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# BACKGROUND INFORMATION

## Partner country

Republic of North Macedonia

## Contracting authority

Municipality of Resen

Square Car Samoil no. 20

6310 Resen

## Country background

The cross-border cooperation programme Greece – North Macedonia supports regional cooperation between Greece and North Macedonia. The Programme's overall objective is to enhance territorial cohesion by improving living standards and employment opportunities holding respect to the environment and by using the natural resources for the upgrading of the tourism products.

The project „Integration of Green Transport in Cities - Green Inter-e-Mobility “ is supported by the cross-border programme “Interreg IPA Cross-border Cooperation Programme Greece- Republic of North Macedonia 2014-2020".

Pelagonia Region and Municipality of Resen offer a great number of touristic attractions and major inland and water tourist destinations due to its high-value natural resources. The solar availability in the region is indicated for high performance of energy supply through PV panels. Also, residents, especially disabled or elderly ones, face difficulties in their daily transport, while students have to use conventional public transport or taxis for their transport to school.

The overall project’s objective is to design and apply an energy-efficient, regional intelligent transportation system with innovative solar-energy charging-stations for e-vehicles in all four Municipalities.

The main project outputs include the promotion of the environmental conservation of the area (through an integrated solution for reducing the carbon footprint of road facilities and transport) and the protection of its natural beauty, the enhancement of the tourist stream towards the cross-border area and of the cross-border cultural and sports relations, through the establishment of the transnational Bitola-Florina tourist route, and the facilitation of sportsmen and students in their daily transport and residents (elderly, disabled, distant-residents) in their daily on-demand transport in all four Municipalities, while the optimal route scheduling and realization of their transport by e-vehicles will greatly decrease their transportation expenses through a 20-year horizon.

Through the Cross-Border approach, including the partner’s cooperation during the development and operation phases, the Municipalities will benefit by the mutual exchange of know-how and experiences among the cross-border actors and end-users of the e-vehicles. Moreover, the public, through the partners’ joint awareness initiatives for green mobility, and by making use of this new innovative technology, will come closer to environmental actions and ideas. Also, the establishment of the cross-border electric minibus route between Florina and Bitola will be combined with other sport and tourist activities and strengthen the relations between the two countries’ population.

The project’s added value is the environmental conservation of the cross-border area, the region’s touristic promotion through transnational actions, the enhancement of the cross-border relations and the facilitation of the area’s residents in their daily transport, through the use of innovative technologies towards green transportation.

EE is a key priority within the EU Strategy, and this translates into common EU policies for the Member States, including those addressing energy-efficiency. To accelerate the achievement of strategic targets, an integrated approach is needed with coordination between EU/national/regional/local energy policies.

There is a strong background in the cooperation between all the partners, since they have all signed Memorandum of Understanding during previous projects. Therefore, the Green Inter-e-mobility project is the implementation of their commitment to cooperate and apply synergetic actions.. Also there is existing experience of successful cooperation between all the partners in the energy efficiency and transportation fields. The region offer a great number of touristic attractions and therefore, an intelligent network of electric mini-buses will bring added-value to these attractions. Additionally, the cross-border interconnection of these touristic sites will be enhanced by a regular cross-border route of a “touristic electric mini-bus”. Such an electric mini-bus interconnection can facilitate tourists sportsmen and the local population to identify many common characteristics between the two regions. Replacing the current transport modes with more energy-efficient ones, within a regional intelligent transportation system, will support the efficient realization of both the tourist promotion of the area, the sportsmen and student’s daily transportation. The new system will also promote the environmental conservation of the area and the protection of its natural beauty. Moreover, due to the heavy winter periods, residents in this region, and especially elderly, disabled, distant-residents, face great difficulties in their daily transport. This project faces this challenge and facilitates residents in these Municipalities (MUNIs) with the on-demand use of utility electric vehicles (e-vehicles). Furthermore, the solar availability in the region, which is indicated for high performance of energy supply through photovoltaic (PV) panels, could be exploited for replacing the conventional energy used by current transport, with renewable energy. The project is compatible with the broad EU energy policy context such as Climate-Energy packages, Energy Union and decarbonisation of transport, since it creates synergies between Renewable Energy Sources and transport users.

## Current situation in the sector

Municipality of Resen is responsible for developing/implementing energy-efficiency (EE) policies and action plans and have capacities to influence public policies in their area of activity directly. Overall all governance levels are represented (local/regional/national) ensuring wide applicability of project outcomes and uptake at all policy levels. The responsibility of the municipality is to increase the insufficient capacities of public administrations to develop reliable, cost-effective EE action plans.

The Municipality of Resen is a unit of local self-governmentr with the capacity to influence local/regional/national policies. It has 85 staff, and 5 of which dedicated to national/EU projects implementation.

With this project Municipality of Resen will influence in development of the infrastructure for using solar energy for charging e- vehicles, also with promotional activities and the pilot installations there will be development of the market for e vehicles and solar charging stations

The project’s added value is the environmental conservation of the cross-border area, the region’s touristic promotion through transnational actions, the enhancement of the cross-border relations and the facilitation of the area’s residents in their daily transport, through the use of innovative technologies towards green transportation.

Policy uptake and community engagement. The direct involvement of partners in the project who have a multiplier role will ensure wide dissemination-awareness raising of the relevant target groups.

## Related programmes and other donor activities

There is a strong background in the cooperation between all the partners, since they have all signed Memorandum of Understanding during previous projects. Therefore, the Green Inter-e-mobility project is the implementation of their commitment to cooperate and apply synergetic actions.. Also there is existing experience of successful cooperation between all the partners in the energy efficiency and transportation fields. The region offer a great number of touristic attractions and therefore, an intelligent network of electric mini-buses will bring added-value to these attractions. Additionally, the cross-border interconnection of these touristic sites will be enhanced by a regular cross-border route of a “touristic electric mini-bus”. Such an electric mini-bus interconnection can facilitate tourists sportsmen and the local population to identify many common characteristics between the two regions.

The Green Inter-e-mobility project directly addresses the topics of the Work programme “10. Secure, Clean and Efficient Energy”. More specifically, the project is compatible with the broad EU and national energy policy context such as Climate-Energy packages and it contributes to the following expected impacts:

• The EU power network will be capable of integrating large share of renewable exceeding 50% by 2030, in particular variable energy sources.

• Creation of synergies with transport users (e.g. services to the grid with smart charging) / support the decarbonisation of transport.

Additionally, the project contributes to the regional and local strategy on efficient transport of students, public servants and disabled people.

A number of donors have supported environmental and energy sector in relation to improvement of the Energy Efficiency and reduction of GHG emissions by the donors, including the EU, World Bank Group, the Swiss Agency for Development and Cooperation and the UNDP.

# OBJECTIVES & EXPECTED OUTPUTS

## Overall objective

The overall objective (Impact) to which this action contributes is :

The main project's objective is to design and apply an energy-efficient, regional intelligent transportation system-ITS which will support the efficient realization of both the tourist promotion of the cross-border area, the student’s daily transport and the facilitation of residents in their daily transport.

## Specific objective(s)

## The specific objectives (Outcomes) of this contract are as follows:

 (a)The added value of the area's touristic sites through the e-minibuses routes.

(b)The enhancement of the cross-border cultural relations through the route connecting Bitola-Florina.

(c)An optimal route scheduling in coordination with the design & implementation of PV charging stations for minibuses.-Programme’s object. : Improving cross-border road access & mobility with targeted interventions of small scale infrastructure

(d)The realization of the ITS that will facilitate both tourists, residents’ (elderly, disabled, distant-residents) and students’ daily transportation. Especially for accessibility of disabled people, a utility e-vehicle and a relative smart phone application is predicted.-Progr.obj. : ICT systems & equipment to improve check point services & facilities

(e)The decarbonisation of transport and the support to the electricity grid.-Progr.obj.: Integrated solutions for reducing the carbon footprint of road facilities & transport in cross-border area

(f)Cooperation between partners during the optimal route studies, development & operation phases.

(g)Public awareness about the integration of e-vehicles fuelled by the sun in cities, and communication & dissemination of the project results to national, regional & local authorities to promote green transport.-Progr.obj.: Small scale investments in energy efficiency, in check point facilities & public buildings of cross-border area, including joint awareness initiatives for energy efficiency.

## Expected outputs to be achieved by the contractor

The expected outputs of this contract are as follows:

The purposes of this contract are as follows:

**Six-month pilot** use and operation of the whole system of electric vehicles and charging-stations. Implementation of the pilot use and operation of the whole system of electric vehicles and charging-station including communication system that is very important for establishing functional system for six months. There will have to be appropriate technical estimations in order to compare green transport with electric vehicles that use solar charging station in Resen established with this project comparing with other vehicles that use other type of fuel.

The expected results by the contractor are

* Established functional system during Six-month pilot use and operation of the whole system of electric vehicles and charging-station communication system for Resen Municipality
* Operating the whole system for four months system of electric vehicles and charging-station communication system for Resen Municipality
* Prepared technical estimation in order to compare green transport with electric vehicles that use solar charging station in Resen with other vehicles that use other type of fuel will cover six months period of usage of the whole system.
* Prepared full report for usage and findings during the period of 6( six) usage of the whole system

# ASSUMPTIONS & RISKS

## Assumptions underlying the project

## • Good cooperation between all parties involved in the project

• Constant and timely support from the Project team;

## Risks

* Low level of communication among the project stakeholders

• Failure to comply with the respective deadlines for completion and launching of the tender procedures;

# SCOPE OF THE WORK

## General

### Description of the assignment

Implementation of the six months pilot use and operation of the whole system of electric vehicles and charging-station including communication system that is very important for establishing functional system. Training for using the whole system for the drivers will be done by the contractor, also as a part of this contract is licence issuance, car consumables and support office for municipality of Resen.

The contractor will have to organize (to put in function) the transport system that includes e-vehicles, charging station, communication system, routes and also will have to provide driver staff training, registration and casco insurance for electric combe with 8 + 1 seat, auto liability insurance including passengers.

**The period of operation the whole system by the Contractor should be 4 ( four ) months.**

Finally the contractor will have to make appropriate technical estimations in order to compare green transport with electric vehicles that use solar charging station in Resen established with this project comparing with other vehicles that use other types of fuel.

**The period covered by technical estimation and the report of benefits from using the PV charging station will be 6 (six) months.**

The expert will participate to the national conference with presentation.

Those activities must be in accordance with the project Green Inter e Mobility (defined target groups and routes) and in accordance with the low in Republic of North Macedonia

As a part of the project Green Inter e Mobility municipality of Resen will provide two electric vehicles (one of which is electric combe with 8 + 1 seat while the other one is utility vehicle with 5 seats), also municipality of Resen as a part of the project Green Inter e Mobility is in the procedure for construction of PV charging station and also municipality of Resen as a part of the project Green Inter e Mobility will install communication system. So, for the external expertise and services for “Six-month pilot use and operation of the whole system of electric vehicles and charging-stations” the contractor will have to put the transport system in appropriate functionality according the project Green Inter e Mobility. The contractor that will organize six months pilot use will have to provide: vehicle’s registration for one electrical electric combe with 8 + 1 seat, casco insurance for electric combe with 8 + 1 seat, auto liability insurance including passengers, training for drivers, transport organization activities, expert analisys etc. Municipality of Resen will have to provide drivers and legal form for implementation of this six months pilot use for the whole system.

The system will be consisted of two electric vehicles, PV charging station and communication system, also for this tender the important thing is study for the routes for e vehicles that is published in this tender document in order to help to the tenderer to prepare better tender offer.

### Geographical area to be covered

Municipality of Resen

### Target groups

Local citizens, sportsmen, students, tourist’s elderly, disabled and distant-residents etc.

## Specific work

Six-month pilot use and operation of the whole system of electric vehicles and charging-stations

Implementation of the six months pilot use and operation of the whole system of electric vehicles and charging-station including communication system that is very important for establishing functional system. Training for using the whole system for the drivers will be done by the contractor, also as a part of this contract is licence issuance, car consumables and support office for municipality of Resen.

The contractor will have to organize (to put in function) the transport system that includes e-vehicles, charging station, communication system, routes and also will have to provide driver staff training, registration and casco insurance for electric combe with 8 + 1 seat, auto liability insurance including passengers.

**The period of operation the whole system by the Contractor should be 4 ( four ) months.**

Finally the contractor will have to make appropriate technical estimations in order to compare green transport with electric vehicles that use solar charging station in Resen established with this project comparing with other vehicles that use other types of fuel.

**The period covered by technical estimation and the report of benefits from using the PV charging station will be 6 (six) months.**

The expert will participate to the national conference with presentation.

Those activities must be in accordance with the project Green Inter e Mobility (defined target groups and routes) and in accordance with the low in Republic of North Macedonia

As a part of the project Green Inter e Mobility municipality of Resen will provide two electric vehicles (one of which is electric combe with 8 + 1 seat while the other one is utility vehicle with 5 seats), also municipality of Resen as a part of the project Green Inter e Mobility is in the procedure for construction of PV charging station and also municipality of Resen as a part of the project Green Inter e Mobility will install communication system. So, for the external expertise and services for “Six-month pilot use and operation of the whole system of electric vehicles and charging-stations” the contractor will have to put the transport system in appropriate functionality according the project Green Inter e Mobility. The contractor that will organize six months pilot use will have to provide: vehicle’s registration, casco insurance for both electric vehicles, auto liability insurance including passengers, training for drivers, transport organization activities, expert analisys etc. Municipality of Resen will have to provide drivers and legal form for implementation of this six months pilot use for the whole system.

The system will be consisted of two electric vehicles, PV charging station and communication system, also for this tender the important thing is study for the routes for e vehicles that is published in this tender document in order to help to the tenderer to prepare better tender offer.

## Project management

### Responsible body

The Contracting Authority for the contract is Municipality of Resen

### Management structure

The Contracting Authority is Municipality of Resen , the Republic of North Macedonia and in that capacity, it is responsible for launching the service tender procedure, sign the service contract, authorize payments to the contractor and handle the financial management and control during project implementation.

The project management structure is consisting of a project manager and team for project implementation, from the Municipality of Resen

### Facilities to be provided by the contracting authority and/or other parties

The contracting authority has no obligations to provide any facilities

# LOGISTICS AND TIMING

## Location

Municipality of Resen, Pelagonia Region, Programme region

## Start date & period of implementation of tasks

From the date when the contract will be signed until the end of the project Green Inter e Mobility. Please see Articles 19.1 and 19.2 of the special conditions for the actual start date and period of implementation.

# REQUIREMENTS

## Staff

Note that civil servants and other staff of the public administration of the partner country, or of international/regional organisations based in the country, shall only be approved to work as experts if well justified. The justification should be submitted with the tender and shall include information on the added value the expert will bring as well as proof that the expert is seconded or on personal leave.

### Key experts

**Key expert 1: Team leader**

**Qualifications and skills**

University degree (bachelor, master or PhD) related to technical sciences in the fields related to the contract, and in the absence of a degree as required in the previous paragraph, the expert should prove that he / she has competence in the field related to this activity based on previous similar tasks for at least 3 years.

**General professional experience**

Minimum of three years of professional experience in fields related to these activities.

**Specific professional experience**

From the expert is required to have performed minimum one expert services in an area related to this contract (expertise or organization of transport or similar)

All experts must be independent and free from conflicts of interest in the responsibilities they take on.

### Other experts, support staff & backstopping

CVs for experts other than the key experts should not be submitted in the tender but the tenderer will have to demonstrate in their offer that they have access to experts with the required profiles. The contractor shall select and hire other experts as required according to the needs. The selection procedures used by the contractor to select these other experts shall be transparent, and shall be based on pre-defined criteria, including professional qualifications, language skills and work experience.

The costs for backstopping and support staff, as needed, are considered to be included in the tenderer's financial offer.

## Office accommodation

Office accommodation for each expert working on the contract is to be provided by the contractor.

## Facilities to be provided by the contractor

The contractor shall ensure that experts are adequately supported and equipped. In particular it must ensure that there is sufficient administrative, secretarial and interpreting provision to enable experts to concentrate on their primary responsibilities. It must also transfer funds as necessary to support their work under the contract and to ensure that its employees are paid regularly and in a timely fashion.

## Equipment

**No** equipment is to be purchased on behalf of the contracting authority / partner country as part of this service contract or transferred to the contracting authority / partner country at the end of this contract. Any equipment related to this contract which is to be acquired by the partner country must be purchased by means of a separate supply tender procedure.

# REPORTS

## Reporting requirements

The contractor will submit the following reports in English in one original and two copies:

Interim and Final Report

## Submission and approval of reports

The report referred to above must be submitted to the project manager identified in the contract. The project manager is responsible for approving the reports.

# MONITORING AND EVALUATION

## Definition of indicators

All activities for monitoring and evaluation, which will be a part of this Contract will be realized according to the planned time and measures of progress towards expected results.

## Special requirements

n/a