



Reducing barriers to promote electric mobility in the Republic of Belarus through the introduction of ultra-fast charging stations

Part I: Project Information

GEF ID

10421

Project Type

MSP

Type of Trust Fund

GET

CBIT/NGI

CBIT

NGI

Project Title

Reducing barriers to promote electric mobility in the Republic of Belarus through the introduction of ultra-fast charging stations

Countries

Belarus

Agency(ies)

UNDP

Other Executing Partner(s)

Executing Partner Type

Other Executing Partner(s)

Ministry of Natural Resources and Environmental Protection

Executing Partner Type

Government

GEF Focal Area

Climate Change

Taxonomy

Focal Areas, Climate Change Mitigation, Climate Change, Sustainable Urban Systems and Transport, Influencing models, Transform policy and regulatory environments, Stakeholders, Type of Engagement, Consultation, Gender Equality, Gender results areas, Access to benefits and services, Participation and leadership, Capacity, Knowledge and Research, Enabling Activities

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 2

Climate Change Adaptation

Climate Change Adaptation 0

Duration

48 In Months

Agency Fee(\$)

123,305

Submission Date

2/5/2020

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCM-1-2	GET	1,297,945	13,606,005
	Total Project Cost (\$)	1,297,945	13,606,005

B. Indicative Project description summary

Project Objective

The project aims to remove barriers to the e-vehicle market in Belarus by removing barriers to help make e-vehicles more accessible to the population by changes to legislation, regulations, and policy, by pilot investments to stimulating the necessary infrastructure investments in the charging network leading to direct greenhouse gas emission reductions of 28,000 tonnes of CO2e over the lifetime of the investments and indirect greenhouse gas emission reductions of 115,000 tonnes of CO2e.

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
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Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 1: Government and Municipal Regulations and Policy Change	Technical Assistance	Improved policies and regulations to promote increased purchase and management of electric vehicles	<p>1.1 New national policy on sustainable transport which includes measures for the promotion of eMobility and future management of operation and maintenance of eMobility technology is developed and adopted,</p> <p>1.2 Gap Analysis of all current relevant legislation to identify gaps that could be introduced in order to help promote electric mobility</p> <p>1.3 Regulation brought into force on minimum purchase quotas of e-Vehicles for state fleets (target from 2 to 5%)</p> <p>1.4. Removal or increase of purchase price limits on state vehicles where vehicles to be purchased are eVehicles</p> <p>1.5. Introduction to at least 2 municipalities regulations for incentivizing eVehicle use, including use of bus lanes and free parking among others</p> <p>1.6.Introduction of other regulations/policies based on the gap analysis to promote eMobility</p> <p>1.7 Feasibility study on rebate scheme for promoting purchase of electric vehicles</p>	GET	200,000	900,000

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 2: Pilot Studies for E-Vehicle and Charging Infrastructure	Technical Assistance	Investment in fast Charging stations is realized	2.1. Feasibility studies carried out for at least 3 Super-Fast Charging Stations	GET	79,950	320,000
Component 2: Pilot Studies for E-Vehicle and Charging Infrastructure	Investment	Investment in fast Charging stations is realized	2.2. Installation of at least 3 - two or more berth Super-Fast Charging Station(s) (300+kW) to compliment the charging infrastructure network of Belarus. 2.3. Walk through visits for senior governmental officials to the Super-Fast Charging Stations	GET	700,000	11,304,000

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 3: Building Capacity and Raising awareness about eMobility	Technical Assistance	Promotion of eVehicles to help consumers make educated decisions on e-vehicle purchases	<p>3.1. Nationwide PR Campaign on eVehicles deployed involving car dealers</p> <p>3.2. Interactive website/app created with charging infrastructure locations and calculations of charging cost (one time, monthly and annually)</p> <p>3.3 Project Website</p> <p>3.4. Monitoring, reporting and verification of GHG emission reductions from the project activities</p> <p>3.5. National Workshop on Electric Vehicles held</p> <p>3.6. Video highlighting results from the demo projects</p> <p>3.7. Lessons learned study completed</p>	GET	200,000	1,000,000
Sub Total (\$)					1,179,950	13,524,000
Project Management Cost (PMC)						
				GET	117,995	82,005
Sub Total(\$)					117,995	82,005

Project Management Cost (PMC)

Total Project Cost(\$)

1,297,945

13,606,005

C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Government	Ministry of Natural Resources and Environmental Protection	In-kind	Recurrent expenditures	100,000
Government	Ministry of Energy	In-kind	Recurrent expenditures	100,000
Government	Ministry of Transport	In-kind	Recurrent expenditures	100,000
Government	Ministry of Industry	In-kind	Recurrent expenditures	100,000
Government	Department of Energy Efficiency	In-kind	Recurrent expenditures	100,000
GEF Agency	UNDP (EU4Climate)	Grant	Recurrent expenditures	1,600,000
GEF Agency	UNDP	Grant	Recurrent expenditures	82,005
Others	Belarus-Neft	In-kind	Recurrent expenditures	120,000
Others	Belarus-Neft	Equity	Investment mobilized	11,304,000
			Total Project Cost(\$)	13,606,005

Describe how any "Investment Mobilized" was identified

*Private Sector co-financing (e.g. Car Dealer's and Manufacturers (such as Unison) will be explored in more details during the PPG Phase.) Representatives of the key stakeholders (Ministry of Natural Resources and Environmental Protection, Ministry of Energy, Ministry of Transport, Ministry of Industry, Department of Energy Efficiency) will be included on a Project Board, providing in-kind services through this board. They will also provide in-kind service through development of a new national policy on sustainable transport and/or corrections to the existing regulations to promote and stimulate the usage of e-vehicles in Belarus. Representatives of the Ministry of Energy will be involved in the issuing of relevant administrative permits for approving placement of the super-fast charging stations. The Ministry of Natural Resources and Environmental Protection will act as the National Implementing Agency of the project. In parallel with the project "Reducing barriers to promote electric mobility in the Republic of Belarus through the introduction of ultra-fast charging stations", UNDP will implement the project "EU4Climate" funded by the European Union with a budget of US\$1.6 million for Belarus. The latter project will be

implemented in 2019-2022 and aims to support the development and implementation of climate-related policies by Belarus which contribute to its low emission and climate resilient development and the country's commitments to the Paris Agreement on Climate Change. Belarus-neft will provide an in-kind contribution of 120,000 USD for this project with the estimation based upon dedicated full time staffing of 5 persons working on planning, procurement and installation of the charging stations. Also these specialists will be involved as consultants in discussion of the new national policy on sustainable transport and/or corrections to the existing regulations to promote and stimulate the usage of e-vehicles in Belarus. In addition, investment will be mobilized for the cost of charging stations. The estimate for the equity investment of the key stakeholder Belarus-Neft is based upon the average cost of procuring and installation of AC and DC medium and fast charging stations (Mode 3 and 4). Mode 3 stations are planned for installation at less than 25kW charging capacity (several hours for charging); while Mode 4 stations are planned at less than 150kW (close to an hour for charging). The costs for these chargers provided by Belarus-Neft are for Mode 3 - 4,500 USD and Mode 4 – 32,000 USD including installation. The total planned equity investment into charging stations scheduled for installation during the project period from 2020/21-2024/5 is 360,000 USD for 80 Mode 3 Chargers and 10,944,000 USD for 342 Mode 4 chargers, totally 11,304,000 USD.

D. Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNDP	GET	Belarus	Climate Change	CC STAR Allocation	1,297,945	123,305	1,421,250
Total GEF Resources(\$)					1,297,945	123,305	1,421,250

E. Project Preparation Grant (PPG)

PPG Required

PPG Amount (\$)

50,000

PPG Agency Fee (\$)

4,750

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNDP	GET	Belarus	Climate Change	CC STAR Allocation	50,000	4,750	54,750
Total Project Costs(\$)					50,000	4,750	54,750

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)	28000	0	0	0
Expected metric tons of CO₂e (indirect)	115000	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)				
Expected metric tons of CO₂e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)	28,000			
Expected metric tons of CO₂e (indirect)	115,000			
Anticipated start year of accounting	2022			
Duration of accounting	10			

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	14,000			
Male	21,000			
Total	35000	0	0	0

Part II. Project Justification

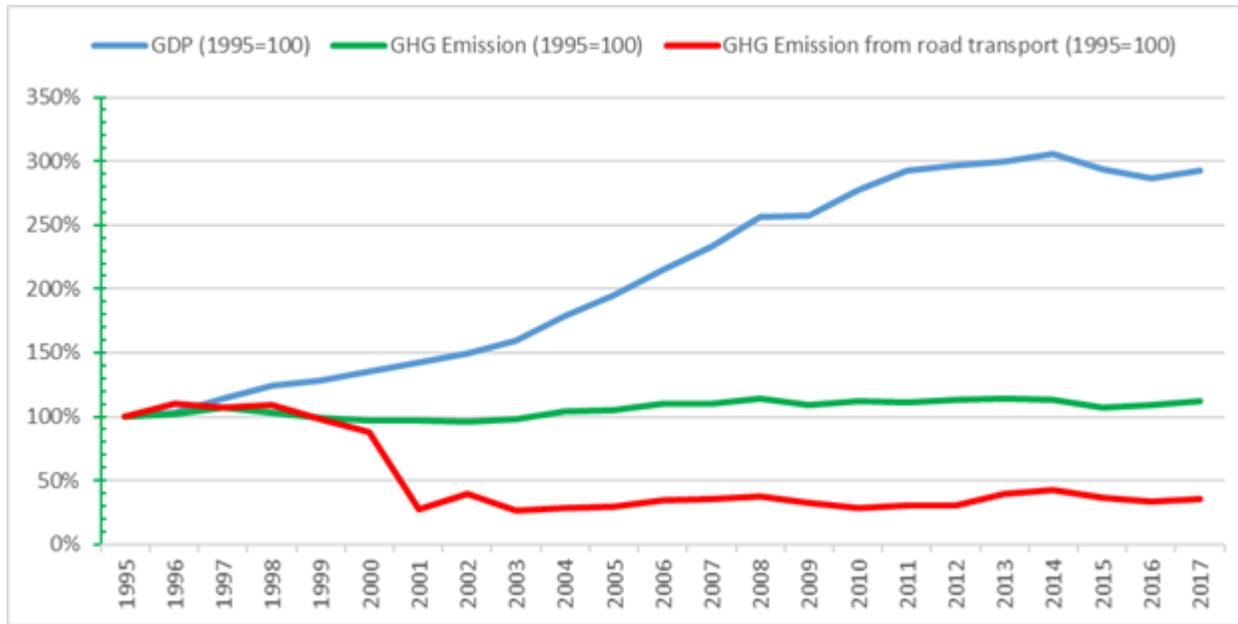
1a. Project Description

1. *Project Description:*

1. Belarus emitted about 94 million tonnes of CO₂e in 2017 excluding Land use, land-use change and forestry (LULUCF)[1]¹, which is about 0.176% of the global GHG emissions[2]². While the economy grew by almost 300% during the period between 1995 and 2017, the level of greenhouse gas (GHG) emissions remained relatively stable, i.e. an increase of only 12% compared to the 1995 level has been recorded (Figure 1). This is largely due to implementation of energy efficiency policies and measures and reduction in the share of oil in the total primary energy supply from 1990 to 2017. Approximately 61% of the GHGs was emitted from energy use, followed by agriculture (25%) and waste (7%). The country is also a large net sink of carbon, i.e. about 13,3 million tCO₂e in 2017.

2. Road transport is responsible for about 1 million tCO₂e (2017) although in 1995 the emission from road transport was three times higher.

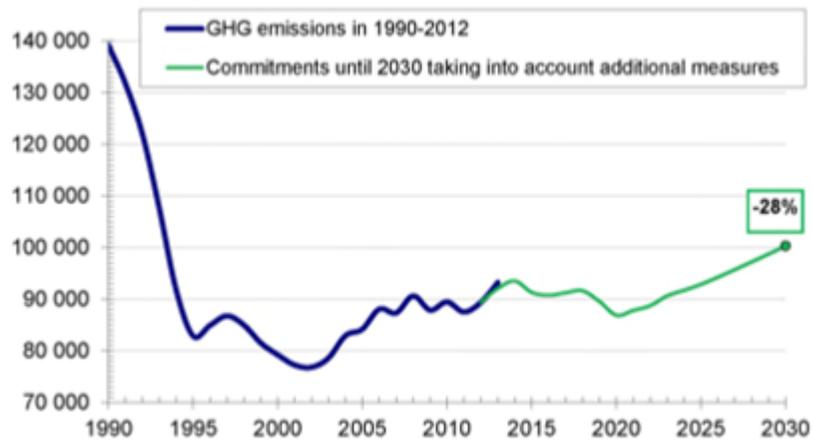
Figure 1 GDP and GHG Emissions in the Republic of Belarus: 1995-2017



Source: Data of the GHG National Inventory Report 2019

3. Belarus has submitted its intended nationally determined contribution (NDC) to the UNFCCC in 2015^[3] with an absolute GHG emission reduction target. In its NDC, Belarus undertakes by 2030 to reduce GHG emissions by at least 28 % of the 1990 level, excluding emissions and removals in the land use, land-use change and forestry sector.
4. As shown above, the country has managed to prevent its GHG intensity per unit of GDP from increasing over the past decade. However, potential for sustained low-carbon economic growth beyond 2020 is very limited since most cost-effective options to reduce GHG emissions have been realized in the last decade. Therefore, it is anticipated that continued economic growth would lead to an increase in GHG emissions in the period 2020 – 2030 as illustrated at Figure 2.

Figure 2 GHG emissions in the Republic of Belarus in 1990 - 2030, mln tCO₂e



Source: NDC

5. Considering the forecast of future GHG emissions and the increasing contribution of GHGs in the transport sector, it is necessary to look at mitigating factors for Belarus' transport sector. An obvious solution is in technology improvements, such as eVehicles which can feasibly replace polluting petroleum based vehicles. However, there are high tax barriers preventing the uptake of e-vehicles and a poorly developed charging network. There is a strong case for changing the business as usual scenario to remove barriers to e-vehicle market development.

6. **Baseline Situation:** Currently, there are around 300 electric cars in Belarus and more than 80 electric buses. This compares to Ukraine, that had almost 25,000 e-vehicles in operation in early 2019. Despite Ukraine's population being larger, per capita this is still equivalent to approximately 10x more vehicles than Belarus. There are currently 125 charging stations installed in Belarus from which 50 stations are Level 3 and 75 stations are Level 4. The reasons for the slow deployment of electric vehicles in Belarus are largely due to the customs and VAT taxes applicable to e-vehicles, which are absent in Ukraine, significantly incentivizing e-vehicle uptake there. Other barriers to commercialization identified are listed in the Table 1.

Table 1 Barriers to commercialization of the eVehicles

Barrier	Means of Overcoming Barrier
Lack of municipal regulation incentives	Free parking for E-Vehicles, Use of bus lanes, other incentives to be investigated
High price of e-vehicles	Changes to import and VAT regulations to reduce the end user cost
Lack of charging stations	Charging Infrastructure deployment
Lack of maintenance/spare parts	Private industry needs to address with Government support
Lack of Awareness	Public campaigns to promote e-vehicle use

7. The current customs (minimum 18%) and VAT (20%) add an additional minimum 38% to the base e-vehicle price (actually tax varies between 38 and 54% depending upon age, cost and other factors), which is the same for all vehicles sold in Belarus. Clearly, a minimum 38% reduction in price would be a big incentive to the uptake of electric vehicles in Belarus. In the case of customs and duties remaining in place, the (Belarus-Neft) e-vehicle market report assumes a very slow growth from the existing 300 to 7000 vehicles by 2025 with a pessimistic business as usual scenario.

8. However, as part of the baseline of this project, it will be assumed that Belarus manages together with state partners to change the VAT and customs duties within the Eurasian Union for eVehicles before or during the project without GEF involvement. Currently negotiations are ongoing with the government and Belarus-Neft is optimistic of this barrier being removed. This could change the predicted eVehicle uptake by an estimated almost 20x to over 130,000 vehicles by 2025 (as per the internal Belarus-Neft report - available upon request).

9. In the public transport sector, e-buses have been in deployment since 2017. Currently there are around 80 e-buses operating in Belarus and almost all of them are in Minsk. The situation with future e-bus deployment in Belarus isn't clear. From one side Belarus has its own e-bus producer (OJSC "Holding management company "Belkommunmash") and the governmental policy is to stimulate production of innovative products, such as e-Buses. From the other side due to low economic efficiency of the e-buses operation in Belarus (for example, simple pay-back period for the total maintenance cost of the e-buses exceeds 10 years) the growth rate of e-bus deployment is slow. As a result of such situation OJSC "Holding management company "Belkommunmash" is oriented to supply e-buses to foreign markets (mainly to Russia). Nevertheless, it should be noted that the penetration level of the e-buses at the Belarussian market could change significantly after commissioning the Belarussian NPP (Nuclear Power Plant) and especially if a preferential tariff for electricity used by e-transport will be set up that will cause the combined operational and depreciation costs of the eBuses to become more competitive with diesel buses.

10. Private eVehicles were produced by a Belarusian-British car company "UNISON" which assembles cars and commercial vehicles. Currently the assembly line includes dozens of models, including the e-vehicle Zotye E200EV. However, there were only 18 e-vehicles produced and as this model was not successful on the consumer market, the "UNISON" management decided to stop its production. The assembly was stopped because the plant is under reconstruction now. It is planned that production of eVehicles will resume after launching a full plant upgrade. "UNISON" management announced that it could happen as early as next year. Also it is planned to start production of commercial eVehicles.

11. Not only are their problems with the domestic eVehicle manufacturing market being not well developed, the charging infrastructure, vital for eVehicles is also very undeveloped. According to the Resolution of the Council of Ministries No.731 dated October 10, 2018 RUE "Production Association Belorusneft" is charged with the functions of creating and developing a state charging network for charging eVehicles in Belarus and designated as the state operator. However, currently the charging infrastructure of Belarus consists of a mere 125 charging stations and no super-fast charging stations. By the end of 2019 it is planned to install an additional 80 charging stations and by the end of 2021 the total number will reach 430 slow and fast (but not super-fast) charging stations. According to government plans, further development of the charging stations network will depend on the number of e-vehicles in Belarus, which provides a "Chicken and Egg" situation; clearly a robust charging network needs to be in place for potential users to consider an eVehicle purchase.

12. The **alternative scenario** for Belarus focuses on assisting with initial investments in innovative charging technology in addition to the promotion of e-Vehicle uptake so as to catalyse eMobility development but there is no provision for Super-Fast charging stations. While Belarus-Neft is already installing Level 3 and Level 4 charging stations, the installation of Super-Fast charging stations is also necessary to make e-vehicle use more attractive and convenient for local users and transit users of these charging stations. Super-fast charging stations are vital at locations where drivers would not normally stop for long, such as locations on regional and international highways. As such, it is believed that a pilot project of super-fast charging stations, will allow users to feel the convenience of being able to charge their vehicles in 10 minutes, therefore incentivising e-vehicle use.

13. Meetings with stakeholders in Belarus generated many ideas for the project, including rebate financing schemes and developing policies and strategies to support public transport, however, two main areas of focus were decided upon that include investments in innovative charging technology and promotion of the uptake of e-Vehicles through municipal quotas on e-Vehicles and PR activities together with supporting activities as described in the following project components:

14. **Component 1:** – Component 1 of the project will involve Government and Municipal Regulations Change including a new national policy on sustainable transport that includes promotion of eMobility. Also, an introduction of a quota (5% or less) for municipal companies' e-vehicle fleets and free parking for and use of bus lanes for e-Vehicles. Under the first component there will also be gap analysis of all existing legislation on sustainable transport as it related to promoting electric mobility with a view to introducing new regulations and/or policies as appropriate. A feasibility study for a rebate scheme (working with car dealers) will also be carried out under component 1.

15. **Component 2:** – Component 2 of the project will consist of designing and implementing pilot demonstration projects. These pilot demonstration project will involve a study of the existing network and creation of a strategy to enhance the charging infrastructure network according to the latest international standards with deployment of several superfast charging stations in highly visible and critical locations (touristic, main highways etc...) using the available technical assistance funding to assist with procurement, delivery and installation according to international best practice. The strategy should also identify future fast-charging locations to be deployed with co-financing from Belarus-Neft or other strategic partners identified during the creation of the superfast charging network strategy.

16. **Component 3:** – Component 3 of this project aims to build capacity and raise awareness about eMobility through disseminating the results of Component 1 & 2 with a PR strategy that involves sourcing of co-financing from car dealers (first and/or second hand) that are willing to sell eVehicles and assist in the PR and awareness raising campaign. A project website will also be developed under component 3. As part of the awareness raising and capacity building, Component 3 will hold a National Workshop that promotes eVehicle use and develops and disseminate a “lesson’s learned” document that can be used for other countries/regions wishing to develop their eVehicle markets. Further awareness of the project will be raised through creation of an app and/or website for users to view charging stations and also calculate savings/costs of charging daily/weekly/monthly and yearly vs petrol/diesel vehicles. In addition, the project will produce a short video to highlight the results from the demonstration projects.

17. This project fits within GEF’s focal area of Climate Change, specifically GEF-7 Programming Directions for Climate Change Focal Area Investments and Associated Programming. There is an existing programme dealing with electric mobility which has indicated as its first Objective: “**promote innovation and technology transfer for sustainable energy breakthroughs**”. The project’s financing for a pilot of super-fast charging stations is one of **4 entry points** highlighted within the innovative technology area (**electric drive technologies and electric mobility**) and follows with the GEF established track-record of providing funding to demonstration projects that would otherwise not be within the reach of environmental finance due to market immaturity in this area.

18. The incremental/additional cost reasoning and expected contributions from co-financing are summarized in the following sub-paragraphs:

- a. The current situation in Belarus is that eVehicles are not treated differently to any other vehicle type from a market perspective. This means that consumers and public entities currently make purchasing decisions based upon an eVehicle’s price/quality attractiveness compared with other traditional petrol/diesel vehicles on the market. It is envisaged that soon (within the next 5 to 10 years) eVehicles will be able to compete with petrol/diesel vehicles on price and quality, thus naturally the market for eVehicles globally and in Belarus is expected to increase in the medium to long term. However, currently

eVehicles are largely behind the traditional petrol/diesel vehicles on price and convenience and also because eVehicles are a relatively new technology with consideration to mass-market sales; their uptake is severely limited without any stimulating factors. The business as usual scenario is that sales will increase very slowly for the next 5 to 10 years until the market becomes naturally competitive in eVehicles favour. This means that if incentives are not pursued now, the scale of potential environmental benefits from carbon emission reductions will be severely reduced in the short to medium term. In addition to the economic market barriers of eVehicles, there is an infrastructure deficiency that needs to be addressed in the charging infrastructure. While the government plans, with some strategic partners, investments in a limited charging network, there are currently no super-fast charging stations installed or planned for immediate deployment and in the absence of the project they are unlikely to be installed over the coming few years. These charging stations have been recently developed and are similar in capability to charging vehicles in a time-frame that nearly equates to petroleum charging stations. Such technology is important for eVehicles to become popular and without movements in this direction, it is possible that the market appetite for eVehicles remains unattractive despite the eVehicle car costs coming down.

b. The **global environmental benefits** of this project are related to the decreased use of fossil energy resources through increased adoption of innovative technologies for GHG emission reduction. In addition, the project aims to popularize e-mobility with a focus on promotion of the new e-vehicle charging infrastructure that is to be financed within this project among other e-mobility promotional activities that will remove barriers to the standardization of e-mobility in Belarus. As a result of the activities of this project, 28,000 Tonnes Direct (290,000,000 MJ equivalent) and 115,000 Tonnes Indirect (1,200,000,000 MJ equivalent) energy and emissions savings shall be achieved through meeting the outcomes and outputs of the project. Savings are specifically achieved with new regulations, including the introduction of quotas on municipal fleets, incentivizing eVehicle use through changes to municipal regulations and the installation of super-fast charging stations. The GEF will invest in superfast charging stations as this is new technology where GEF can make a targeted investment that Belarus-Neft is not ready to invest in currently. It is assumed after the GEF financed pilot project(s); Belarus-Neft will have the skills to procure and install further fast-charging stations or other investors will become interested after seeing these stations in action.

c. The development of the indicative project description summary of the project (for detail, refer to Table B) focuses on several measures to incentivize and popularize eMobility in Belarus including major targeted results for the adoption of a new national policy to promote e-Vehicles, introduction of state vehicle quotas and installation of innovative ultra-fast charging infrastructure. The result framework includes other related outputs that support the project outcomes of: i) Improved policies and regulations to promote increased purchase of electric vehicles, ii) Investment in Fast Charging stations realized, iii) Promotion of eVehicles to help consumers make educated decisions on e-vehicle purchases

d. The incremental cost reasoning of the project is that without GEF support, the Global

Environmental Benefits will not be reached or will be delayed considerably as the eMobility market is currently developing very slowly. The GEF will accelerate eMobility development considerably through investment into innovative technologies and eMobility promotion and supporting legislation development. The majority of **co-financing negotiated** for this project will come from the government's state partner, Belarus-Neft, which has been tasked

(through a government edict) to assist with eVehicle market adoption and is planning to invest in charging infrastructure over the following years. Currently there are 50 charging stations of Level 3 and 75 charging stations of Level 4 installed in Belarus with a total investment of 2,625,000 USD. By the end of 2019 it is planned to install an additional 50 charging stations of Level 3 and 30 charging stations of Level 4 with a total investment of 1,185,000 USD. The total planned equity investment into charging stations scheduled for installation during the project period from 2020/21-2024/5 is 360,000 USD for 80 Level 3 Chargers and 10,944,000 USD for 342 Level 4 chargers, totally 11,304,000USD.. The average cost including installation of the Level 3 charging stations is 4,500 USD, Level 4 – 32,000 USD. During the period from 2026-2030, after expected project completion, Belarus-Neft wishes to install an additional 407 charging stations from which 80 will be Level 3 and 327 will be Level 4 stations. These are not included in the co-financing calculations, as it will occur after project completion. Other co-financiers will mainly be “in-kind” contributions in the Ministries, providing staff and time for assistance on drafting and proposing regulation changes for the project and consulting and assisting through all stages of the project with a Project Management Board that will be especially set up for this project. The Ministries and state agencies involved will include: i) Ministry of Natural Resources and Environmental Protection, ii) Ministry of Energy, iii) Ministry of Transport, iv) Ministry of Industry, and v) Department of Energy Efficiency. There is also collaboration and cofinancing that will come from EU funded UNDP implemented project EU4Climate project (2019 – 2022, 1,6 mln USD for Belarus) which will be working in the energy and transport, sectors parallel to this project.

19. The **innovative nature of this project** is that it is investing in innovative technology related to eMobility, super-fast charging stations are on the cutting edge of new technology worldwide and are completely non-existent currently in Belarus. Also, the project combines changes to regulations with demonstration projects and capacity building so that there is an holistic approach to the promotion of eMobility that is complimentary and involves several partners and co-financiers that allows for a broad impact considering the limited GEF financing available for the project. **M&O costs of the demo projects will be covered by Belarusneft once the project is over.**

20. This **scalability of this project** is that it could be potentially scaled up by replicating local and national government action in the transport sector to additional municipalities within Belarus and also to the Eurasian region. Component 1 of the project is scaleable at both the municipal and the national level. The project would focus on developing municipal incentives for electric mobility in Minsk and Homel, but replications within Belarus could also occur in: a) Brest who developed and implement the concept of the “Simbio-city” located near the border with Poland, b) Viciebsk (already interested in popularization of e-vehicles) located not far from Latvia, d) Municipalities close to Russia - Mahileu, Zlobin or Orsha. Additionally, the super-fast charging stations could be advertised regionally with study tours organized from neighbouring countries/municipalities that do not yet have this technology.

21. The **sustainability of this project** is developed through both the introduction of new policies, legislation, and regulations that include future management of operation and maintenance issues related to the new innovative technology investments and through the capacity building aspect of the project and the production of applicable studies that can be used in the future, including the “lesson’s learned” report and feasibility study that will include a road-map for future super-fast charging stations deployment in Belarus after project completion.

[1] GHG National Inventory Report 2019

[2] Global GHG emissions were estimated at 53,5 GtCO₂e in 2017 by UNEP Emission Gap Report 2017. Available at http://wedocs.unep.org/bitstream/handle/20.500.11822/26895/EGR2018_FullReport_EN.pdf?sequence=1&isAllowed=y

[3] http://www4.unfccc.int/ndcregistry/PublishedDocuments/Belarus%20First/Belarus_INDC_Eng_25.09.2015.pdf

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

Figure 3 Map of Belarus



2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Indigenous Peoples and Local Communities

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

1. The main (key) project partner will be Belarus-Neft, which is a state owned corporation operating mainly in the energy sector, but also managing other non-related smaller businesses in agricultural and other fields. It is a multi-billion dollar organisation with over 25,000 employees. The government has, through an edict, tasked this corporation with financing and managing the installation of a modest size charging station infrastructure throughout Belarus, which is already being implemented. Currently about 125 charging stations are installed.

2. The project will work in close collaboration and form partnerships with key sectoral/line ministries. In the Public Sector, the Government, represented by various Ministries and Universities and Technical Institutes/Departments were identified as being the major stakeholders that will have a say on the direction of e-Mobility and crucial to e-Mobility’s long term success which will need regulatory support.

3. In the private sector, a private bank was discovered that has a loan product for e-vehicles and e-charging stations (BNB). Also a local manufacturing company was visited that produces small 2-seater e-vehicles with parts originating from China - Unison (<https://unison.by/>), the car name is Zotye E200, however the company is not very successful in marketing their vehicles and may not be able to contribute much to the project. All potential stakeholders/partners are included in the below table:

Table 2 Stakeholder engagement

Stakeholder	Mandate	Role in the Project
Ministry of Natural Resources and Environmental Protection	Responsible for development and implementation of national policy in climate change, both in mitigation and adaptation. It is authorized to develop and implement national climate change programmes and national system for GHG emissions reporting and reduction and co-ordinate its implementation with other governmental agencies.	National Implementing Partner of the project: lead and coordinate on all project components, including assistance to engage of the relevant inputs and co-financing from project partners.
Ministry of Economy	In charge of development and implementation of national sustainable development strategy and national SDG framework, which, inter alia, include climate change targets and indicators. It is also the key agency in charge of investment promotion and coordination of international financial and development assistance.	Key partner for Component 1 with respect to improving regulations, and policy on Sustainable Transport.

Ministry of Energy	Responsible for developing and implementing national energy development programmes. Operates national power generation company Belenergo, state company in charge of production, transmission, distribution and sale of electricity.	Key partner in implementing Component 1 of the project with respect to improving regulations and tariff policy on Sustainable Transport, as well as one of the key partners for Component 2 on issuing technical conditions for connecting charging stations (especially super-fast) to the grid.
Ministry of Transport and Communications	Responsible for implementation of state regulation of activities in the field of automobile, city electric transport and metro, development and implementation of the programs in the field of transport activities.	Key partner for Component 1 with respect to improving regulations and policy on Sustainable Transport.
Ministry of Industry	Responsible for development of production and technical forecasts, financial and economic development of industrial sub-sectors and priority industries.	Key partner for Component 1 with respect to improving regulations and policy on Sustainable Transport. One of the key partners for Component 2 with respect to the promotion and stimulation of internal production and sales of e-vehicles, batteries and charging stations.
Department for Energy Efficiency of the State Standardization Committee	Specifically in charge of development and implementation of national policies for energy efficiency and renewable energy, as well as the National Energy Saving Program	Key partner for Component 1 with respect to improving regulations and policy on Sustainable Transport.
Belorusneft	According to the State Programme for development of the state-owned charging network for charging electric vehicles Belorusneft is responsible for construction of the charging stations	Key partner for Component 2 with respect to procurement and installation of the charging stations for e-vehicles. Key partner for Component 3 with respect to promotion and PR-activities for usage of the e-vehicles.
Partner Municipalities	Providing services in municipal government and social (healthcare, education etc.) sphere.	Key partner for Component 3 with promotion of the use of e-vehicles.
Car Dealers	Sellers of eVehicles to the mass market	Key partner for Component 3, involving promotion of eVehicles – exact extent of involvement to be determined during project preparation phase.
<i>EU-funded UNDP-implemented regional EU4Climate project (2019 – 2022, 1,6 mln USD for Belarus)</i>	Support the development and implementation of climate-related policies by the EU Eastern Partnership countries, including Belarus, in order to strengthen the capacity for domestic implementation of the Paris Agreement	Cooperation on project areas that overlap and consultation to project as required.

<p><i>UNDP-GEF “Belarus: Supporting Green Urban Development in Small and Medium-Sized Cities in Belarus” project (2015-2020, 3,09 mln USD)</i></p>	<p>Introduce the concept of green urban development and support for planning and developing green cities and their infrastructure. It should be noted that the whole project of Belarus Green Cities has also policy support components to help the country develop a National Green Urban Development Plan, which covers a range of issues associated with the development of low-carbon and climate-resilient cities.</p>	<p>Cooperation on project areas that overlap and consultation to project as required.</p>
<p><i>UNDP-GEF project “Preparation of the Seventh National Communication for the Implementation of the United Nations Framework Convention on Climate Change and the Third Biennial Report of the Republic of Belarus” (2019-2020, 852,000 USD)</i></p>	<p>This project will provide essential background data on the latest GHG emissions and trends in the Republic of Belarus, as well as help identify gaps as far as MRV system is concerned. It will also update of the national circumstances chapter to consider gender dimension in order to better understand how the different roles of men and women in social and economic circumstances may affect Belarus’s ability to deal with mitigating and adapting to climate change.</p>	<p>Cooperation on project areas that overlap and consultation to project as required.</p>
<p><i>“Supporting the Transition to a green economy in the Republic of Belarus”, funded by the European Union and implemented by the United Nations Development Programme in Belarus, completed December, 31, 2017.</i></p>	<p>Total project budget was 5 mln. Euro. In the frame of the project implementation there were purchased two electric vehicles complete with trailers for carrying passengers for the Radziwill palace and park ensemble (Nesvizh district).</p>	<p>Cooperation on project areas that overlap and consultation with project beneficiaries as required.</p>

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

During the Project Preparation Phase, the PPG should include consultation from a gender expert to determine the extent of any gender equality issues as also identified in the Pre-SESP and explained in more detail there. The project needs to ensure that gender issues in eMobility are addressed. The identified issues should be incorporated into the results framework. The project should also collect sufficient data on women’s participation during the project lifetime with results included in the lesson’s learned report.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes

closing gender gaps in access to and control over natural resources;

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women.

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

State owned companies are the main partners, however, the private sector, including banks and car dealers are likely to be involved with financing/selling/marketing eVehicles when the eVehicles become more affordable after the tax changes envisioned in this project. Also, private investors will be approached during the pilot project of the super-fast charging stations to gauge the private sector's interest in investing in such infrastructure in the future. More work will be carried out during the PPG phase to explore how this project can work more closely with the private sector.

5. Risks

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

The root causes of Belarus not being able to invest more in the eMobility relate primarily to the increased cost of the electric vehicles, regulatory/policy barriers, and a lack of awareness of the environmental benefits and long term cost savings, as well as the risk that international best practices are not implemented. The risks of the project are assessed in the following table and root causes are explained:

Table 3 Risk Assessment Log with Means of Mitigation

Risk	Level	Description and Mitigation
Risk of tax changes not being accepted by EEU	Moderate	Because Belarus is part of wider market cooperation union, other partners may object to the proposals of Belarus for protectionist or other economic reasons. Belarus needs to put forth its proposal with strong justification showing benefits to the whole market of which they are joined.
Risk of citizens not being afford to purchase to eVehicles	Low	Even with the abolishment of customs and other duties for eVehicles, the eVehicles may still be too expensive for many potential customers, the government could consider additional rebate schemes to assist in the uptake of these vehicles. These rebate schemes could be designed to be in line with other rebate schemes, currently in place in EU countries, that help consumers to afford electric vehicles. This helps to address the root cause that electric cars remain expensive and unaffordable for a large majority of citizens in the Republic of Belarus.
Risk of State opposition to eVehicle quotas	Low	There is a risk that the state may not wish to impose eVehicle quotas on state organisations because of negative feedback from state organisations. This can be mitigated by introducing a very low quota in the first stage i.e. if there is resistance to a 5% quota – reducing it to 3% or lower and then slowly increasing it later.
Risk of Injury from Super-Fast charging station use	Low	Charging stations have been in use now for some time and accidents are very rare, there are many safety standards that govern their manufacture, nevertheless, it is important that safety and usage signs be posted around the stations and the owners are trained in their use and maintenance and inspection (or another such agency put in charge of monitoring all stations). This risk will be assessed in more detail through the Environmental and Social Framework.
Climate Change Flooding Risk Flooding Car Chargers and Causing Flood Damage	Low	In the case where Climate Change causes more flooding, if charging stations are placed in an area that does not currently flood but could flood in the future, then potentially the charging station should be relocated to a safer area. If climate change flood maps have been prepared for Belarus, these should be consulted.
Risk of Environmental problems occurring with disposal of electric vehicle batteries	Moderate	Currently, disposal of eVehicle batteries is an environmental concern, battery re-cycling is at an early stage. Although this project is not involved in purchasing or subsidizing eVehicles, the project still promotes their use and purchase, so is indirectly involved in this issue. This is a global problem and Belarus should join efforts with the global community to work towards mitigating this risk.
Risk of Charging Stations not being sited correctly causing cultural heritage or other land use conflicts.	Low	While there is a possibility for fast-charging stations to potentially be installed on or near a cultural heritage site, they will most likely be installed at existing petrol stations or other existing commercial facilities on major highways (not in city centers) which will have low likelihood of being cultural sites. Also, there is some potential for poorer communities to be ignored in the consultation process for siting of charging stations, however the stations are not likely to be located on new land and will most likely be on existing commercial land on highways far away from large populations and on non-controversial sites.

Risk of Gender inequality	Moderate	There is a possibility that current mobility trends for private vehicles are not gender balanced and this could continue with eVehicle uptake. In the Project Preparation phase, the PPG should consider a review of the current vehicle market and vehicle ownership and trends in vehicle purchases and ownership to determine if there is any gender imbalance in owning/sharing use of private vehicles and its impact to accessing activities by women. In the case of any identified impact, a mitigation strategy should be developed. Note: although this project is not involved in purchasing eVehicles, through its promotion of eVehicles it is indirectly involved.
Risk of not implementing international best practices with regards to eMobility	Moderate	The project will cooperate closely with the UNEP led global programme to support countries with the shift to eMobility, including making funds available during the PPG phase and during full project implementation to make sure that the project is well coordinated with the UNEP led, GEF funded, global initiative.

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

1. The project will be run under the NIM or National Implementation Modality with the Ministry of Natural Resources and Environment as the Executing Agency and the Belarusneft as the Main (Key) partner. Under the NIM management, the day to day management of the project will be carried out by the Ministry of Natural Resources and Environment who will appoint a project manager and a project assistant. In addition, the EU4 Climate project, managed out of the UNDP Istanbul Regional Hub, includes some \$1.6 million USD for Belarus. This project will also coordinate closely with the EU4 climate project. In addition, the project will make funding available in the project budget to help ensure to coordinate closely with the UNEP led GEF Global Programme to Support Countries with the shift to eMobility being developed under the GEF-7. While this project is not part of the global programme, efforts will be made, including making sure that funds are made available to enhance coordination during the PPG phase, to ensure that the activities of the project are coordinated with the global program and that the project can participate in the relevant activities and events of the global program.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

1. This project is consistent with National Priorities as indicated in the following table and further explained below:

Table 4 National Priorities Consistency

Strategy Document	Compliance
National Bio Strategy Action Plan (NBSAP)	No or N/A
CBD National Report	No or N/A
Cartagena Protocol National Report	No or N/A
Nagoya Protocol National Report	No or N/A
UNFCCC National Communications (NC)	Yes – see below
UNFCCC Biennial Update Report (BUR)	Yes – see below
UNFCCC Nationally Determined Contribution	Yes – see below
UNFCCC Technology Needs Assessment	No or N/A
UNCCD Reporting	No or N/A
ASGM National Action Plan (ASGM NAP)	No or N/A
Minamata Initial Assessment (MIA)	No or N/A
Stockholm National Implementation Plan (NIP)	No or N/A
Stockholm National Implementation Plan Update	No or N/A
National Adaptation Programme of Action Update	No or N/A
Others	Yes – see below

2. This project aims to support further development of electric mobility in Belarus, which will in turn contribute to meeting some of the objectives in the Paris Agreement, which requires a Long-Term Development Strategy for the Republic of Belarus up to 2050, the main objective of which is to achieve a balance between emissions from sources and removals by sinks of greenhouse gases by 2050. In effect, eMobility reduces emissions by substituting electrical vehicles for petrol vehicles. The carbon savings are achieved because eVehicles will make use of predominantly nuclear power, which is less carbon intensive than fossil fuels.

3. This project will also indirectly contribute to meeting many of Belarus's priority measures for climate actions according to relevant policy documents and reports that have been internationally communicated. These include:

a) the Sixth National Communication (NC), submitted to the UNFCCC in 2013 and revised in 2015,

b) the Biennial Update Report (BUR) to the UNFCCC in 2015,

c) other domestic legal and policy documents as follows:

i) the Energy Security Concept,

ii) the Law on Renewable Energy Sources,

iii) the Law on Energy Savings, and

iv) the National Strategy for Sustainable Development until 2030.

4. Finally, the 7th National Communication (NC) is currently under preparation together with the National Strategy for Sustainable Development of the Republic of Belarus to 2035. These strategies are required to include frameworks for ensuring low-carbon economic growth of the country, including contributions from eMobility.

8. Knowledge Management

Outline the Knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

1. The Project will follow the UNDP guidelines for project management and monitoring, including midterm and final evaluations to ensure that the overall project is properly managed and documentation is properly recorded. The project will also produce information for dissemination and potential applications that will be used beyond the project term and the project will create a website that can be transferred to the Ministry of Natural Resources and Environmental Protection and/or Belarus-neft by the end of the project. The project will also produce a lessons learned study at the end of the project. All documents will be kept by either the UNDP or Ministry of Environment (or both) and will be widely shared among all stakeholders as necessary and may be placed on the project website for public dissemination.

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Ms. Iya MALKINA	First Deputy Minister, GEF Operational Focal Point	Ministry of Natural Resources and Environmental Protection	4/12/2019

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place

