



## 5 MW MTG UNIT WITH TRASFORMER



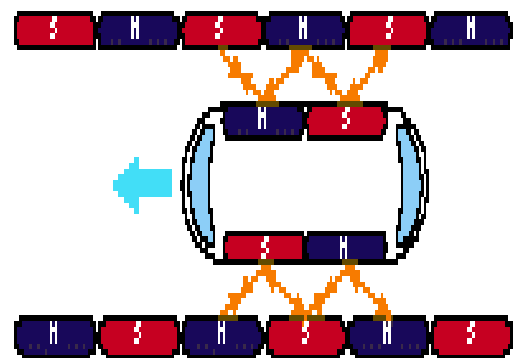
**&  
Solar  
Booster**



# What is Magnetic Transducer Generator(MTG)



It is a Magnetic Generator that drives its rotation from permanent magnet discs and induction coils placed in such a fashion as to exert pull and push forces similar to that of magnetic levitation train. After initial start up by 12 V battery like a car, MTG needs no outside input thereafter and operates as stand alone system.



**Noca Clean Energy has developed a technology that will redefine the electrical energy generation sector. The Magnetic Transducer Generator (MTG) provides access to an inexpensive, continuously available, and non-polluting method for generating electrical energy in a format that is applicable in both small and large-scale, fixed and portable, energy scenarios.**

**The MTG is currently available in several models with generation capacities starting at 5 MW respectively, and is easily customizable to larger scales.**

**Flexibility and functionality are two key elements of the MTG technology that make it ideal for many energy generation scenarios. The MTG can be affixed to existing energy grids as a method to improve energy efficiency in urban areas, or used to develop mini-grids in rural areas that lack access to energy.**

**The MTG can also function as a standalone energy source for mining companies, medical facilities, research centers, construction firms, as well as other industrial and commercial enterprises operating in remote locations.**

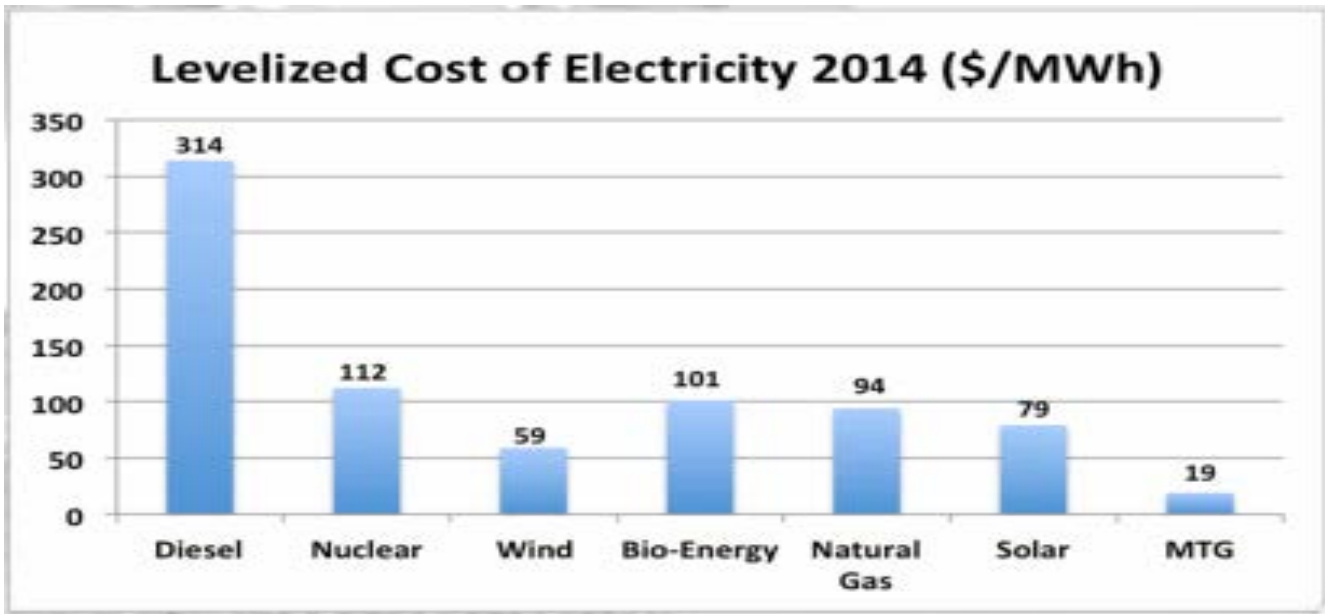
### **Potential Applications:**

#### **Utilities (grid and mini-grid):**

**The MTG is the ideal technology to affix to existing energy grids as a method to improve energy efficiency, increase energy capacity, and to ensure reliable, clean, and continuous energy in urban areas. The MTG is also suitable for developing mini-grids in rural areas that lack access reliable, clean, and efficient energy. Noca Clean Energy is building strategic partnerships with utility providers that are suitable for adopting MTG units into their energy mix or to have a complete MTG power plant.**

**Commercial and Industrial Ventures(off-grid): The MTG also provides a highly efficient and practical solution as a standalone energy source. Due to the low cost, versatility, and portability of the technology, Noca Clean Energy is targeting mining companies, research centers, medical facilities, construction firms, as well as other commercial and industrial enterprises operating in remote locations as ideal customers.**

- **More cost-effective per kWh than all other (conventional and alternative) sources of energy.**
- **Scalable according to the requirements of any demand load.**
- **Versatility, can be used in both indoor and outdoor applications and at high and low temperatures and altitudes.**
- **Offers unparalleled portability when compared to traditional oil and gas.**
- **Decentralized, requires no connection to existing infrastructure to operate.**
- **Emits zero harmful radiation or emissions.**
- **Low vibration with no noise disturbance**
- **The Magnetic Transducer Generator requires no fuel and emits no waste energy in the Form of heat.**



The MTG is available in 5 MW and scalable to any capacities . The MTG contains a number of rotors; each attached to a central spinning shaft. Each shaft is comprised of a series of discs with magnets attached to the perimeter of each disc.

A small source battery provides the initial voltage that engages the rotors. As the rotors spin, each magnet on the disk passes a series of copper coil assemblies that are fixed at the same rotational height to the interior of the surrounding chassis. Each coil assembly is coupled with an electronic circuit unit that collects all output and directs a portion of the voltage back to the source battery to maintain rotational charge; excess voltage is usable output.

## Salient Parameters

**Operational Life:** Over 30 Years

**Delivery Time:** First 5 MW Unit in 9 Months

**Project Completion Time (Turn Key Basis):** 12 Months for over 100 MW Plant

**Warranty:** 5 Years from date of shipment



#### Efficiency Under Different Running Loads:

Running Load	Efficiency
25%	94.1%
50%	96.3%
75%	96.9%
100%	97.0%

#### Unit Dimensions of 5 MW Unit:

- **Weight: 2.4 Tons**
- **Maximum Height: 91 inches**
- **Diameter: 79 inches**
- **Structure: Aluminium**
- **Colour: Light grey (NCS 2703-G84Y)**

#### Technical Specifications:

- **Output Power Capacity: 5 MW/4.9 MVA**
- **Maximum Configurable Power: 5 MW/4.9 MVA**
- **Nominal Output Voltage: 480V, 3PH**
- **Output Voltage Distortion: Less than 5% at Full Load**
- **Output Frequency(sync to mains): 60 Hz – Programmable= $\pm$ 0.5/1/2/4/8%**
- **Crest Factor: Unlimited**
- **Topology: Delta Conversion On-Line**
- **Wave Form: Sine Wave**
- **Output Connection: (1) Hard Cable 4-Wire (3PH+G)**
- **External Static Bypass.**

#### Environmental Specifications:

- **Operating Temperature: -60 to +90 C**
- **Operating Relative Humidity: 0 – 95%**
- **Operating Elevation: 0 – 999.9 Meters**
- **Storage Temperature: 0 – 15000 Meters**
- **Audible Noise at 1 Meter from Surface of Unit: 74 dBA**

- **Online Thermal Dissipation: 1100 BTU/Hr**
- **Protection Class: NEMA 1 With NMEA 12 Optional**
- **Conformal Regulatory Approvals: cUL Listed, FCC Pat 15 Class A, ISO 14001, ISO 9001, UL 1778, UL Listed**

### **Transformer With Regulator:**

**Power is produced in AC and can be converted into DC by the supplied Transformer, if required. The MTG is supplied both with Transformer and Regulator as a package.**

### **Maintenance:**

**Routine maintenance ensures efficient power generation with no down time. A life time maintenance contract tailored to meet specific organizational needs of the Purchaser is available.**

## **Price/Project Options**

**Various project options like Turn Key Project, Power Purchase( 20/25 Years ), Plant Rental (5/10/15 Years) are possible. Terms of each option and prices can be provided on request.**

## **Procedure To Visit Operational MTG Unit**

**A visit to an operational MTG unit/plant in Canada/else where is possible. To process such a visit following documents are required from the interested Party at least one month prior to proposed date of such a visit .**

- 1. LOI on letter head of the company.**
- 2. Signing of the NDA.**
- 3. Copy of passport of the visiting person/persons.**

## **Solar Booster**

**The Power Booster is an electronic device that has been invented and developed by Noca Clean Energy and their partners. In order to improve and increase power efficiency output by 42- 52 % for a PV Solar Power, and Wind Mill turbines. The devices can be integrated into an electric power converter system, which usually provides voltage, current conversions, filtering, and regulating various loads, such as; Power grids, batteries, or motors using the magnetic flux and levitation form of technology.**

### **Technical Specifications: EFE Power Booster**

**The EFE Power Booster is designed to increase the output of a Photovoltaic (PV) panel by an average of 45%, thus significantly increasing the overall output of a PV system. The EFE Power Booster is compatible with all commercially available PV panels used in small (household), medium (commercial), and large (solar farm) PV systems. The EFE Power Booster is a retrofit that enables the production of more energy per PV module without increasing the environmental footprint of the overall system, effectively offsetting footprint of 45% the additional panels.**

**Battery Voltage 12V / 24V / 48V Auto Select**

**Maximum Battery Current 12A | 15A**

**Maximum PV power: 12V 300W (Booster range 10-75V)**

**Maximum PV power: 24V 450W (Booster range 15-75V) Maximum PV power, 48V 600W (Booster range 24-75V) Maximum PV open circuit voltage 75 V**

**Power Output efficiency on load: 145%**

**Self-consumption 11 mA**

**Charge Voltage 'absorption' 15.3V / 22.4V / 30.6V Charge Voltage 'float' 14.1V / 21.7V / 28.2V**

**Temperature Compensation -24 mV/oC , -28mV/oC , -32mV/oC (solar farm) PV systems.**

**The EFE Power Continuous/peak load current 15 A/ 45 A/60 A**

**Operating Temperature -30oC to +75oC (full rated output at 45oC)**

**Storage Temperature: -35oC to +75oC increasing the environmental footprint of the**

**Humidity: 100%, non-condensing**

**Colour: White**

**Power terminals: 6 mm<sup>2</sup> / AWG10**

**Weight: 0.45 Kg**

**Dimensions: (H x W x D) [inches] 1.00 x 3 50 x 3.50**

**Warranty: 1-year exchange**

**Price Per Unit: \$ 120**



## Product Highlights:

- Increase output of each PV module by 45%
- Accelerate PV system payback
- Offset carbon footprint of additional panels
- Produce more energy with less space
- Maintain maximum performance in any weather condition
- Small, durable, waterproof housing and lightweight design
- Compatible with all solar panels
- Easily retrofit into pre-existing installations

## Websites:

1. [www.nce.energy](http://www.nce.energy)
2. [www.powertubepakistan.com](http://www.powertubepakistan.com)

A handwritten signature in black ink that reads 'Arshad Ali'.

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