

COMPANY PROFILE



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NOORNATION
نور نيشن للطاقة المتجددة

Alternatives of Tech-enabled Decentralized Infrastructure.
Providing Safe Water & Clean Energy to less-served
Communities.

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Main Office: Office 115, TIEC Building, Smart Village, Giza, Egypt

- 28.8 km Alexandria - Cairo desert road, Abu Rawash Industrial Zone, Giza, Egypt

- Industrial Unit no.67, Industries Complex, Hurghada, Red Sea Governorate

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ABOUT NOORNATION

The first African Egypt-based renewable energy start-up to bridge life essentials through decentralized infrastructure solutions for less-served areas in Egypt and Sub-Saharan Africa.

Our name is inspired by the word **Noor** in Arabic, it means light, and light is not only the essence of renewable energy resources but also the beacon of hope. From Egypt, NoorNation is spreading aspiration to Africa by using innovation to **bridge life essentials**; clean electricity and safe water from solar energy empowering farming, tourism and rural businesses in less-served communities.

VISION

We have the vision to empower 1 million people in Africa with their life essentials of accessible energy and water from renewable resources.



NOORNATION AS A MANUFACTURER

We are approaching our vision by manufacturing the infrastructure solutions locally with our calibers, contributing directly to the industrial localization movement as well as sustainability governance globally to give peace of mind to our customers; farming & tourism businesses and rural communities for achieving their triple bottom line; social, financial, environmental growth. Since our factory has been up and running, we are enabled to take control of various aspects including costs, manufactured products, and services.

Our manufacturing model consists of 2 essential parts, solution-based production, and service offering commitments.



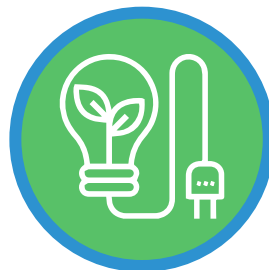
NOORNATION MILESTONES



670 kWp
Installed



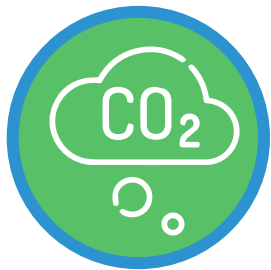
\$200,000
Money Saved



2 GWh Energy
Produced



3000 m²
Land Saved



1500 Tons
CO₂ Mitigated
Emission



5 Million Liters
Water
Desalinated



2,260,000 m³
Water
Pumped



1200
beneficiaries
from LifeBox

NOORNATION SOLUTIONS

Currently, We are developing and manufacturing tech-enabled solutions by renewable energy.



LifeBox is tech-enabled and ready-made for every need, it's available from 3 to 130kWp, either water pumping for irrigation, water desalination or electricity for home appliances or even all together customizable for your agriculture and farming needs using only solar power.

I. DECENTRALIZED INFRASTRUCTURE

In the form of our flagship product LifeBox, an innovative mobile solution for green infrastructure delivering clean energy and safe water with a committed efficiency, all designed and manufactured in Egypt, and Africa.

- ✓ SOLAR-POWERED
- ✓ SELF-CONTAINED
- ✓ FAST-DEPLOYABLE UNIT



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LIFEBOX FEATURES

Ready-made for Every Need

Available from 3 to 130 kWp, either electricity or water production and desalinated water up to 45000 ppm.

Dual Supply of Clean Energy & Safe Water

Water pumping for irrigation, powering and lighting labour houses + water desalination & purification all for farms, camps, and eco-lodges.

Remote Control & Monitoring

Each LifeBox contains remote control & monitoring system using IoT for optimal system monitoring, fault prediction, and maintenance notification.

Area Effectiveness

Consumes 73% less footprint than regular PV systems.

Plug & Play

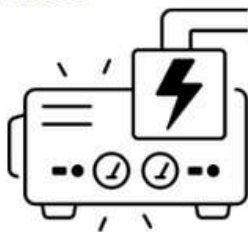
Rapid installation & operation



LIFEBOX FEATURES



**10 years operational
Green Warranty excluding
water desalination
consumables**



Can work in **Hybrid** with Diesel
Generator or Electricity Grid
(Optional)



10% higher efficiency for
elevated **Bi-facial** solar
modules due to LifeBox
innovative design



50% Less in infrastructure
compared to regular ground
mounted systems



LIFEBOX COMPONENTS

Durable Mounting Structure

Industry-leading solar mounting structure; best in class hot dip galvanized (HDG) steel structure, withstands 5 times its load, multi-layer protective coating, highest wind load durability yet designed to offer ultimate flexibility that built to last.

Solar Panels

Withstands high temperature like no other! Tier 1, Mono Crystalline mounted on plug & play, sub-assembled and HDG corrosion-resistant steel structure, easy-fast assembling or dismantling with zero damages.

Fresh Water Out

Reservoir for fresh, hygienic, and ultra-filtered safe water for drinking, agriculture, livestock, domestic use, ensuring quality and well-being.

Inlet Water

Reservoir for contaminated or high salinity water from bore wells, canals, lakes or sea water.

Container

The containing unit safely houses the solar system components, extends their lifetime and improves performance. It's innovative pre-fabricated design makes it completely plug & play, portable and easily deliverable to the most hard-to-access locations.

IT'S CUSTOMIZABLE
FOR YOUR NEEDS

LIFEBOX





II. REMOTE CONTROL & MONITORING SYSTEM

NoorNation's LifeBox is providing IoT feature for real-time data and securing constant water and energy supply. The system allows users to monitor many parameters such as daily water pumped, energy production, CO2 avoided, and many more.

Also, it is an innovative tool for the sustainable operation of reliable performance, longer lifespans of components, fault prediction and maintenance notifications.



III.SERVICE OFFERING COMMITMENT

NoorNation offers easy payment and quick installment options, available for up to 5 years, allowing customers to enjoy the benefits of clean energy within 3 to 5 years. Moreover, for financing partners, NoorNation's remote control and monitoring systems are an attractive financing facility for banks, "buy now, pay later" companies, impact investors and donors.



A. Green Warranty

10 years overall warranty for operation, efficiency and performance plus each component product warranty



B. Competitive Prices & Payment Facilities

In-house development, engineering, and production in their factory in October & Hurghada allow them to offer competitive prices and flexible payment facilities suits customers' needs.



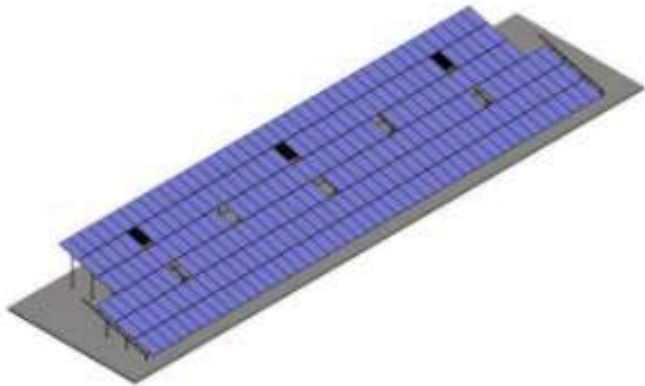
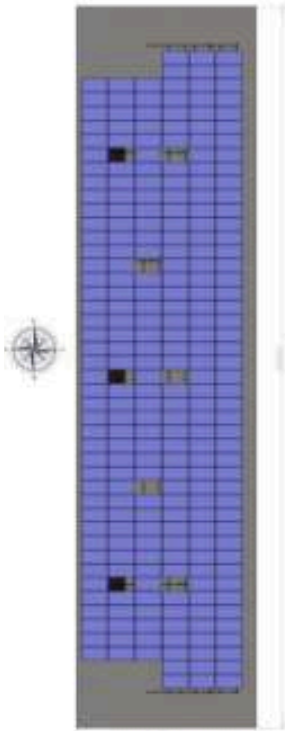
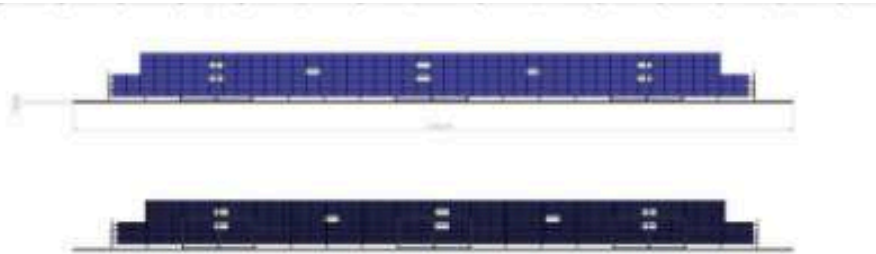
C. After buy & maintenance services

NoorNation offers one-year free maintenance services and serves various locations, ensuring that customers receive reliable and efficient services.

Solution overview

LBPVP150, 165 kWp LifeBox, offers an innovative solution for operating a 150 hp submersible pump, providing 1350m³/day on average. The pump can be switched to run by diesel in certain circumstances of operation at Linah Farms. With this sustainable approach, our advanced LifeBox, equipped with remote monitoring and control, can provide cost savings, enhanced efficiency, and reduced environmental footprint.

Sample 3d design



IV. INCLUSIVE ACCESSIBLE CLEAN ENERGY & SAFE WATER SERVICES



LifeBox Water Purification through **PayG** or lease-to-own for rural communities in Sub-Saharan Africa.



SlaaS (Solar Irrigation as a Service), integrating our solar power solutions with smart irrigation as a service for small farmers.



EcoFlex, a sustainable mobile and plug & play containing units for recreational, agriculture, construction businesses and more!



Design, Engineering and constructing all applications for **small-scale solar PV systems**.



Providing state-of-art **Training and Consulting Services**.



SOLUTION-BASED MANUFACTURING SHOWCASE

NoorNation believes in combining sustainability with innovation to address fundamental problems like access to safe water, food, and electricity.

LifeBox focuses on the user journey and utilize solar energy in unique ways. In their latest project, **LifeBox Water-Energy-Food Nexus**, solar energy is used to pump water for irrigation, desalinate water, and fill a fish reservoir

The innovation demonstrates how our decentralized infrastructure solutions can create a sustainable and reliable value chain for food production, irrigation, and water management.

Water-Energy-Food Nexus



LifeBox pumps underground water for irrigation



LifeBox desalinates underground water for drinking & livestock



Fish wastes used as fertilizers



Reject water fills fishpond reservoir

PEOPLE OF NOORNATION



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PEOPLE OF NOORNATION



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Founder & CEO



Mohamed Khaled
Co-Founder &
CTO



Anton Tarek
Mechanical
Engineering head



Mayar
Technical-Sales
Engineer



Salah Eldin
Business
Development
Engineer



**Abdelrahman
Tarek**
Project
Engineer



Eman Wahby
Advisor
13 years of international
development experience
with the World Bank
Group



Maelis Carraro
Advisor
Co-Founder of Catalyst Fund



Impact-driven

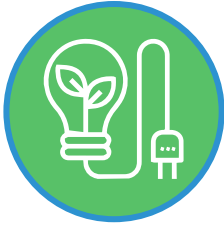
Efficiency

Empathy

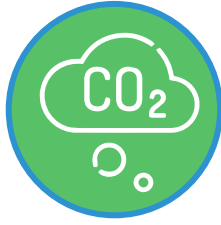
Commitment

Simplicity

IMPACT



2 GWh
Energy Produced



1500Tons
CO₂ Emission Mitigated



5 Million Liters
Water Desalinated



3000 m²
Land Saved



200,000 USD
Money Saved



Up to 120
Farmers
Empowered



Direct Related SDGs

6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



SCALABILITY IMPACT IN AFRICA

The impact we leave after deploying our solution: environmentally, socially and financial is focused on expanding decentralized infrastructure solutions for supplying modern and sustainable energy services. This is obvious in how renewable energy can close the gap of 2.8 billion people lacking access to basic services infrastructures such as water and electricity.

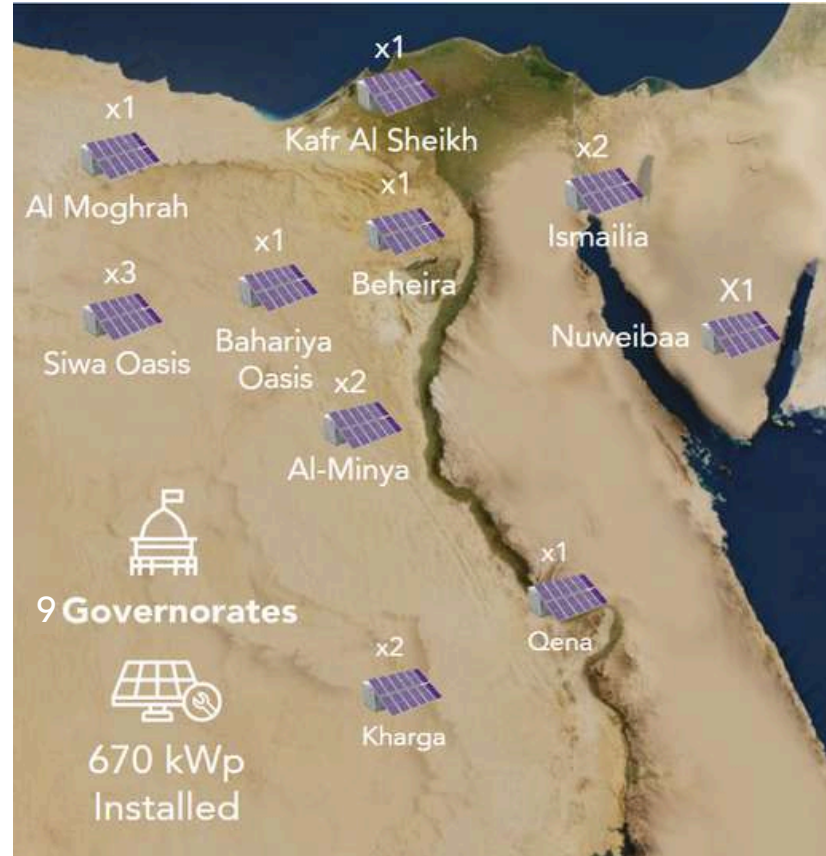
An opportunity to expand: Morocco, Kenya, Zanzibar, Tanzania, and sub-Saharan Africa.



IMPLEMENTED PROJECTS

NoorNation team successfully implemented 15 projects on off-grid areas across Egypt.

- Remenkimi Orchards, Cairo-Ismailia Road (Nov. 2021)
- Shahin Farm, Cairo-Ismailia Road (Jan. 2022)
- Golden Land Farm, Moghra (May 2022)
- Bore'l Farm, Al Alamein Road/Natroun (Aug. 2022)
- Khedr Farm, Baharia Osais (Dec. 2022)
- Al Amal Farm, West Minya (Oct.2022)
- Upper Egypt Sons Farm, Minya (Jun, 2023)
- K.Nahas Farm, Qena western road (May 2023)
- Santar Ecolodge (x3), Siwa Oasis (Jun. 2023)
- Wady Natroun Farm, Wady Natroun (Dec. 2023)
- LBX Ways, Kafr Al Sheikh (Dec. 2023)
- Kharga, New Valley (Mar. 2024)



PROJECT REFERENCES

Project 1 | November 2021

LIFEBOXPVP60W5 to RedmenkimiFarm, 60 acres, Cairo-Ismailia Desert Road

- 64kWp LifeBox powering 60hp submersible irrigation pump
- Producing 5m³ daily of fresh drinking water by desalinating underground water

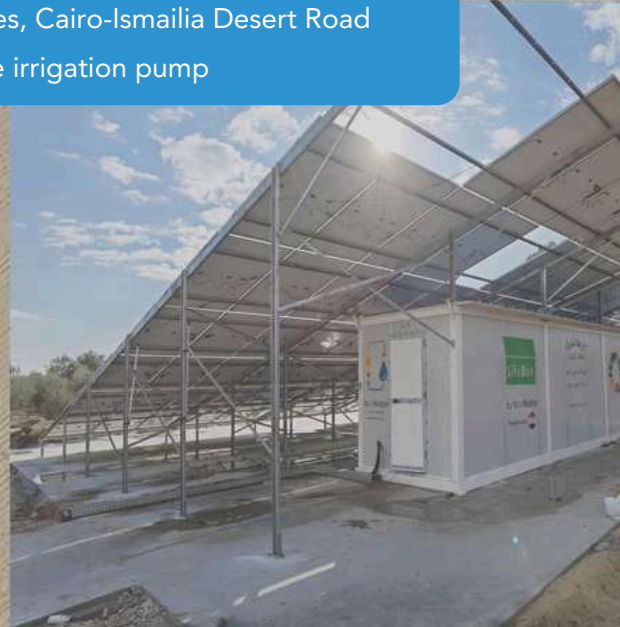


PROJECT REFERENCES

Project 2 | January 2022

LIFEBOXPVP50 to Farouk ShahienFarm, 30 acres, Cairo-Ismailia Desert Road

- 53kWp LifeBox powering 50hp submersible irrigation pump



PROJECT REFERENCES



Project 3 | June 2022

LIFEBOXPVP50S2 to AbdulMonemFarm, 200 acres, Al MoghraWestern Desert

- 54kWp LifeBox powering 50hp submersible irrigation pump
- Powering farmhouses



PROJECT REFERENCES

Project 4 | August 2022

LIFEBOXPVP30S2W10 to Ahmed BoreiFarm, 33 acres, Al Alamein Road

- 32kWp LifeBox powering 30hp submersible irrigation pump
- Producing 10m³ daily of fresh water by desalinating underground water for both drinking & livestock
- Powering farmhouses



PROJECT REFERENCES



Project 5 | September 2022

LIFEBOXPVP50 to Hajj Sayed Farm, 200 acres, West Al Minya

- 52kWp LifeBox powering 50hp submersible irrigation pump



PROJECT REFERENCES

Project 6 | September 2022

LIFEBOXPVP50S5 to Al KhedrFarm, 200 acres, BahariaOasis Western Desert

- 57kWp LifeBox powering 30hp submersible irrigation pump
- Including integrated 5kWp solar home system for 24/7 lighting & power for farmhouses
- All-in-one relief hub; LifeBox container tailored as house for living



PROJECT REFERENCES

Project 7 | June 2023

LIFEBOXPVP125 to Eng. Mohamed Mira's Farm, 100 acres, West Al Minya

- 138 kWp LifeBox powering 125hp submersible pump, and irrigation pump Powering 5hp pivot irrigation system



PROJECT REFERENCES

Project 8 | On Demand Unit

NoorNation factory in Hurghada.

Industrial Unit no.67, Industries Complex, Hurghada, Red Sea Governorate

- LVPVS2W1 fully mobile unit of 1.6kWp: Powering farmhouse, and producing fresh desalinated water up to 1m3 per day



PROJECT REFERENCES

Project 9 | June 2023

LBPVP10 / LBPVP15 to Santar Ecolodge, Siwa, Marsa Matrouh

- 11kWp LifeBox powering 10hp submersible irrigation pump
- Serving both Irrigation and drinking



PROJECT REFERENCES

Project 10 | November 2023

LBPVP60S01 to ENG Islam, Wady Natroun, Behira

- 61kWp LifeBox powering 60hp submersible irrigation pump
- Including integrated solar home system for 24/7 lighting & power for farmhouses



PROJECT REFERENCES

Project 11 | December 2023

LBPVP25 to Ahmed Al Marsafawy, Kafr Al Sheikh

- 25kWp LifeBox powering 25hp submersible irrigation pump



PROJECT REFERENCES

Project 12 | March 2024

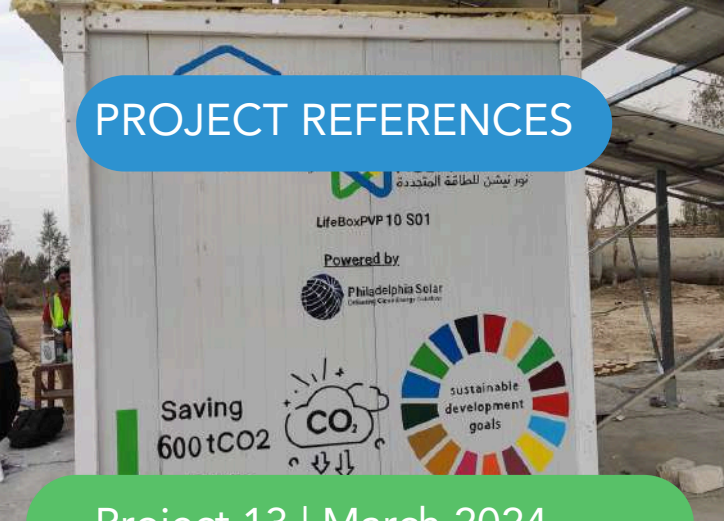
LBPVP40 to Ahmed Selim, Kharga, Wadi Gadid

- 41.25 kWp LifeBox powering 40hp submersible irrigation pimp



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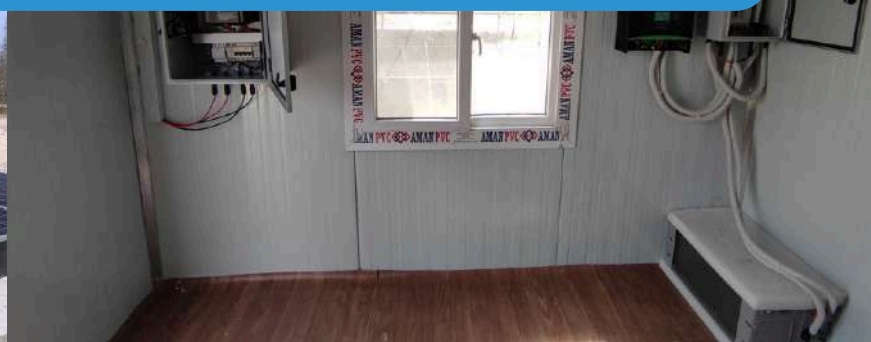
PROJECT REFERENCES



Project 13 | March 2024

LBPVP10S01 to Mr. Khaled Nahas, Qena Western Road, Qena

- 11.5 kWp LifeBox powering 10 hp irrigation pump
- Including integrated solar home system for 24/7 lighting & power for farmhouses



SlaaS Solar Irrigation as a service

(Under development)

SlaaS by NoorNation, is an innovative model that transforms flood irrigation into modern/smart irrigation systems driven by LifeBox (solar powered), where farmers can pay as per use for time of water pumped during pre- or after post-harvest. This model eliminates the need for large upfront investments, allowing farmers to pay with ease based on their usage. Ownership can be transferred to farmers within 5 to 7 years.



Transform ownership
within 5-7 years



Ease of Payment



Smart irrigation



Reduces High upfront
investments

SlaaS

A revolutionary new model that solves problems



Over flood irrigation



Very low irrigation efficiency



Low profitability



50% energy share for production

SlaaS in action

SlaaS Solar Irrigation as a service (Under development)

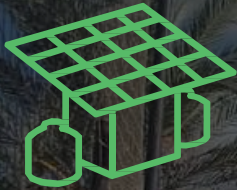


Our SlaaS pilot on a 2 feddans farm testing both ground-water and simulating stream/canal surface water pumping built with smart irrigation through field sensors and remote monitoring & control web platform, while optimizing the system operation, controlling on/off functions based on payment or credit status



SlaaS Impact

In 1 year we can achieve



10

Implemented SlaaS systems over 4 governorates



1 Million EGP

Additional income to farmers



330MWh

Solar Energy replacing 20 diesel pumps



1000 people empowered
40% women



260 Tons
CO₂ eq. Mitigated

RECOGNITION, AWARDS, and PARTNERSHIPS



November 3rd., 2022 NoorNation was awarded by H.E. Egypt Prime Minister Dr. Mostafa Madbouly as Egypt's 1st Place Winners in the COP27 National Initiative for Smart Green Governorates.



Winning the SolarX Grand Challenge and recognized as one of the most innovative and scalable solar energy startups in [#africa](#)



1st Place worldwide in One Creation Award for environmental innovation



CNN Arabic media appearance



Innovation 30 Award for the best young inventors from UNICEF





NOORNATION

نور نيشن للطاقة المتجددة

BRIDGING LIFE ESSENTIALS



THANK YOU