



This project is funded
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CES-MED

SECAP – Greater Irbid Municipality

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Vision Of GREATER Irbid Municipality

A Municipality that is economically developed ,sustained and culturally preserved to invest the sectors of agriculture, industry and tourism and that stimulates entrepreneurship, empowerment and sustainability for purposes of employment ,building the capacities of individuals, and improving the quality of life of all community groups at present and in the future, in cooperation with local and international partners.



Main Purposes:

- To enable the municipality to prepare, finance and implement projects considered and priority in the field of sustainable energy, under the supervision and guidance of the State (alternative and renewable energy, energy efficiency and applications in different fields: water and water harvesting, transportation, housing, waste ...)
- Rationalization of energy consumption, which reflects positively on consumption rates and the local economy
- Providing a healthy living environment and a better life for the population
- Energy conservation policy is promoted through energy saving practices such as renewable energy use and energy efficiency measures to reduce carbon dioxide emissions. As well as increasing the efficiency of water and waste management and the development of environmentally friendly public transportation systems.

SECTOR	CO2 Missions
Municipal buildings	841
Street Lighting	15470
Residential Buildings	324622
Tertiary buildings	371210
TOTAL	712143

Actions	Investment Cost (JD)
Street Lighting	16,129,370
Construction of multi-story parking lot	1,750,000
Shuttle bus	600,000
PV Installation	12,100,000
Smart Municipal Services	1,000,000
TOTAL (Cost in Million JD)	31.6

Please elaborate on required Financing for Action Fiches Projects

1- Establishment of a 16 MW Solar/Photovoltaic Cell Station

Background

Greater Irbid Municipality suffers from the burden of its energy bill increase that reached JOD 4 million per year due to rising prices for the fuels used and expansion of the Greater Irbid Municipality zoned area.

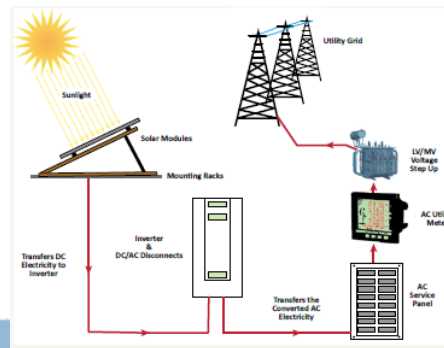
The total cost is estimated at 12100000 JOD, Saving is about 31162 MWh, The GHG reduction is approximately 20224t CO2.

Description of the action

Establishing a power station using photovoltaic cells and using the best solar cell systems on a 500 dunum plot of land located in the village of Al-Khanasri. The village is characterized by high brightness and technical appropriateness for the establishment of this station, where the electricity will be transferred through national electricity networks.

General objectives

1. Reducing CO2 emissions.
2. Reducing the energy bill that reaches about JOD 4 million annually.
3. Using renewable energy sources and environmentally friendly clean energy.
4. The generated energy from the photovoltaic cells include all the activities that require the consumption of electrical energy in all its forms from street lighting, buildings and various facilities, parks, travel agencies and other municipal facilities.
5. Raising citizens' awareness to utilize these techniques so that the photovoltaic cell system will be installed in the commercial, investment and residential buildings, taking the municipality as a good exemplary.



الأجراءات	الطاقة المستهلكة في سنة 2015 م و س	كمية المتوقعة في الطاقة المستهلكة سنويا في سنة 2030 م و س	كمية الانبعاثات طن ثاني اكسيد الكربون في سنة 2030	الطاقة التي يمكن توفيرها بتطبيق التدابير م و س	كمية الانبعاثات التي يمكن تخفيضها بعد تنفيذ التدابير من ثاني اكسيد الكربون	كلمة التصديرية د ا
إنشاء المرحلة الأولى من المحطة 4 م و ا ت	25133	40715	26424	7738	5022	3000000
إنشاء المرحلة الثانية من المحطة 4 م و ا ت				7738	5022	3000000
إنشاء المرحلة الثالثة من المحطة 4 م و ا ت				7738	5022	3000000
إنشاء المرحلة الرابعة من المحطة 4 م و ا ت				7738	5022	3000000
حملات توعية بخفض استهلاك الطاقة				210	136	100000
الإجمالي	25133	40715	26424	31162	20224	12100000

Background

Irbid municipality is responsible for providing street lighting services to its main streets and sub roads within its organized (zoned)areas that reach 23 regions

The total cost is estimated at 16129370 JOD,Saving is about 23845 MWh,The GHG reduction is approximately 15476 tn CO2.

Description of the action

- Modern street lighting system
- Replacement of photovoltaic cells with an astronomical time delay and the installation of lightning protection
- Replacement HPS lighting is a novelty of LED
- Activate the role of periodic maintenance

Mitigation	
MWh/a	t CO2/a
23845	15476
Contribution for	
62%	
Cost of Implementation JOD	
16,129,370	

General objectives

1. Saving energy consumption value
2. Improving services
3. Reducing emissions
4. Saving energy consumption value so as the street lighting and energy bill
5. Utilizing clean energy for street lighting.
6. Improving the intensity of street, parks and building lighting.
7. Raising citizen’s awareness and encouraging them to replace lighting units with energy efficient ones

Sectoral & field of action	Action NO.	Key actions and Measures	BAU Scenario		Mitigation in Energy		Mitigation in %	Costing in JOD
			MWh/a	t CO2/a	MWh/a	t CO2/a		
Public Street Lighting			38616	25062	23845	15476	62%	16,129,370
	18.0	Modern street lighting system	38616	25062			0%	
	18.1	Replacement of photovoltaic cells with an astronomical time delay and the installation of lightning protection			3200	2077	8%	367770
	18.2	Replacement HPS lighting is a novelty of LED			20645	13399	53%	15761600
	18.3	Activate the role of periodic maintenance						

3- Shuttle bus

Background

Express bus service is a type of fixed route that typically picks up passengers from park-and ride lots in suburban areas and takes them to a central urban location. This transit service usually operates for longer-distance trips peak commuter time Schedule.

The total cost is estimated at 1750000 JOD ,Saving is about 13989 MWh,The GHG reduction is approximately 3604 tn CO2.



Mitigation	
MWh/a	t CO2/a
13989	3604
Contribution for	
2%	
Cost of Implementation	
1750000	

General objectives

1. Increased transit usage can reduce the number of single occupancy vehicles on major freeways and highways. This decreases the traffic demand on the major urban freeways and streets.
2. Express service can serve as an alternative to personal automobiles. Suburban commuters can depend on this transit service to commute to the urban central business district.
3. Passengers can improve their time management by working on the bus, which is typically equipped with Wi-Fi services. Commuters can have more time to handle personal and business matters, rather than wasting time on a congested freeway.
4. Express route travel times should be competitive to driving a personal vehicle so they can be a viable solution to mitigate congestion.
5. Reduce the emission in the city

4- Construction of multi-story parking lot

Background

Irbid city centre suffers from traffic congestion as a result of the increase of population and refugees, the increase in the number of vehicles and lack of parking.

The total cost is estimated at 1750000 JOD ,Saving is about 13989 MWh,The GHG reduction is approximately 3604 tn CO2.

Mitigation	
MWh/a	t CO2/a
13989	3604
Contribution for	
2%	
Cost of Implementation	
1750000	

Description of the action

Constructing of a multi-storey parking lot (could be mechanical parking to increase capacity), will be lit and serviced using solar panels on the roof of the building holding about the building 2000 vehicle.

General objectives

- 1- Solving the problems of traffic crisis and reducing it by finding parking lots.
- 2- Developing and reviving Irbid city centre by encouraging and motivating citizens to walk in the commercial centre and park their vehicles outside it.
- 3- Reducing CO2 emissions as a result of reducing the traffic congestion in the city Centre.
- 4- Giving citizens the opportunity to park in proposed parking lots instead of the sides of the road to increase the traffic capacity and facilitate traffic flow with the introduction of a parking management system (Auto Park).

Background

The institutional framework in the Greater Irbid Municipality needs a strong, fast, reliable and flexible IT system capable of facilitating the work that could serve the local community interests. However, in the absence of clear, strategic plans, there has been a marked decline in the institutional performance, in the municipality interactive role with its various departments and regions, as well as a decline in the interactive role with citizens and community institutions.

Mitigation	
MWh/a	t CO2/a
885	220
Contribution for	
15%	
Cost of Implementation	
1000000	

General objectives

- Unifying the working procedures in each municipality, each in its major, to share best practices that could serve the municipality and all parties concerned.
- Building and strengthening the supervision and evaluation unit in the municipality to monitor and assess the work of the municipality departments and regions.
- Unifying the efforts of all community sectors to effectively engage all partners from the public and private sectors, civil society institutions and municipalities.
- Reducing potential fraud by studying the weaknesses and setting effective control measures;
- Developing the procedures and institutional work in the municipality to achieve decentralization in its various departments and regions;
- Improving the municipal financial standards and its ability to provide income, reduce costs and ensure services.
- Implementing projects efficiently and effectively with a focus on the use of available resources and the application of computerized systems, to raise the efficiency of the municipal management.

Thanks For Your Attention