

# ENERGY

Awareness Awards

1<sup>st</sup> edition

## WINNING PROJECTS

2015-2016



ORGANIZED BY



Empowered lives.  
Resilient nations.

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## ABOUT THE EAA

# ENERGY

The logo for Energy Awareness Awards features the word "ENERGY" in a bold, black, sans-serif font. The letter "E" is partially obscured by a stylized green icon consisting of three horizontal bars of varying lengths, resembling a plug or a power symbol. Below the word "ENERGY" is the text "Awareness Awards" in a smaller, black, sans-serif font.

## Awareness Awards

UNDP and IPT Energy Center (IPTEC) organized the Energy Awareness Awards (EAA) to recognize institutions and organizations in both the public and private sectors including businesses, civil society and academic sector for significant contributions to energy sustainability across Lebanon. The initiatives included developing on-site renewable energy sources; repairing and replacing inefficient equipment; installing energy-related green information technology software and hardware;; developing and advancing new processes to improve productivity; and promoting sustainability throughout organizations through collaborative partnerships, education, and outreach.

Launched for the first time in Lebanon in September 2015, the EAA gathered more than 35 applications submitted within the scope of Energy Efficiency & Conservation, Renewable Energy, Transportation and Fleet Management, Sustainability Champions and Public Energy Action.

An independent panel of experts reviewed the applications and chose the winning projects according to the following criteria:

- Demonstrated intervention in Energy Management
- Proven Results
- Originality, Innovation, and Added Value
- Impact
- Sustainability and Replicability
- Collaborations and Synergies

The distribution of the awards took place on September 23rd 2016 in the framework of the International Beirut Energy Forum (IBEF) 2016. The event was organized under the patronage of HE the Minister of Energy and Water Mr. Arthur Nazarian, and in the presence of the organizers and all concerned parties at Le Royal Hotel – Dbaye.

For more info: [www.lb.undp.org/ea](http://www.lb.undp.org/ea) [www.iptgroup.com.lb/ea](http://www.iptgroup.com.lb/ea)

## ABOUT THE ORGANIZERS



*Empowered lives.  
Resilient nations.*

UNDP is on the ground in more than 170 countries and territories, bringing global perspective and local insights together to help empower lives and build resilient nations. It serves in many respects as the operational arm of the United Nations at the country level.

UNDP addresses a range of critical development issues, meeting the diverse and often shifting challenges facing the people it serves, from combating and adapting to climate change, to fighting poverty and inequality, from protecting the environment to promoting good, inclusive governance. In Lebanon, UNDP's work spans across five intervention areas: Social and Local Development, Democratic Governance, Crisis Prevention and Recovery, Energy and Environment, and Response to the Syrian Crisis.



IPT Energy Center (IPTEC) is a specialized research center in Lebanon established by IPT on July 2012 under Registration Notice 590. The Center carries out scientific projects, social and environmental activities and programs, as well as awareness campaigns falling under energy conservation and the efficient use of energy, reduction of environmental pollution resulting from the use of energy sources, and the promotion of the use of clean, alternative and renewable energy solutions.

IPTEC also fulfills IPT's CSR targets relevant to the company's commercial activity in the petroleum and oil and gas industry. IPTEC is run by a team of energy, environment and transportation specialists. Therefore, IPTEC combines, within an institutional and organized framework, the role of a research center and the role of fulfilling CSR objectives.

## NOTE FROM THE ORGANIZERS



**Mr. Luca Randa**  
UNDP Country Director

At the United Nations Development Programme (UNDP), we seek to promote and encourage initiatives, which contribute to the achievement of the global Sustainable Development Goals (SDGs) of the United Nations. The SDGs call for worldwide action among governments, businesses, and civil society to end poverty and create a life of dignity and opportunity for all by 2030. The Energy Awareness Awards (EAAs) precisely fit the same aim; the awards are a unique opportunity to recognize and praise Lebanese private and public sector efforts having successfully implemented sustainable energy initiatives. The EAAs contribute to SDG Goal 7: Affordable and clean energy.

Our everyday lives depend on reliable and affordable energy services to function smoothly and to develop equitably. A well-established energy system supports all sectors: from businesses, medicine and education to agriculture, infrastructure, communications and high-technology. Conversely, lack of access to energy supplies and transformation systems is a constraint to human and economic development. Sustainable energy services have positive impacts on poverty reduction and the improvement of standards of living. They fuel development, from the streetlamps allowing people to travel safely home at night to powering businesses that create jobs. The shift to sustainable energy is not only the responsibility of big businesses, but a social responsibility of citizens who want to improve their livelihoods and the wellbeing of their community.

Today, renewable energy contributes a maximum of 4% of annual electricity supply, which leaves a heavy burden for each and every one of us to contribute to the achievement of this goal. As such, Lebanon committed itself to 12% renewable energy by 2020 and 20% by 2030 under the Paris Agreement.

In order to encourage and further sensitize Lebanese institutions, the Energy Awareness Awards aim to support those who have invested resources in sustainable energy, focusing specifically on sustainability, renewable energy, and energy efficiency and conservation. All institutions have proven to advance innovative business opportunities or contributed to improve their surrounding community. This is the result of a collective effort between UNDP, and the IPT Energy Center (IPTEC), and experts in the field of energy. I take this opportunity to thank each person involved in developing the awards and assessing the submitted applications. In addition, I would like to congratulate this year's winners on their outstanding achievements in their respective fields. I hope that this will set an example in the Lebanese industry, and create an incentive for businesses, NGOs, and individuals to follow the path of sustainable energy.

## NOTE FROM THE ORGANIZERS



**Dr. Toni M. Issa**

IPTEC President

Being socially responsible has become a necessity today. At IPT, we believe that the role of the business sector is not only limited to economic development, but also extends to social development, given the need for businesses to achieve sustainable growth on both social and economic levels. From here comes our belief in participating in the process of social development in a way that brings together our interests and the interests of the community within which we operate. The protection of the environment, the rejection of any action that may harm the society and the consideration of public interest when making business are among our main targets closely related to our commercial activity in the oilfield services, opting for challenges directly associated with energy, oil & gas.

For this purpose, we established IPT Energy Center (IPTEC), a specialized research center in the field of energy. In addition to supervising the achievement of IPT's CSR goals in sustainable development, IPTEC, in collaboration with governmental institutions and international organizations, takes initiatives to face serious energy related environmental problems and seeks practical solutions.

We started our activity by launching the “National Campaign for Air Pollution Reduction in Lebanon through efficient energy use in Land Transportation” in 2012 with the support of the Ministry of Environment (MoE), ESCWA, and UNDP. This initiative comprised research activities, capacity building workshops and dissemination campaigns to promote public awareness on air pollution reduction and the efficient energy use. Further to this initiative, we signed a cooperation agreement with UNDP to collaborate in the field of sustainable and renewable energy. The agreement warrants the achievement of IPTEC objectives through supporting topics related to the Center's main activities including the support and promotion of sustainable and renewable energy-related activities and projects. It is in this framework that we organized the Energy Awareness Awards (EAA) launched in its first edition in 2015 as an unprecedented initiative in Lebanon.

We believe that the EAA successfully shed light on the efforts of many institutions who completed projects in the field of renewable energy and energy efficiency and conservation. More importantly, it constituted an excellent platform to exchange experience and to explore the many environmental and economic benefits associated with these projects. IPTEC would like to thank the organizers, the jury members and all who participated this year, and congratulates the winners on their hard work. Looking forward to the second edition of the EAA and to more success stories in sustainable energy for an improved environmental quality and public health in Lebanon.

## PANEL OF EXPERTS



**HE Mr. Nazem el Khoury**  
*Chairman of the BLC  
Services SAL  
Former Minister of  
Environment*



**HE Mrs. Raya el Hassan**  
*Chairman-General Manager  
of Tripoli Special Economic  
Zone  
Former Minister of Finance*



**Mrs. Marianne Hoayek**  
*Director, Executive Office,  
Banque Du Liban (BDL)*



**Mr. Hassan Harajli**  
*Project Manager, Energy  
and Environment Program,  
CEDRO-UNDP*



**Prof. Farid Chaaban**  
*Chairperson & Professor,  
Faculty of Engineering and  
Architecture, AUB*



**Mr. Karim Osseiran**  
*Energy Consulting Expert,  
Ministry of Energy & Water*

# WINNING PROJECTS IN THE ENERGY EFFICIENCY AND CONSERVATION CATEGORY



Tawlet Ammiq by Al-Shouf Cedar Society



Energy Conservation Project by Pesco Energy

## Tawlet Ammiq by Al-Shouf Cedar Society



SHOUF BIOSPHERE RESERVE  
محمية الشوف المحيط الحيوي

[www.shoufcedar.org](http://www.shoufcedar.org)

### Industry Type

Environmental NGO

### EAA Category

Energy Efficiency and Conservation

### Project Title

Tawlet Ammiq

### Project Description

Tawlet Ammiq restaurant is designed and built for Environmental Performance, which stands for low energy and water consumption, low gaseous, liquid, and solid waste generation, low resources uses, high indoor environment quality, all blending with the environment, and promoting social responsibility. Tawlet Ammiq has exceptional environmental performance features: solar control for large bays, Canadian Wells, solar chimneys, ceiling fans, light wells, 3 efficient gas boilers, high thermal performance building envelope, and a green roof.



## Energy Conservation Project by PESCO Energy S.A.L



**PESCO  
ENERGY**

Member of Debbane Saikali Group

[www.debbanesaikali.com](http://www.debbanesaikali.com)

### Industry Type

Energy Service Company

### EAA Category

Energy Efficiency and Conservation

### Project Title

Energy Conservation Project at Debbane Saikaly Group

### Project Description

The project consisted of two phases: conducting full audit reports at Debbane Saikaly Group based on real time metering data, and implementing the best Energy Conservation Measures (ECMs) in seven of the Debbane Saikaly companies : PESCO Telecom, Moscanet (WISE), IMC Telecom, Exotica, DESCO holding, Desco Management, and Wines of Lebanon (IXSIR). These facilities, which are relatively high consumers of electrical energy, paved the way for an energy saving action plan with significant benefits compared to the baseline. The ECMs included, but were not limited to, Smart Metering, LED Lighting Retrofit, Power Factor Correction, and Solar PV Station. The project decreased the peak loads in amperes and the overall yearly electrical consumption.



# WINNING PROJECTS IN THE RENEWABLE ENERGY CATEGORY



Solar Energy Lights by Madaniyoun For Tripoli



Solar Pumping System by Elements Sun & Wind



First Solar/Diesel Hybrid Installation by IRI

\* REGOGNITION CERTIFICATE

## Solar Energy Lights by Madaniyoun for Tripoli



Facebook 2263 لطرابلس مدنيون

### Industry Type

Social Developmental NGO

### EAA Category

Renewable Energy

### Project Title

Solar Energy Lights on Al Salam Roundabout in Tripoli

### Project Description

The Southern Entrance of the second biggest city in the country was always dark in the night due to electricity cuts. Nobody took the initiative to solve that problem in an environmental and sustainable manner, prompting the local NGO, Madaniyoun for Tripoli, to privately fundraise and install 40 street poles powered by solar panels. These poles now provide continuous lighting to the entrance of Tripoli, improving the security of driving during nighttime.



## Solar Pumping System by Elements Sun & Wind



*Clean power providers*

[www.elementssw.com](http://www.elementssw.com)

### Industry Type

Renewable Energy Engineering Company

### EAA Category

Renewable Energy

### Project Title

Solar Pumping System

### Project Description

The “Solar Pumping” Solution allows the replacement of the diesel generator as a main source of power for the water pump by a Photovoltaic (PV) system to supply the existing pump with the required power. The existing diesel generator would operate as a backup if needed. The system uses a Variable Frequency Drive (VFD) to operate the pump which allows the pump to run at various speeds reducing considerably the needed amount of power. The system is suitable for industries with access to sunlight and with high water demands, ideally farming, water authorities, pool filtering etc...



## First Solar/Diesel Hybrid Installation by Industrial Research Institute



[www.iri.org.lb](http://www.iri.org.lb)

### Industry Type

Trade and Contracting

### EAA Category

Renewable Energy

### Project Title

First Solar/Diesel Hybrid Installation In Lebanon

### Project Description

The first of its kind in Lebanon project is a 56.1kWp rooftop on-Grid solar system designed to work through a micro-grid (hybrid PV-diesel) environment. It was installed on the roof of the Industrial Research Institute (IRI) building. The idea was to deploy a reliable PV system within some predefined budget that can adapt to the Lebanese case where the solar system can dually synchronize with the EDL grid, when power is on, and with the local diesel generator, in times of blackouts. This approach fits best the Lebanese case and maximizes the utilization of the solar energy produced, thus reducing both Utility (EDL) as well as Diesel-generated energy.



# WINNING PROJECTS IN THE SUSTAINABILITY CHAMPIONS CATEGORY

1<sup>st</sup>  
PRIZE

NAGEEB Program by The Green Pact

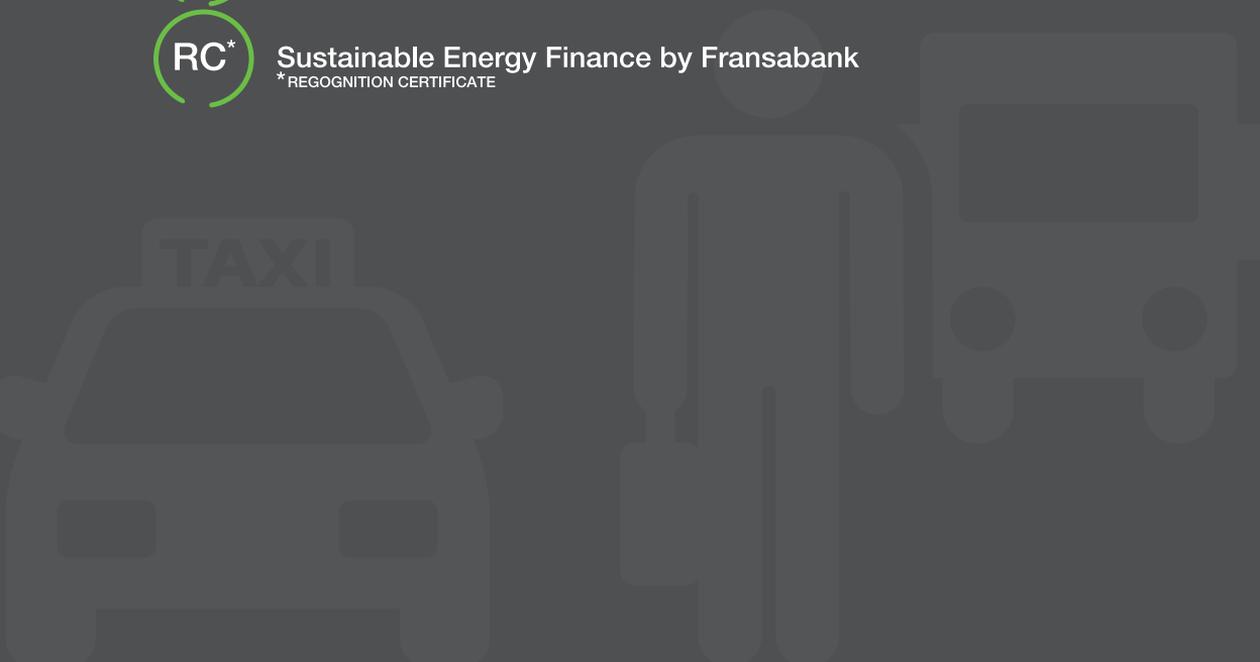
2<sup>nd</sup>  
PRIZE

Green Schools Certification Program by e-Ecosolutions

RC\*

Sustainable Energy Finance by Fransabank

\*REGOGNITION CERTIFICATE



## NAGEEB Program by The Green Pact



Facebook The Green Pact - الحلف الأخضر

### Industry Type

Construction and Infrastructure

### EAA Category

Sustainability Champions

### Project Title

The National Action for Green Energy Efficient Building (NAGEEB Program)

### Project Description

The NAGEEB program provides energy efficient housing solutions at affordable prices in rural areas. It targets any villager who is intending to build a house but does not have neither the knowhow nor the resources to do so. It will handle all the processes from design to permitting, financing, procurement, construction management, supervision, and commissioning until handover. The built houses are self-sufficient in energy and the beneficiaries have to pledge not to build on more than 15% of the land.





[www.eecosolutions.com](http://www.eecosolutions.com)

## Industry Type

Environmental Consulting Firm

## EAA Category

Sustainability Champions

## Project Title

Green Schools Certification Program

## Project Description

The Green School Certification Program was launched and implemented under the patronage of the Ministry of Education and with the support of the Ministry of Environment. It is a full guidance, audit work, consultancy services, reporting, and solutions providing to the schools to help them become environmental friendly, forming the first Green Schools Community in Lebanon. It was offered free of charge to the first 100 private and public schools participating. The program addressed 6 main categories: recycling, green spaces, energy efficiency, water efficiency, health and safety, and sustainability education and innovation.



## Sustainable Energy Finance by Fransabank S.A.L



# FRANSABANK

[www.fransabank.com](http://www.fransabank.com)

### Industry Type

Bank

### EAA Category

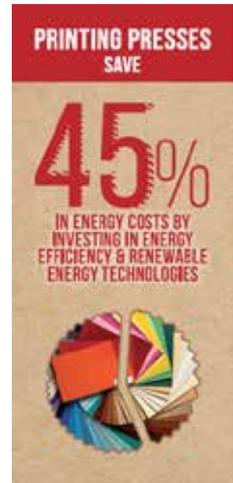
Sustainability Champions

### Project Title

Sustainable Energy Finance

### Project Description

In 2013, Fransabank included Sustainable Energy Finance in the core activities of the bank as a separate business line. This includes Energy Efficiency, Renewable Energy and Green Buildings. The unit's objective is to define and develop specific products for industries, prioritize targeted sectors, identify partnerships, continuously train sales force, and develop marketing and communication campaigns specifically for sustainable energy projects. Moreover, Fransabank included an Environmental and Social Management System for its portfolio management, reserving the right not to approve a loan if it does not comply by some environmental and social eligibility criteria.



# WINNING PROJECTS IN THE PUBLIC ENERGY ACTION CATEGORY



**Green Roof by Banque Du Liban**  
\* APPRECIATION AWARD



**Beirut River Solar Snake by MoEW & LCEC**  
\* APPRECIATION AWARD



## Green Roof by Banque Du Liban



مصرف لبنان  
BANQUE DU LIBAN  
[www.bdl.gov.lb](http://www.bdl.gov.lb)

### Industry Type

Central Bank

### EAA Category

Public Sector

### Project Title

Green Roof

### Project Description

The green roof, installed on the roof space of the BDL premise and covered by vegetation, enhances both aesthetics and energy performance of the building, hence increasing the share of green spaces. Green roofs can also be considered as additional layers of insulation, due to their composition of soil, plants and water. It thus decreases the reliance on air conditioning and helps lower CO2 emissions through the lowering of air conditioning demands.



## Beirut River Solar Snake (BRSS) by MoEW & LCEC



### Industry Type

Public Institution

### EAA Category

Public Sector

### Project Title

Beirut River Solar Snake (BRSS)

### Project Description

Through the Lebanese Center for Energy Conservation (LCEC), the Ministry of Energy and Water installed a photovoltaic (PV) farm across 325 meters of the Beirut River with a capacity of 1.08 Mega Watts peak (MWp). The PV farm, first of its kind in Lebanon, is made up of two structures, first a concrete structure and second a steel one. Part of the National Energy Efficiency Action Plan, the PV farm will generate 1,655 Mega Watt Hour per year (MWhr/yr) and will comprise a console, accessible to the public, on which will be displayed current production, the savings in kWh and in carbon emissions.



