

## *Zero And Low Emission Power Solutions*

*Realistic solutions for a better environment, for a better future!  
We invent and together we make it sustainable!*



## Our story

We believe in functional sustainability. By innovating components and discovering new technologies, we continuously push boundaries. Thanks to the ability to change, ambition, and down-to-earth mentality of all our employees, we can solve every energy need or power challenge.

It doesn't matter what situation you are in, having renewable, reliable, and off-grid energy at your fingertips should be as easy as flicking a switch.

Our broad and extensive experience in both private and business projects creates a solid foundation for our company. With our future attitude, we have the focus to pioneer in the energy sector, and progress and improve our work. For our customers and the environment. Maru, we anticipate to innovate.



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MARU

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Renewable  
energy  
*re-evaluated.*



*Anticipate to innovate.*





# MESU Models

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## MESU Model 45

Due to the unique and intelligent link between various components (generator, battery pack & solar panels), this hybrid off-grid power solution is extremely suitable for supplying power at locations where the continuity of energy must be guaranteed. The unique EMS and online monitoring system ensures that the system works autonomously as much as possible. The MESU model 45 is assembled in and on 10 ft. Container.

## Specifications and performance

Power generator: 60 kVA  
Noise Generator: 65 dB  
Fuel tank capacity: 690 L.  
average consumption per hour: 6.5 L.

Battery type: LifeP04  
Storage capacity: 32 kWh

Connections: 63A & 125A

Solar panels: 6x 275 wp  
Annual yield Solar panels: 1,600 kWh

## Advice price

From € 99.500

!Ask us for the yearly Cost of Ownership and the Value of Ownership!

## Action picture

MESU model 45 has maximum serviceability for construction yards in inner cities, suburbs and greenbelts. With MESU you will meet strict criteria regarding co2 and Nox emissions but also minimize noise, odor nuisance without giving in on continuity of energysupply at your construction site





# MESU Models

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## MESU Model 100

The MESU model 100 is a heavier version of the MESU model 45. The intelligent link between components (generator, battery pack & solar panels) makes this hybrid off-grid power solution ideal for supplying power to construction & infrastructure projects. The MESU model 100 is assembled in a 20 ft Container

## Specifications and performance

Power generator: 110 kVA CAT

Noise Generator: 68 dB

Fuel tank capacity: 250L standard double isolated + connection external tank

Battery type: LitLifeP04

Storage capacity: Lithium battery pack 100kWh (at 100% discharge)

Connections: 2 x CEE 400V 125A 5p

Solar panels: 20 x 275 wp

Annual yield Solar panels: 6,000 kWh

## Advice price

From € 199.500

!Ask us for the yearly Cost of Ownership and the Value of Ownership!

## Action picture

**Size does matter.** MESU model 100 has maximum serviceability for construction yards in inner cities, suburbs and greenbelts. With MESU 100 you respond to the requirements regarding noise and odor nuisance and you have continuity of energy at your construction site. With the MESU 100 you respond to the greater energy needs of your construction site or long term projects.



1. Mobile Energy Supply Unit



# Hybrid Construction Trailer

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## Hybrid trailers

The hybrid construction trailer is the first step you take when you phase out your traditional fuelled trailers into more green trailers. With the hybrid packages that MARU offers you are sure that your fuel consumption will be minimized and you will meet the standards regarding emissions on the yard.

## Specifications and performance

### Option 1 5.7 kWh Hybrid system

Battery type: LifeP04

Storage capacity: 5.1 kWh (at 100% discharge)

Converter: 1 x 24/5000

Connections: 1 x CEE CONTST 3P 16A 230V

Solar panels: 4 x 375 wp

Annual yield Solar panels: 1,470 kWh

Generator: Diesel 6.5 kVA

## Advice price

from € 14.557,

## Action picture

MARU was the first company to develop the hybrid concept and applied the hybrid system for KW, creating the first hybrid construction trailer in the Netherlands. Do you want a complete Co2 neutral construction site instead of a hybrid? The MARU engineering team designs and develops a plan to for your emission-free construction yard







# The Green Trailer

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## Emission-free construction trailers

Do you want a complete Co2 neutral trailer instead of a hybrid? The MARU engineering team has developed a concept to make all your trailers emission free and self-sufficient. The smart composition of the system makes it possible to make optimal use of the generated energy. This generated, sustainable energy can be stored and used for among light, heat, the coffee maker, laptop, stove and for ventilating the room.

## Specifications and performance

### Option 1 5.7 kWh Hybrid system

Battery type: 1 x LiFeP04

Storage capacity: Lithium-Ion battery 7.2 kWh (at 100% discharge)

Connections: 1 x CEE CONTST 3P 16A 230V

Solar panels: 4 x 375 wp

Annual yield Solar panels: 1,470 kWh

### Option 2 11.5 kWh Hybrid system

Battery type: 2 x LiFeP04

Storage capacity: Lithium-Ion battery 14.4 kWh (at 100% discharge)

Connections: 1 x CEE CONTST 3P 16A 230V

Solar panels: 4 x 375 wp

Annual yield Solar panels: 1,470 kWh

## Advice price

Option 1 from € 9.637,

Option 2 from € 14.406,

## Photo example







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# Mobile hybrid energy solutions *redefined.*

Anticipate to innovate.





# Standard M

## Model 15

Model 15 is the standard version of our battery line with 15 kVA and 28.8 kWh battery capacity. It is equipped with a charging point to power the battery pack. In addition, the package can also be powered by standard charging points for electric cars. All connections are on the outside including the power supply, operation and emergency stop. Standard equipped with 4 twist locks such as half of a 10ft container. Socket on the outside just like the controls and the readout.

## Specifications and performance

Battery type: LifePO4

Power: 15kVA

Storage capacity: 28kWh

➤ 1700mm long x 750mm wide x 1200mm high

Optional

➤ Online monitoring

## Advice price

From € 38.750

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## Product combinations

Besides the fact that the system is watertight, various product combinations can be made with other MARU products. The following can be considered: The charging station, all MESU models, Solar Frame, Hybrid and Green construction trailers and of course other models of batteries





# Standard M30

## Model 30

Model 30 is the standard version of our battery line with 30 kVA and 43.2 kWh battery capacity. It is equipped with a charging point to power the battery pack. In addition, the package can also be powered by standard charging points for electric cars. All connections are on the outside including the power supply, operation and emergency stop. Standard equipped with 4 twist locks such as half of a 10ft container. Socket on the outside just like the controls and the readout.

## Specifications and performance

Battery type: LifePO4

Power: 30kVA

Storage capacity: 43kWh

➤ 1700mm long x 750mm wide x 1200mm high

Optional

➤ Online monitoring

## Advice price

from € 51.000

MARU

## Product combinations

Besides the fact that the system is watertight, various product combinations can be made with other MARU products. The following can be considered: The charging station, all MESU models, Solar Frame, Hybrid and Green construction trailers and of course other models of batteries







# Heavy Duty M30

## Model 30

The Heavy Duty M line is the heavier range of our M line. This model has 30 kVA and 43.2 kWh battery capacity. It is equipped with a charging point to power the battery pack. In addition, the package can also be powered by standard charging stations for electric cars or optional solar panels. Connection, power supply, operation, emergency stop, socket, and readout are located on the outside. The batteries are safely stored in the bottom of the container, which can be closed.

## Specifications and performance

Battery type: LifeP04  
Power: 3 phase 30kVA  
Storage capacity: 43 kWh

➤ 2200mm long x 1200mm wide x 1300mm high

### Optional

- Online monitoring
- 1 x Solar panel of 375 wp
- Annual yield Solar panels: 368 kWh

## Advice price

from € 49,000

MARU

## Product combinations

Besides the fact that the system is watertight, various product combinations can be made with other MARU products. The following can be considered: The charging station, all MESU models, Solar Frame, Hybrid and Green construction trailer and of course other models of batteries





# Heavy Duty M45

## Model 45

The Heavy Duty M line is the heavier range of our M line. Model 45 has 45 kVA and 72 kWh battery capacity. It is equipped with a charging point to power the battery pack. In addition, the package can also be powered by standard charging stations for electric cars or optional solar panels. Connection, power supply, operation, emergency stop, socket, and readout are located on the outside. The batteries are safely stored in the bottom of the container, which can be closed

## Specifications and performance

Battery type: LifeP04  
Power: 3 phase 45 kVA  
Storage capacity: 72 kWh

2200mm long x 1200mm wide x 1300mm high

Optional  
Online monitoring  
1 x Solar panel of 375 wp  
Annual yield Solar panels: 368 kWh

## Advice price

From € 64.000

MARU

## Product combinations

Besides the fact that the system is watertight, various product combinations can be made with other MARU products. The following can be considered: The charging station, all MESU models, Solar Frame, Hybrid and Green construction trailer and of course other models of batteries





# Heavy Duty M45 MAX

## Model 45 MAX

The Heavy Duty M45 MAX is the heaviest storage unit in the M-line of our battery series with 45 kVA and 120 kWh battery capacity. It is equipped with a charging point to power the battery pack. In addition, the package can also be powered by standard charging stations for electric cars or optional solar panels. Connection, power supply, emergency stop, socket, operation and readout are located on the outside. The batteries are safely stored in the bottom of the container, which can be closed.

## Specifications and performance

Battery type: LifeP04  
Power: 3 phase 45 kVA  
Storage capacity: 120 kWh

➤ 2200mm long x 1200mm wide x 2260mm high

### Optional

- Online monitoring
- 1 x Solar panel of 375 wp
- Annual yield Solar panels: 368 kWh

## Advice price

From € 95.000

MARU

## Product combinations

Besides the fact that the system is watertight, various product combinations can be made with other MARU products. The following can be considered: The charging station, all MESU models, Solar Frame, Hybrid and Green construction trailer and of course other models of batteries



3. Battery storage





## Heavy Duty Deluxe

### Heavy Duty Deluxe

The Heavy-Duty Deluxe Battery is a mobile, sustainable energy source that can be used anywhere! No noise, no CO2 emissions and can be perfectly connected to The Green Generator or other external power sources. With The Green Battery, all your events, construction, and infrastructure projects in urban and nature areas are CO2 neutral and that noise nuisance is a thing of the past.

### Specifications and Performance

Battery Type : LifeP04

Storage Capacity: 72kWh

- High-end quality
- Online monitoring
- Can be connected to the hybrid generator
- Directly rechargeable by solar energy
- This mobile hybrid power is easy to move and easy to use
- Heavy Duty with container twist locks
- IP65 water and dust proof
- No noise and CO2 emissions

### Advice price

From €83500

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### Photo On Location

Advanced design with an LED battery charge indicator is what makes it special and unique. The Green Battery Deluxe is easy to monitor and maintain, as it is able to show battery charge through LED indication. The battery is available in your company colour (s).





## Mobile Battery Storage

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### The Powerbox Trailer

Low costs and mobility come first with the Powerbox. The closed trailer with a battery pack and inverters provide direct power to every location for the fast projects that need to be done. With its low weight, 750 kg, it can be taken by everyone. The Powerbox trailer has a solar panel on the roof and can be connected with a generator, making your power supply immediately hybrid.

### Specifications and Performance

- Battery Type : LifeP04
- Power: 3 phase 15kVA
- Storage Capacity :28kWh
  
- 2000mm long x 1100mm wide x 1500mm high

### Optional

- Online monitoring
- 1 x Solar panel of 375 wp
- Annual yield of Solar panels: 368 kWh

### Advice Price

from € 29.900,

### Photo on Location

A fully galvanized 750KG trailer that does not require a driver's license. Optimal flexibility.





## Mobile battery trailer M variant

### Mobility solution for SM and Heavy-duty batteries

The lightest model (SM 15) weighs approximately 550kg and can be supplied with a single axle trailer. Only a B driving license is required for this. This makes it extremely quick to deploy. SM model 30 can also be supplied with a trailer, please note that this requires a BE driving license with a maximum weight of 1,000 kg. The heavy-duty models of the M series (model 35, model 45) can be mounted on a BE trailer using twist-locks. These can also be easily lifted off the container on location.

### Specifications and Performance

Battery Type: LifeP04

Power: Various

Storage Capacity: Various

- length x width x height depends on the model

### Optional

- Online monitoring
- 1 x Solar panel of 375 wp
- Annual yield of Solar panels: 368 kWh

### Advice Price

On request, reference frame M-line batteries.

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### Photo on Location

Did you know that MARU can optionally supply a trailer with its loading and unloading system? This system has a unique carriage underneath the heavy-duty line so that 1 person can easily unload the container at any location.







# Solar Frame

## Standard Version

The MARU Solar Frames are multifunctional and can be linked to all the MESU models, including the electricity grid and other solar panel fields. Our frames are functionally durable, scalable, and very robust, so there is little to worry about. Did you know that we equip our Solar Frames with an EMS so that you can remotely monitor the performance?

## Specifications and Performance

Frame: 6058 x 2440 x 1550 mm 650 kg

Solar Panels: 12 x 330wp

Annual Yield Solar Panels: 3760 kWh

Inverter: 3KW

### Included

- 20 mtr. Cable
- 20 mtr. Network Cable
- 4 x twist-locks
- Instruction Manual

### Optional

- Online monitoring

### Advice price

from € 8.750

MARU

## Photo on Location

The Solar Frame is easy to place on a 20ft container using twist locks or between the containers as a cover. The Solar Frame is a part that you should not miss on your sustainable construction site.





# Heavy Duty Loading Solutions

## Heavy Duty Loading Solutions

The Green charging station is robust and specially developed for construction and infrastructure locations. This can be connected to our MESU models and the grid, in addition to electric vehicles.

## Specifications and Performance

Charger Type \* type 2

Power: 11 kW | 16A 3 fase

### Included

- Robust frame 420mm x 500mm x 1260mm
- Ratio 11kw 3 F car charger
- 10 mtr. cable

### Optional

- In your own colour

## Advice price

From € 1.850

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## Photo on Location

MARU construction charging stations are available in various colors and are easy to move by a strong man | woman of construction.





## Specials

### The Green Power Wall

A 20 ft frame where 40 solar panels fold out fully automatically. Can be built by 1 person using an integrated remote control. Usable up to wind force 8. Automatic folding when wind speeds are too high. Own outriggers ensure that no ballast is required. In winter, the green power wall still generates 22kWh per day. an average household uses 8 kWh per day.

### Specifications and Performance

Solar Panels 40x400

15 kw peak power

6058mm x 2440mm x 2890

Annual yield of solar panels: 15,200 kWh

### Instruction Manual

Optionally equipped with battery and converters for a complete zero emission energy supply

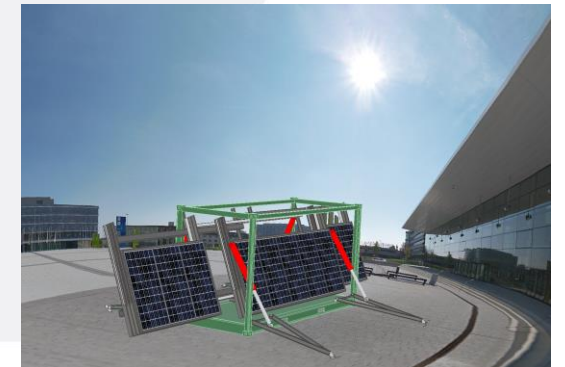
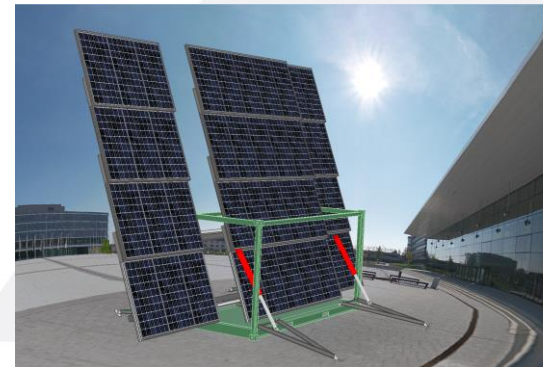
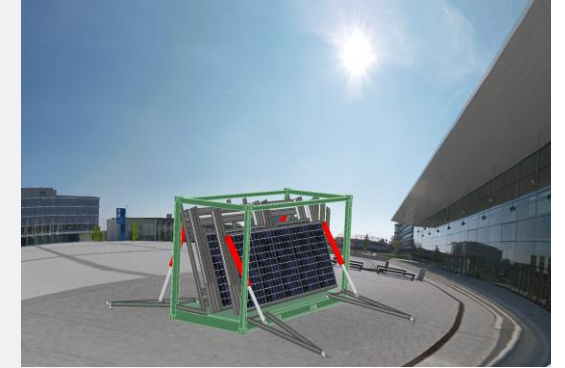
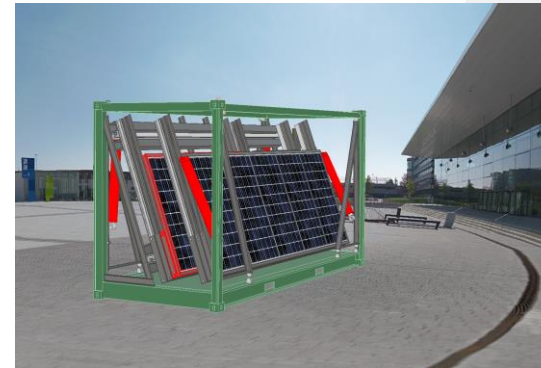
### Advice Price

From €85000

MARU

### Photo on location

Uniqueness is paramount with the development of the Green Power Wall. Do you want to leave your clients perplexed with the use of this energy-producing system? We are happy to tell you more about it.







## Specials

### Stackable Solar Frames

Stackable solar frames can be placed at a field, on containers, fix them with the twist locks, and also you can also make a solar field. we can also place the frames at a height of 2.5 to 3 meters on support legs so that you can make covers or temporary solar cover for parking spaces for construction sites but also events.

The stackable solar frames are transported as 20ft dimensions with 11x a solar frame with 22550Wp power and outlet clamp, can be placed within 10 minutes and fixed with twist locks.

Event industry could also use these solar frames in combination with a battery pack such as The Green Battery Deluxe or the Heavy Duty L.

### Specifications and Performance

On Request

### Advice Price

On Request



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## Specials

### Heavy duty L and Heavy-duty L Max

MARU can also help you with the heavier battery models with the Heavy-duty L: 110kVA or 200kVA with a 300kWh battery or the Heavy-duty L Max. This is a 200kVA or 300kVA with 500kWh battery.

In addition, MARU has started with the ZEUS concept.

### Specifications and Performance

On Request

### Advice Price

On Request

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### Heavy Duty XL

We also supply Heavy Duty XL with 200 to 500kVA and 1MWh capacity, this is in a 20ft container like the picture.

Curious to know more? Get in touch with us





# Off Grid Energy Solutions

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## Model 30

Our entry-level model with low-noise generator and solar panels. This compact 30kVA hybrid green powerhouse can easily be placed in places with limited space due to its 10 ft container. Our backup generator can also run on low emission bio-diesel which results in low carbon footprint.

## Specifications and Performance

- 10ft container
- 45 kVA generator
- 45 kVA inverter
- Generator with 3 phase connection
- 6 solar panel on rotating arm
- Battery storage 30kWh lithium

**Possible saving and CO2 reduction up to 80%**

## Advice Price

On request. Prices may vary per country depending on the climate requirements (Depending on the hot and cold resistance levels)

## Photo On Location

Easy to use, easy to connect and easy to place.  
Curious to know more? Get in touch with us







# Off Grid Energy Solutions

## Model 45

With 45 kVA this hybrid generator has more power than Model 30. And that while the same 10 ft container is retained. For those who require a unit with more power within a limited space. Our backup generator can also run on low emission bio-diesel which results in low carbon footprint.

## Specifications and Performance

- 10ft container
- 60 kVA generator
- 45 kVA inverter
- Generator with 3 phase connection
- 6 solar panel on rotating arm
- Battery storage 30kWh lithium

**Possible saving and CO2 reduction up to 80%**

## Advice Price

On request. Prices may vary per country depending on the climate requirements (Depending on the hot and cold resistance levels)

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## Photo On Location

Easy to use, easy to connect and easy to place.  
Curious to know more? Get in touch with us





# Off Grid Energy Solutions

## Model 100

Thanks to its 100kVA, our largest hybrid generator is an all-rounder for the heavier work. With its 20-ft container, there is more room for solar panels, which means that the efficiency is also better. Our backup generator can also run on low emission bio-diesel which results in low carbon footprint.

## Specifications and Performance

- 20ft container
- 100 kVA generator
- 100 kVA inverter
- Generator with 3 phase connection
- 20 solar panel on rotating arm
- Battery storage 110kWh lithium

**Possible saving and CO2 reduction**  
up to 80%

## Advice Price

On request. Prices may vary per country depending on the climate requirements (Hot and Cold resistance levels)

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## Photo On Location

We can also develop the Green Generator completely custom-made for you. As a one-stop shop, we house all the necessary services to ensure that the development process runs smoothly. The entire process runs within our own organization, so you will be closely involved in the development of your own product.

We have already developed various modules, such as a 4G mast, shed shack or water treatment unit. But of course also a container with its own company colour, logo and specific dimensions are possible. Please, do not hesitate to contact us for a specific wish





## Business Case: Off-Grid “Island Mode ”Micro-Grid

Solar Panels delivering the complete energy demand for the resort of “Marker Wadden”



The battery package and a solar field are making a mini-grid more efficient. The energy that is not directly used will be stored in the battery pack. The overcapacity will be used when it is needed. The system has 300 solar panels that will deliver enough energy during the winter. In this way is it possible to make an island self-sufficient.

**Technical details: On request**

Base Principle: Completely autonomous power supply without using fossil fuel

Overall blueprint: Sustainable customized island with semi-permanent residence

### Challenges:

- Energy production for the entire Island
- Energy storage

### Solution Offered:

- Energy yield with the input from solar panels & Energy management system
- Lithium-iron battery storage system
- Emergency power backup generator running on HVO biofuel







## Lighting Towers

MARU lighting towers are crafted for construction, mining, events or any other sector where off grid lighting surveillance is a need

### QubePower Mini

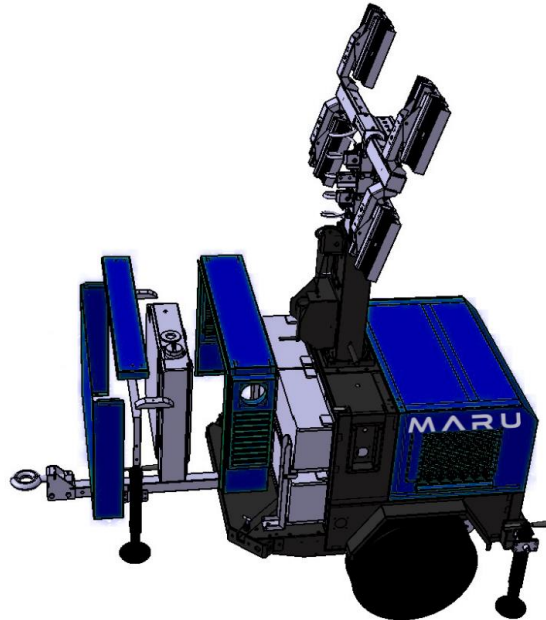
QubePower Mini is Ideal for emergency lighting. It's easily handled and pushed by one person. Can also be mounted on the bed trucks or tractors

### Specifications and Performance

3 mt mast  
Petrol engine 0.75kVA  
4x100W LED  
Manual winch; single axle

### Advice Price

From € 5000



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### Qube Power

8mt mast  
Air cooled engine - 3.5kW  
4x200W LED  
manual winch; single axle

### Advice Price

From € 9000





# Lighting Towers

## QubePower Hybrid MAX

### Specifications and Performance

- 8mt mast
- Water cooled engine 3.5kW
- 4x300W LED
- Hybrid system; manual winch
- Single axle

### Advice Price

From € 13000



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## Wind Tower

- 8m tower
- Portable and easy to position at worksite
- Up to 5 kW wind turbine possibilities
- Connection to Battery-pack and MESU units and Stand Alone unit whit output 110V, 120V or 230V 1 phase

### Advice Price

On Request





## Lighting Towers

### Solar Wind Lighting Tower

- A mobile 13 meter high wind turbine equipped with Solar
- Foldable solar panels and easy to position at worksite
- Solar and battery powered with external charging option
- As Heavy Solutions, this can be illuminated up to 13m high and more than 5000m2 with 1 mast.
- It will offer around 9 hrs for 4x100w LEDs on a full charge of battery And a day of charging (fully discharged) will give around 4 hours of backup for 4x100w led
- The panels will fold down for travel. The panels are gas spring assiste

#### Technical Specifications and Advice Price

On Request



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### Solar Lighting Tower

- 8 meter height wind tower equipped with surveillance light
- Portable and easy to position at worksite
- Up to 5 kW wind turbine possibilities

#### Technical Specifications and Advice Price

On Request







## Contact Details



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