

SWISS-ROMANIAN COOPERATION PROGRAMME

07.05.2019

On the 7th of September 2010, the Government of Romania and the Swiss Federal Council signed, in Berne, the "Framework Agreement concerning the implementation of the Swiss-Romanian Cooperation Programme to reduce economic and social disparities within the enlarged European Union. This Agreement was approved through the Government Decision no 1065/2010, published in the Official Gazette of Romania no 741/2010.

The budget of Focus Area 4 is 49,747 thousand Swiss francs (CHF).

Implementation of the Programme is until the 7th of September 2019.

The payment period within the Programme is until the 7th of December 2019, 10 years respectively, beginning on the 7th of December 2009, the date of approval of the contribution by the Swiss Parliament.

The Framework Agreement contains the following focus areas :

1. "Security";
2. "Health Reforms";
3. "Reforms on civil society and the inclusion of Roma and other vulnerable groups";
- 4. "Improvement of the environment";**
5. "Improving the business environment and access to finance for SMEs";
6. "Improving regulation in the financial sector and strengthening markets and financial institutions";
7. "Developing the private sector and promoting the export of SMEs and / or promoting standards";
8. "Vocational Scholarships, Research and Vocational Training";
9. "Enhancing Partnership and Supporting Experts".

Within the Focus Area 4 of the Swiss-Romanian Cooperation Programme the following projects of Suceava Municipality are financed :

Project: „Modern and efficient public lighting management in Suceava Municipality”

Total budget of the project: 6,731,149 CHF

Swiss grant: 5,238,108 CHF

Signing date of the Project Agreement : 02.04.2015

Implementation period: 02.04.2015 – 07.09.2019

Activities :

- modernization of the public lighting on the entire area of Suceava Municipality (except for the area of the public lighting system modernized through the project "Modernization of the public lighting on the main road artery in Suceava")
- total number of luminaries replaced: 4037
- Contractor: Association between SC FLASH LIGHTING SERVICES SA and SC LOIAL IMPEX SRL
- Value: 13,193,960.83 RON without VAT
- Negotiation contract with the Association between SC FLASH LIGHTING SERVICES SA and SC LOIAL IMPEX SRL (for an additional number of 274 luminaries).

- Value: 814,395.03 RON without VAT.

TOTAL NUMBER OF LUMINARIES REPLACED WITHIN THE TWO CONTRACTS: 4311
 Also: 4311 junction boxes, 38 zonal devices, 4311 local devices, 1 telemanagement system.

Benefits of project implementation:

Year/ Indicator	2016	2017	2018
Active energy (Mwh)	3.774,74	3.210,16	2.084,93
Reactive energy (Mwh)	3.114,40	1.665,83	352,47
Electricity value (RON/year)	2.712.843,08	1.913.996,99	1.162.604,91

Electricity consumption savings:

Year 1 = 2.013,15 Mwh

Year 2 = 2.438,59 Mwh

Total electricity consumption savings : 4.451,74 Mwh

Electricity savings (RON) 2016 vs 2018 : 1.550.238,17 RON

Reduction of CO2 emissions: 4.451.740 Kw/h x 287,11 g CO2/Kwh = 1.278.139,07 g CO2 (1,278 t CO2).

Monthly reporting :

	January 2016	January 2017	January 2018	January 2019
Active energy (Mwh)	461,69	443,52	307,03	224,91
Reactive energy (Mwh)	347,68	286,41	77,83	23,59
Value (RON/month)	301.587,61	271.428,37	175.125,21	139.142,01

- Estimated life of the new luminaries: 100,000 hours
- Warranty: 5 years
- Using the telemanagement system of public lighting will allow: other reductions in electricity consumption by programmed reduction of the luminous intensity in set intervals (e.g. 2-5 a.m.) to 75% of the maximum operating intensity; real-time identification of non-functional luminaries and implicitly correction of nonconformities;

Savings have been recorded in the project following the conclusion of the contracts. On 21.08.2018 the supply contract for replacement of classical lighting units with LED lighting units in the educational units of Suceava Municipality” was signed (9221 LED lighting devices), related to the additional works approved by the Swiss partners.

The implementation of the project will reduce electricity consumption by using LED devices, reducing pollutant emissions, substantially improving the characteristics of lighting.

The duration of the supply and execution contract is 12 months starting August 21, 2018. A total of 9221 LED lighting devices will be installed in 21 educational units in Suceava Municipality. The value of the contract for the supply and execution of works is 2,620,251.07 RON without VAT.

Educational units:

1. Technical College Al.I. Cuza
2. Art College Ciprian Porumbescu
3. Technical College of Food Industry
4. Technical College Samuil Isopescu
5. National College Stefan cel Mare
6. National College of Computer Science Spiru Haret
7. National College Mihai Eminescu
8. National College Petru Rares
9. Technical College Petru Musat
10. School Health– Building A and Building B
11. Economics College Dimitrie Cantemir
12. Secondary School classes I-VIII no. 1
13. Secondary School classes I-VIII no 3
14. Secondary School classes I-VIII no 4
15. Secondary School classes I-VIII no 5
16. Secondary School classes I-VIII no 6
17. Secondary School classes I-VIII no 7
18. Secondary School classes I-VIII no 8
19. Secondary School classes I-VIII no 9
20. Secondary School classes I-VIII no 10
21. Secondary School classes I-VIII no 11

The total number of LED lighting units installed until the beginning of April 2019 : 6327, in a number of 16 educational units.

Reimbursement stage: the beneficiary has been reimbursed the sum of 13,541,014.97 lei (3,215,094.84 CHF) for seven payment claims.

Project: „Electromobility – Electric vehicles for a green municipality”

Total budget of the project: 2,773,161 CHF

Swiss grant: 2,039,100 CHF

Signing date of the Project Agreement: 30.07.2015

Implementation period: 30.07.2015 – 07.09.2019

Activities:

Execution of works, purchasing and installing standard and fast charging stations

Installing the charging infrastructure for the electric vehicles:

- 14 standard charging stations
- 14 fast charging stations
- 56 parking lots for the electric vehicles (near the charging stations)
- 1 dispatcher (server dispatcher, gprs connection - charging points, operator interface - 30 cards), fast charging points, power consumption management at the points of charging of electric vehicles

Standard charging stations: 7.2 KW AC Connector Type 2 (European Standard) 32 A, 50/60 Hz. 230V

Charging time – 8 hours – depending on the battery capacity of the electric vehicle

Fast charging stations: 22 kW AC, Connector Type 2 (European Standard) 32 A, 50/60 Hz, 400V

Charging time – 2 hours – depending on the battery capacity of the electric vehicle

Supply of electric vehicles

Purchase of electric vehicles for Suceava Municipality:

- 11 electric vehicles (Peugeot iON – price 92655 RON without VAT / piece)
- 2 electric vans (Peugeot Partner – price 157656 RON without VAT / piece)
- 1 utility vehicle – electric sweeper (GREEN MACHINES 500ZE: 832.000 RON without VAT)
- 1 utility vehicle – electric tanker (PICK-UP GASTONE : 275.000 RON without VAT)

Estimated value of electricity / conventional fuel consumption:

1 electric vehicle Peugeot iON - 12, 6 kWh/100 km x 0, 46 RON/ KW= 5,8 RON

1 classic car (gasoline) - 7,5 l/100 km x 5,6 RON/l = 42 RON

Economy: 36,2 RON /100 km

Annual reporting:

April 2018- April 2019: number of kilometers traveled by the electric vehicles: 45.743 km.

Energy consumption EV = 12,6 Kwh/100 x457,43 = 5.763,6 Kw x 0,52 RON = 2997 RON

Classic car: 7,5 l/100km x 457,43 = 3430,73 l x 5,8 RON/l = 19.898 RON

Economy RON = 16.901 RON/year

CO2 emissions: classic car vs. electric vehicle:

Classic car - gasoline			
Traveled distance, km	Specific value CO2 emissions, g / km	Total CO2 emissions, g	Total CO2 emissions, tones
45743	130	5946590	5.947

Electric car							
Traveled distance, km	Battery capacity, kW * h	Autonomy, km	Specific electricity consumption, kW * h / km	Total electricity consumption, kW * h	Specific emissions of CO2, electricity on national level , 2017, g/kW*h	Total CO2 emissions, g	Total CO2 emissions, tones
45743	16	127	0.126	5762.89	314.52	1812547	1.813

Reduction of CO2 emissions tones = 4.143

The charging stations can be used by any private person or public institution after a charging card has been obtained in advance.

In order to obtain the charging card, the owner of an electric car must present himself at the headquarters of Suceava City Hall, 3rd floor, room 32, with: the identity card and the car registration card showing that it is an electric vehicle.

The owner will also receive: a list of charging station locations, charging instructions and a parking card to be displayed in the vehicle when the parking space reserved for electric vehicles is occupied. Up to now, 14 charging cards have been handed over.

The electronic charging station management system provides the possibility to identify the used card (and, by default, the type of vehicle receiving the charging), the stationary time, the amount of energy consumed, the operating parameters of the charging station.

Charging stations will also be used for the small low capacity electric buses, purchased as a result of savings resulting from public procurement procedures.

Supply of electric bikes and the charging infrastructure

Purchase of 10 electric bikes and the charging system (equipped with photovoltaic panels)

Value of the contract : 586.996,20 RON without VAT

- 10 electric bikes : 101.999,51 RON without VAT (1 piece = 10.199,51 RON without VAT)
- Electric bicycle charging station: 312.981,62 RON without VAT
- Photovoltaic panels: 81.899,93 RON without VAT
- Totem: Electric bicycle charging point: 9.000,09 RON without VAT
- Construction works : 71.701,19 RON without VAT
- Installation of electrical equipment - exterior fittings: 9.413,86 RON without VAT

Following the conclusion of the contracts, savings were recorded in the project. On 31.10.2018 the contract for the provision of small capacity electric buses (5 small electric buses for public transport in Suceava municipality) was concluded for additional activities approved by the Swiss partners.

Value of the contract : 4,700,000 RON without VAT

Price of the bus/piece: 940,000 RON without VAT

The main features of the buses are:

- Small, non-articulated low-capacity buses with a minimum of 2 axis and a minimum of 1 passenger door, designed and built by the manufacturer for the transport of passengers on seats and standing;
- Equipped with an electric motor (fully electric motor) powered by its own batteries;
- Autonomy of the bus is 150 km with full charge of the battery;
- The charging system is compatible with the standard charging stations in Suceava Municipality;
- Minimum capacity for 15 passengers (calculated for a maximum load of 6 passengers / m²), out of which at least 8 on seats
- Warranty offered for the battery: minimum 24 months

Reimbursement stage: the beneficiary has been reimbursed the sum of 3,122,237.97 lei (742,647.17 CHF) for seven payment claims.