partner	Fund	Donor	Account	Account description	Planned financial resources, USD	Annual outputs
					Q1	Q2	Q3	Q4							
Outcome 1: Secondary Legislation is in place to support wind energy with the support of the project															
Output 1.1: Develop and agree provisions for institutional infrastructure based on the best European practice and policies, in particular for the State RES Cadastre, RES Inventory, and validation systems.															
Activities	1.1.1: Cadastre publication including all of the data that is required.				0	0	0	0	MNREP	62000	10003		0	Activity is planned for 2017-2018	
	1.1.2: Provide Ministry of Natural Resources and Natural Protection of the Republic of Belarus with manuals from other best practices markets for the implementation of a system to track renewable energy attributes specifically for wind farms.				0	0	0	0				0	Activity completed in 2015.		
	1.1.3: Provide a timeline for the future implementation of the certification system.				0	0	0	0				0	Activity is planned for 2017-2018		
	1.1.4: Provide training for the WESU on maintaining this system				0	0	0	0				0	Activity is planned for 2017-2018		
	1.1.5: Provide educational materials to market participants explaining the value of having such a system in place				0	0	0	0				0	Activity is planned for 2017-2018		
	Output 1.1, total GEF:				0	0	0	0							
Output 1.2: Formulated and enforced Secondary Legislation															
Activities	1.2.1: Conduct jointly with Wind Energy Support Unit Pro-forma* economic calculations for WPFI's projects supporting proposals for tariff schemes				0	0	0	0	MNREP	04000	00012		0	Activity completed in 2015.	
	1.2.2: The Project jointly with WESU will demonstrate that the suggested tariff levels are required and sufficient to incentivize the desired level of construction by benchmarking the economic calculations to European benchmarks (with the addition of appropriate premiums for country risk)				0	0	0	0				0	Activity is planned for 2017-2018		
	1.2.3: The Project jointly with WESU will develop and present projects from WPFI to the Ministry of Economy with suggested tariff schemes.				0	0	0	0				0	Activity is planned for 2017-2018		
	1.2.4: The Project jointly with WESU will negotiate with private developers, including women, for the inclusion of private projects into the WPFI Project Pool				0	0	0	0				0	Activity is planned for 2017-2018		
	1.2.5: Negotiate Investment Agreements for Project Pool with a single tariff rate for the entire Project Pool.				0	0	0	0				0	Activity is planned for 2017-2018		
	1.2.6: Cooperate with the European Union project and any other relevant projects, including representatives on Steering Committee in establishing the proposed tariff scheme.				0	0	0	0				0	Activity is planned for 2017-2018		
	Activity 1.2.7: Prepare a report for the Ministry of Economy to suggest adapting the above tariff scheme in Secondary Legislation implementing Law on RES				0	0	0	0				0	Activity is planned for 2017-2018		
	Activity 1.2.8: The project will analyze and prepare reports on two concepts for the tariff scheme demonstrating that the tariffs are harmonized with the best European practice.				0	0	0	0				0	Activity is planned for 2017-2018		
Output 1.2, total UNDP:				0	0	0	0								
Output 1.3: New/Improved Technical Norms and Standards															
1.3.1: WPFI together with the project, will support the introduction of new and improved technical norms by providing the most up to date techniques for wind turbine positioning, wind farm to grid connection inter alia.															
Activities	1.3.1.1. Review and analysis of international experience for regulation and application of techniques for wind turbine positioning, connection of wind farms to grid	pers/week	3	5000	0	5000	5000	5000	MNREP	62000	10003	71200	International consultants*	15 000	The international experience for regulation and application of techniques for wind turbine positioning, connection of wind farms to grid is reviewed and conclusions on the possibility of its adaptation in Belarus are made; recommendations related to improvement of technical norms & standards concerning wind energy in the Republic of Belarus are developed; a relevant report is prepared and approved by MNREP.
	1.3.1.2. Development of proposals for introduction of new and improved technical norms in the sphere of wind power development, including drafts of the relevant terms of reference.	pers/week	2	600	0	1200	0	0				71300	Local consultants	1 200	Current national technical legal acts on wind power development are analyzed, the relevant report is prepared and approved by the Ministry; the terms of reference for their amendment or/and development of new ones are prepared and approved by the Ministry.
	1.3.1.3. Development of the drafts of the technical regulatory documents according to the terms of reference developed under item 1.3.1.2.	month	12	50	150	150	150	150				72100	Contractor services - companies (informational services of legal databases)	600	The drafts of the technical legal documents for the wind power development are prepared, approved by the MNREP and recommended for the national approval procedure.
		pers/week	4	600	0	600	1200	600				71300	Local consultants	2 400	

3.1.5: Seek additional contributors to the funding of the WPF in order to extend the range of WPF capabilities.	pers/wk	6	600	3600	0	0	0
	pers/wk	1	5000	0	5000	0	0
3.1.6: WPF screens all of the Cadastre sites and selects 5 target sites based on the sites that can achieve the lowest possible energy rates.	consultancy and design service	1		0	0	10000	0
	days	3	80-160	0	100	100	100
	pers/wk	1	5000	0	0	5000	0
	pers/wk	8	600	0	1800	3000	0
3.1.7: As part of the pre-feasibility screening, WPF will gain preliminary clearance from the Ministry of Defence, Ministry of Communication and Informatization and other relevant agencies for sitting.	consultancy and design service	1		0	0	5000	0
3.1.8: WPF together with WESU will also seek to work through the established procedures with the Ministry of Defense to seek appropriate mitigation for the risks related to obtaining clearance from the Ministry of Defense 3.1.8.1. Development of guidelines for wind power developers on prefeasibility procedures of sites screening and mitigation of risks related to approval of the sites by the relevant governmental bodies	pers/wk	6	600	0	0	3600	0
	pers/wk	6	600	0	0	1800	1800
3.1.9: Final selection of the sites for development and obtaining of clearances and permits for the construction.	pers/wk	3	5000	0	0	5000	10000
	consultancy and design service	1		0	0	10000	20000
	days	20	33-82	0	500	500	500
	days	25	80-160	600	900	900	900
	pers/wk	4	600	0	0	1200	1200
Activity 3.1.10: Transmission review of selected sites.	consultancy and design service	1		0	0	10000	10000
	days	15	33-82	0		500	500
	days	15	80-160	0	0	900	900
	pers/wk	8	600	0	0	2400	2400
3.1.11: Securing permission for the selected sites; installment of meteorological towers of 98 m in height (or other equipment); wind parameters measurement.	pers/wk	4	5000	0	0	10000	10000
	set	3	70000	0	0	0	210000
	consultancy and design service	1		0	0	20000	30000
	days	10	33-82	0	0	0	500
	month	5	200	0	0	400	600
	days	15	80-160	0	0	900	900
	services	6	8,33	50	0	0	0
	pers/wk	2	5000	0	0	5000	5000
pers/wk	6	600	0	0	1800	1800	
Activity 3.1.12: WPF would begin the permitting, Power Purchase Agreement, and grid connection processes with the relevant agencies.				0	0	0	0
Activity 3.1.13: Working with WPF on a preliminary site layout that includes flexibility on turbine choice.				0	0	0	0
Activity 3.1.14: Environmental report for Investors.				0	0	0	0
Activity 3.1.15: The Project conjointly with Wind Energy Support Unit performs Pro Forma analysis on the selected projects and calculates the minimum tariff required to support the financing and construction of all of the selected projects including those from private developers.				0	0	0	0
Activity 3.1.16: The Project conjointly with Wind Energy Support Unit negotiates draft Investment Agreement with the Ministry of Economy using the tariff calculated in 3.1.15				0	0	0	0
Activity 3.1.17: After collecting one year of wind data, WPF will provide a financeable report that combines the on-site data with the existing long-term data (suitable for bank				0	0	0	0
Activity 3.1.18: Preparation of Information Memorandum				0	0	0	0
Activity 3.1.19: Consultant for tender of "Construction Ready" projects				0	0	0	0
Activity 3.1.20: The Project, WPF and the Wind Energy Support Unit will tender the Pre-Investment Assets to investors.				0	0	0	0
Output 3.1, total GEF:				7250	22300	98000	307100

MNREP

62000

10003

71300	Local consultants	3600	The report about the potential investors as well as financing organizations interested in cooperating with the Project on development of the wind farms is developed and approved by MNREP.
71200	International consultants*	5000	
72100	Contractor services - companies (consultancy and design service)	10000	The Cadaster sites are screened and the sites for further assessment for wind farms development are identified. The relevant report with justification of the selected sites is prepared and approved by the MNREP.
72100	Contractor services - companies (transportation services)	300	
71200	International consultants*	5000	
71300	Local consultants	4800	
72100	Contractor services - companies (consultancy and design service)	5000	1. The sites preliminary selected for wind farms development are considered and cleared by the Ministry of Defence, Ministry of of Communication and Informatization and other relevant governmental bodies.
71300	Local consultants	3600	1. The guidelines for wind power developers on prefeasibility procedures of sites screening and mitigation of risks related to approval of the sites by the relevant governmental bodies are developed.
71300	Local consultants	3600	
71200	International consultants*	15000	1. Final sites for wind data collection are identified; all relevant permits necessary for construction are obtained.
72100	Contractor services - companies (consultancy and design service)	30000	
71600	Local travel*	1500	
72100	Contractor services - companies (transportation services)	3300	
71300	Local consultants	2400	1. The possibility of connection of the future wind power installations to electrical grid is assessed. The relevant report with the technical, regulatory and financial analysis is prepared and approved by the MNREP.
72100	Contractor services - companies (consultancy and design service)	20000	
71600	Local travel*	1000	
72100	Contractor services - companies (transportation services)	1800	
71300	Local consultants	4800	1. The meteorological towers and wind measuring equipment are procured and transferred to the Wind farms design contractor.
71200	International consultants*	20000	2. Meteorological towers with wind measuring equipment are installed at least on 2 approved sites.
72200	Equipment (meteorological towers)*	210000	3. The necessary permits for the installment of wind measuring equipment are obtained.
72100	Contractor services - companies (consultancy and design service)	50000	
71600	Local travel*	500	
73400	Equipment maintenance	1000	
72100	Contractor services - companies (transportation services)	1800	
72100	Contractor services - companies (informational services of ictrade.by)	50	
		0	The activity is planned for 2017-2018
		0	The activity is planned for 2017-2018
		0	The activity is planned for 2017-2018
71200	International consultants*	10000	Several tariff options are calculated and the proposals for the inclusion in the investment agreements are made. The relevant report is prepared and approved by the MNREP.
71300	Local consultants	3600	
		0	The activity is planned for 2017-2018
		0	The activity is planned for 2017-2018
		0	The activity is planned for 2017-2018
		0	The activity is planned for 2017-2018
		0	The activity is planned for 2017-2018
		0	The activity is planned for 2017-2018
		434650	

Output 3.2: Identify and evaluate available public and private debt and equity financing for above site developments

Activity 3.2.1: Regular discussions and outreach with potential foreign and domestic developers and investors.	pers/wk	6	600	600	1200	1200	600
	pers/wk	1	5000	0	5000	0	0

71300	Local consultants	3600	1. Minutes and reports of the meetings held with the potential foreign and domestic developers and investors: proposals for the cooperation forms.
71200	International Consultants*	5000	2. The most probable partners of WPF projects are identified; the relevant report is prepared and approved by the MNREP.

Activities	Activity 3.2.2: The Project together with WPF1 and WESU will work with International Financial Institutions to identify and evaluate debt solutions.				0	0	0	0	MNREP	62000	10003				0	The activity is planned for 2017-2018		
	Activity 3.2.3: The Project together with WPF1 and WESU will provide term sheets for debt, as part of the Tenders, for the above projects based on international market terms and conditions.				0	0	0	0							0	The activity is planned for 2017-2018		
	Activity 3.2.4: The Project together with WPF1 and WESU will prepare term sheets for debt for projects that are currently being developed by developers such as Triple and Ecotech based on international market terms and conditions.				0	0	0	0							0	This activity should be revised during 2017		
	Output 3.2, total GEF:				600	6200	1200	600							8600			
Output 3.3: Completed support for the preparation of development work on the targeted sites																		
Activities	Activity 3.3.1: Completing the investment justification stage and preparation of pre-feasibility studies for construction and commissioning of wind energy plants in excess of 25 MW				0	0	0	0	MNREP	62000	10003				0			
	Output 3.3, total GEF:				0	0	0	0							0			
Total for outcome 3:					7 850	28 500	99 200	307 700				443 250						
Total for outcome 3/GEF:					7 850	28 500	99 200	307 700				443 250						
Total for outcome 3/UNDP:					0	0	0	0				0						
Outcome 4: At least 5 wind farm projects are successfully developed and the Wind Energy Support Unit continues to operate past the lifetime of the project																		
Output 4.1: Validation of data in existing Wind Atlas of Belarus																		
Activities	Activity 4.1.1: Site specific wind studies for at least (5) project sites will be used to validate the existing Wind Atlas of Belarus.				0	0	0	0	MNREP	62000	10003				0			
	Output 4.1, total GEF:				0	0	0	0							0			
4.2: Completed Web portal for the project																		
Activities	4.2.1: Develop a project site/portal	services	1	1000	0	1000	1000	1000	MNREP	62000	10003	72100	Contractor services - companies	3000				
		pers/week	20	600	1200	3600	3600	3600				71300	Local consultants	12000				
	Activity 4.2.2: The Project will support the MNRE in validation and actualization of the Wind Atlas of Belarus and will place the validated version on the Project's web portal.					0	0	0				0					0	The activity is planned for 2017-2018
	Activity 4.2.3: Publish all relevant documentation on the web portal including project tender documents and information memorandums.					0	0	0				0					0	The activity is planned for 2017-2018
	Activity 4.2.4: Development of the brochures explaining the value proposition of wind energy. These brochures will also be available on the web portal.					0	0	0				0					0	The activity is planned for 2017-2018
	Output 4.2, total GEF:					1200	4600	4600				4600					15000	
Outcome 4.3: Completed site study visits as part of project due diligence process.																		
Output 4.3, total GEF:																		
Output 4.3, total GEF:					0	0	0	0				0						
Outcome 4.4: Developed, reviewed, revised, finalized and published Lessons Learned study																		
Activities	Activity 4.4.1: After 24-months, the Project will hire an international consultant to perform an intermediate review.				0	0	0	0	MNREP	62000	10003				0			
	Output 4.4, total GEF:				0	0	0	0							0			
Total for outcome 4:					1200	4600	4600	4600				15000						
Total for outcome 4/GEF:					1200	4600	4600	4600				15000						
Total for outcome 4/UNDP:					0	0	0	0				0						
Project management																		
Activities	Project management	pers/wk	105	180-230	5445	5455	5455	5455	MNREP	62000	10003	71810	Contractor services - individuals long term	21810	1. The Project Steering Committee is exercising control and monitoring over the project implementation as well as compliance with the established quality standards, deadlines and budget limits. 2. The target indicators defined in the project documents are attained. 3. Reports required by the Letter of agreement and the national regulation of the technical assistance are duly prepared and submitted to the MNREP, UNDP and the Ministry of Economy. 4. The data required for the update of the project implementation in ATLAS are prepared and submitted to UNDP. 5. The draft of the AWP for 2017 is developed and approved by the MNREP and UNDP.			
		month	9	30	0	90	90	90				72420	Communication services	270				
		set	2	100	0	0	100	100				72505	Office supplies	200				
		month	9	100	0	300	300	300				73310	Project accounting software maintenance	900				
						200	1200	2000				1100	74559	Repayment of UNDP expenses*		4500		
		Project management, total GEF:					5645	7045				7945	7945					27680
		pers/wk	105	310-390	8880	8895	8895	8895				04000	00012	71810		Contractor services - individual long-term	35565	
		services	2		1468			5000						74110		Professional Services*	6468	
		Project management, total UNDP:					10348	8895						8895		13895		
		Project management total:					15993	15940				16840	20940				69713	
Project management total for GEF:					10348	8895	8895	13895				42033						
Project management total for UNDP:					15993	15940	7945	7045				27680						
TOTAL:					26 443	91 990	167 990	366 350				652 773						
TOTAL FOR GEF:					16 095	83 095	159 095	352 455				610 740						
TOTAL FOR UNDP:					10348	8895	8895	13895				42033						

* Direct payments

0

652 773

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