

CLEARED BY:

UNDP Deputy Resident Representative

Date

Project title: Removing Barriers to Wind Power Development in Belarus  
 Project number: 00087557  
 Year: 2018  
 Goals for the year:  
 1) Enforcement of new/ improved technical norms and standards  
 2) Organization and implementation of educational activities on wind energy  
 3) Development of design documentation for the construction of wind farms.  
 4) Development of activity of WPFI.  
 5) Identification of investors for wind power projects in Belarus.



Zachary Taylor

CLEARED BY:

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

Date



Aliaksandr Korbut

Annual Work Plan

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										
<b>Outcome 1: Secondary Legislation is in place to support wind energy with the support of the project</b>																		
<b>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.</b>																		
Мероприяття	1.1.1: Cadastre publication including all of the data that is required.	service	1	20600	10300	10300	0	-	MNREP	62000	10003	72100	Contract services - companies	20 600	1. The structure of the database of the RES Cadaster is developed. 2. Each of the sections of the State Cadastre of Renewable Energy Sources is modernized and updated. 3. The missing data are collected, the updated Cadastre is filled with this data. 4. The State Cadastre of RES is tested and, if necessary, corrected. 5. The RES Cadaster is published in an updated form on the Internet.			
	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.																	Activity is completed in 2015
	1.1.3: Provide a timeline for the future implementation of the certification system.																	
	1.1.3.1 Development of the system of "green" energy certification and creation of the carbon market.	pers/week	3	5 000	14014	0	0	0				71200	International consultants*	14 014	Based on the analytical work carried out in 2017, draft legal acts are prepared that ensure the functioning of the energy certification system produced by RES and the carbon market, which have been agreed with the stakeholders and submitted to the lawmaking body.			
		pers/week	6	600	1200	2400	0	0				71300	National consultants	3 600				
	1.1.4: Provide training for the WESU on maintaining this system																	
	1.1.4.1. Organization of the workshop on discussion of the overriding issues of wind energy development (including the issues of the improved State Cadaster of RES) on the World Wind day on 15 June.	service	1	7000	0	7000	0	0				72100	Contract services - companies (organization of workshops)	7 000	At least 20 participants of the event - representatives of local executive and administrative bodies of the Grodno region, MNREP, RUE BelRC Ecology, Belenergo, the Department for Energy Efficiency, public organizations, the project - expanded their knowledge on the current issues of forming the normative base for wind energy, raised their professional level, receiving current information on the formation of tariffs for RES, the impact of wind power on the environment, the impact of RES facilities on the network, the State Cadastre of RES.			
	1.1.5: Provide educational materials to market participants explaining the value of having such a system in place																	Activity is planned for 2019
	<i>Output 1.1, total GEF, Direct Payments:</i>					14014	0	0				0						14 014
	<i>Output 1.1, total GEF, UNDP services for project implementation :</i>																	
<i>Output 1.1, total GEF, Direct Cash Transfer:</i>					11 500	19 700	0	0							31 200			
<b>Output 1.1, total GEF:</b>					<b>25 514</b>	<b>19 700</b>	<b>0</b>	<b>0</b>							<b>45 214</b>			
<b>Output 1.2: Formulated and enforced Secondary Legislation</b>																		
1.2.1: Conduct jointly with Wind Energy Support Unit Pro-forma* economic calculations for WPFI's projects supporting proposals for tariff schemes															Activity is 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)															Activity is planned for 2019			
1.2.3: The Project jointly with WESU will develop and present projects from WPFI to the Ministry of Economy with suggested tariff schemes.	pers/week														Activity is completed in 2017			
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	days	15	38-96	300	300	300	300	71600	Local travel**	1 200	1. The number of attracted qualified investors to participate in the first auction for the sale of a pre-investment asset is at least 3. 2. The minutes of the relevant meetings and negotiations, approved by MNREP, are prepared.							







3.1.9.1. Obtaining land allocation certificate	pers/week	4,5	500	2200	0	0	0
	consultancy and design service	1	22000	0	0	0	0
3.1.9.2. Obtaining technical specification for the connection to the grid	consultancy and design service	1	7000	0	0	0	0
	days	7	60-80	700	0	0	0
3.1.10: Transmission review of selected sites.							
3.1.10.1 Organization of the study tour to South Korea on the issues of transmission of energy produced by RES to the grid	pers/days	50-80	250-310	0	23000	0	0
3.1.10.2. Modelling various options of development of the power system balance of Belarus	service	1	60000	0	20000	40000	0
3.1.11: Securing permission for the selected sites;; isntallment of meteorological towers of 98 m in height (or other equipment)							
3.1.11.1. Wind parameters measurement at the selected sites	pers/week	6	600		1200	1200	1200
	pers/week	13	500		2200	2200	2200
	consultancy and design service	1	49587	0	49587	0	0
	год	1	1000	1000	0	0	0
	days	5	38-96	0	200	96	100
	мес	12	100-200	237	600	600	0
	days	5	80-160	700			
	days	3	80-160	300	0	364	0
3.1.11.2. Dismantling of wind measurement equipment	service	1	35000	0	35000	0	0
3.1.11.3. Preventive and corrective maintenance of the meteorological equipment							
3.1.12: WPF1 would begin the permitting, Power Purchase Agreement, and grid connection processes with the relevant agencies.							
3.1.12.1. Developing WPF1 capacity	service	1	44 000	11 000	11 000	11 000	11 000
3.1.13: Working with WPF1 on a preliminary site layout that includes flexibility on turbine choice.	service	1	30000	0	24000	6000	0
	pers/week	6	600	1200	1200		1 200
	pers/week	22	500	1100	4400	0	4400

MNREP

62000

10003

71800	Contractor services - individuals	2 200,00	The land allocation certificates are obtained for 4 sites (apart from Veleshkovichi).
72100	Contract services - companies (consultancy and design service)	0,00	
72100	Contract services - companies (consultancy and design service)	0,00	Technical specification for the connection to the grid are obtained for all sites.
72100	Contract services - companies (transport service)	700,00	
71600	International travel **	23 000	1. 8 experts - representatives of MNREP, Ministry of Energy, Belenergo, the Department for Energy Efficiency studied the international experience in transferring energy produced by RES to the grid, as well as experience in other aspects of wind energy development, prepared proposals for optimizing the process of transfer of energy produced by RES, as well as on the development of wind power in Belarus in general.
72100	Contract services - companies (consultancy services)	60 000	1. Several models of the balance of the energy system of Belarus are developed in accordance with the planned strategic vision for the development of renewable energy sources and wind power in particular. 2. Based on the developed models, recommendations are prepared for stakeholders on the development of relevant normative legal acts. 3. The final report is approved by MNREP and the Ministry of Energy.
71300	National consultants	3 600,00	1. The semi-annual phase of the wind measurement campaign is finalized, a corresponding report is prepared and adopted by MNREP. 2. The annual cycle of the wind measurement campaign is completed, the corresponding report is prepared and adopted by MNREP.
71800	Contractor services - individuals	6 600,00	
72100	Contract services - companies (consultancy and design service)	49 587,00	
74500	Insurance consts (services for insurance of wind measurement complexes)***	1 000,00	
71600	Local travel**	396,00	
73400	Equipment maintenance	1 437,00	
72100	Contract services - companies (transport service)**	700,00	
72100	Contract services - companies (transport service)	664,00	
72100	Contract services - companies (service on dismantling)	35 000,00	Dismantling equipment owned by Belhydromet is dismantled at 2 sites for further use in wind-measuring campaigns for updating the Atlas of wind potential
73406	Equipment repair (radar)*	0,00	Preventive maintenance of Doppler weather radar, installed at the National Airport Minsk is performed; instructions for its transfer are prepared.
72100	Contract services - companies (consultancy and design service)	44 000,00	1. The WPF1 carries out its activities in accordance with the Terms of Reference and the Charter, monthly reports on the activities of the WPF1 are provided in MNREP and approved by MNREP. 2. WPF1 obtains certificate of compliance with the performance of the functions of the Customer, the Developer, provision of engineering services in construction.
72100	Contract services - companies (consultancy and design service)	30 000,00	The project design documentation for the Veleshkovichi site is developed and approved.
71300	National consultants	3 600,00	
71800	Contractor services - individuals	9 900,00	



Output 3.2: Identify and evaluate available public and private debt and equity financing for above site developments																			
Activities	3.2.1: Regular discussions and outreach with potential foreign and domestic developers and investors.	pers/week	6	600	1200	600	600	1200	MNREP	62000	10003	71300	National consultants	3 600	1. Protocols and reports on meetings with potential foreign and national investors are prepared; proposals on forms of cooperation are developed. 2. The most likely partners of the WPFI are identified; a corresponding report is prepared and approved by MNREP.				
	3.2.2: The Project together with WPFI and WESU will work with International Financial Institutions to identify and evaluate debt solutions.																	The activity is completed in 2017.	
	3.2.3: The Project together with WPFI and WESU will provide term sheets for debt, as part of the Tenders, for the above projects based on international market terms and conditions.																	The activity is completed in 2017.	
	3.2.4: The Project together with WPFI 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.																	The activity is completed in 2017.	
	Output 3.2., total GEF, Direct Payments:				0	0	0	0										0	
	Output 3.2., total GEF, UNDP services for project implementation :				0	0	0	0										0	
	Output 3.2., total GEF, Direct Cash Transfer:				1 200	600	600	1 200										3 600	
<b>Output 3.2., total GEF:</b>				<b>1200</b>	<b>600</b>	<b>600</b>	<b>1200</b>							<b>3600</b>					
Output 3.3: Completed support for the preparation of development work on the targeted sites																			
Activities	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								MNREP	62000	10003	72100	Contract services - companies ( service for organization of study tours)	10 000	1. At least 12 specialists from MNREP, the Ministry of Energy, the Department for Energy Efficiency, the MART, the Ministry of Finance raised their level of knowledge about the planning, financing and implementation of the project for the construction of a wind farm, and also increased their professional potential to attract partners and investors to implement renewable energy projects in Belarus .				
	3.3.1.1. Organization of participation of Belarusian distinguished specialists in the sphere of RES in thematic conferences, forums, to promote wind power investment to Belarus.	service	1	10000	0	0	10000	0											
		pers/days	60-80	250-350	0	5000	13000	4000						71600		International travel **	22 000		
	Output 3.3., total GEF, Direct Payments:				0	0	0	0											
	Output 3.3., total GEF, UNDP services for project implementation :				0	5000	13000	4000											22 000
	Output 3.3., total GEF, Direct Cash Transfer:				0	0	10 000	0											10 000
	<b>Output 3.3., total GEF:</b>				<b>0</b>	<b>5000</b>	<b>23000</b>	<b>4000</b>											<b>32000</b>
Total for outcome 3, Direct Payments:				0	10 000	10 000	10 000								30 000				
Total for outcome 3, UNDP services for project implementation :				700	28 200	13 096	4 100								46 096				
Total for outcome 3, Direct Cash Transfer:				29 427	173 587	90 964	37 400								331 378				
<b>Total for outcome 3:</b>				<b>30 127</b>	<b>211 787</b>	<b>114 060</b>	<b>51 500</b>								<b>407 474</b>				
Total for outcome 3/GEF, Direct Payments:				0	10 000	10 000	10 000								30 000				
Total for outcome 3/GEF, UNDP services for project implementation :				700	28 200	13 096	4 100								46 096				
Total for outcome 4 3/GEF, Direct Cash Transfer:				29 427	173 587	90 964	37 400								331 378				
<b>Total for outcome 3/GEF:</b>				<b>30 127</b>	<b>211 787</b>	<b>114 060</b>	<b>51 500</b>								<b>407 474</b>				
<b>Total for outcome 3/UNDP:</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>							<b>0</b>					
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	4.1.1: Site specific wind studies for at least (5) project sites will be used to validate the existing Wind Atlas of Belarus.								MNREP	62000	10003				Activity is planned for 2019				
		Результат 4.1 , итого ГЭФ:																	
4.2: Completed Web portal for the project																			
Activities	4.2.1: Develop a project site/portal								MNREP	62000	10003								
	4.2.1.1. Maintaining the web-site updated, preparation of informational materials for the web-site, liaising with the public and stakeholders on the issues of project implementation.	мес.	12	400	1200	1200	1200	1200						72100	Contract services - companies	4800	1. The website of the project is maintained in an up-to-date state, the number of users increases monthly. 2. At least 80 articles, reviews, press releases are prepared and posted on the site. 3. At least 5 PR events are held.		
		pers/week	20	600	1200	3600	3600	3600						71300	National consultants	12000			
	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.																	Activity is planned for 2019	
	4.2.3: Publish all relevant documentation on the web portal including project tender documents and information memorandums.				0	0	0	0										For the duration of the project, the documentation is posted on the project's website.	
	4.2.4: Development of the brochures explaining the value proposition of wind energy. These brochures will also be available on the web portal.	service	1	4000	2000	2000	0	0						04000	00012	74210	Audio Visual & Print Prod Costs	4000	Preparation and printing of brochures on 1) EIA - of circulation not less than 200 copies; and 2) De-risking study – of at least 100 copies.
	Output 4.2, total GEF, Direct Payments:				0	0	0	0										0	
	Output 4.2, total GEF, UNDP services for project implementation:				0	0	0	0										0	
	Output 4.2, total GEF, Direct Cash Transfer:				2 400	4 800	4 800	4 800											16 800
	<b>Output 4.2, total GEF :</b>				<b>2 400</b>	<b>4 800</b>	<b>4 800</b>	<b>4 800</b>										<b>16 800</b>	
Output 4.2, total UNDP, Direct Payments:				0	0	0	0							0					
Output 4.2, total UNDP, UNDP services for project implementation:				0	0	0	0							0					
Output 4.2, total UNDP, Direct Cash Transfer:				2000	2000	0	0								4 000				
<b>Output 4.2, total UNDP:</b>				<b>2000</b>	<b>2000</b>	<b>0</b>	<b>0</b>							<b>4 000</b>					
<b>Output 4.2, Total:</b>				<b>4 400</b>	<b>6 800</b>	<b>4 800</b>	<b>4 800</b>							<b>20 800</b>					
<b>Outcome 4.3: Completed site study visits as part of project due diligence process.</b>		Результат 4.3 , итого ГЭФ:													0				

Outcome 4.4: Developed, reviewed, revised, finalized and published Lessons Learned study																	
Activities	4.4.1: After 24-months, the Project will hire an international consultant to perform an intermediate review.																
	days	3	38-220	300	0	0	0	0	MNREP	62000	10003	71600	Local travel**	300,00	0	Mid-term review of the project implementation is undertaken, a relevant report is prepared and approved by UNDP and MNREP.	
	<b>Outcome 4.4 , Total GEF:</b>				<b>300</b>	<b>0</b>	<b>0</b>	<b>0</b>						<b>300</b>			
<b>Total for outcome 4, Direct Payments:</b>																	
<b>Total for outcome 4, UNDP services for project implementation :</b>																	
<b>Total for outcome 4, Direct Cash Transfer:</b>																	
<b>Total for outcome 4:</b>																	
<b>Total for outcome 4/GEF, Direct Payments:</b>																	
<b>Total for outcome 4/GEF, UNDP services for project implementation :</b>																	
<b>Total for outcome 4/GEF, Direct Cash Transfer:</b>																	
<b>Total for outcome 4/GEF:</b>																	
<b>Total for outcome 4/UNDP:</b>																	
<b>Total for outcome 4/UNDP, Direct Payments:</b>																	
<b>Total for outcome 4/UNDP, UNDP services for project implementation :</b>																	
<b>Total for outcome 4/UNDP, Direct Cash Transfer:</b>																	
<b>Project management</b>																	
Activities	Project management																
	pers/week	32	170-205											6460			
	mcc.	12	20-30	120	120	120	120							480			
	item	1		2000										2000			
	mcc.	12	100	300	300	300	300							1200			
				1000	1000	1000	1000							4000			
	<b>Project management, total GEF:</b>				<b>3420</b>	<b>1420</b>	<b>1420</b>	<b>7880</b>							<b>14140</b>		
	pers/week	177	200-250	4785	14350	14350	7890								41375		
	service	1	5000		5000	0	0								5000		
	<b>Project management, total UNDP:</b>				<b>4785</b>	<b>19350</b>	<b>14350</b>	<b>7890</b>							<b>46375</b>		
<b>Total for Project Management, Direct Payments:</b>																	
<b>Total for Project Management, UNDP services for project implementation :</b>																	
<b>Total for Project Management, Direct Cash Transfer:</b>																	
<b>Total Project Management:</b>																	
<b>Total for Project Management/GEF Direct Payments:</b>																	
<b>Total for Project Management/GEF, UNDP services for project implementation :</b>																	
<b>Total for Project Management/GEF, Direct Cash Transfer:</b>																	
<b>Total Project Management/GEF:</b>																	
<b>Total for Project Management/UNDP Direct Payments:</b>																	
<b>Total for Project Management/UNDP, UNDP services for project implementation :</b>																	
<b>Total for Project Management/UNDP, Direct Cash Transfer:</b>																	
<b>Total Project Management/UNDP:</b>																	
<b>TOTAL PROJECT:</b>																	
<b>Total Project, Direct Payments:</b>																	
<b>Total Project, UNDP services for project implementation :</b>																	
<b>Total Project, Direct Cash Transfer:</b>																	
<b>TOTAL PROJECT/GEF:</b>																	
<b>Total Project/GEF, Direct Payments:</b>																	
<b>Total Project/GEF, UNDP services for project implementation :</b>																	
<b>Total Project/GEF, Direct Cash Transfer:</b>																	
<b>TOTAL PROJECT/UNDP:</b>																	
<b>Total Project/UNDP, Direct Payments:</b>																	
<b>Total Project/UNDP, UNDP services for project implementation :</b>																	
<b>Total Project/UNDP, Direct Cash Transfer:</b>																	

\* Direct payments  
\*\* UNDP services for project implementation

UNDP Programme Officer

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14 MAR 2018

*(Handwritten signatures)*