

GENERAC

# Guardian

17KVA NATURAL GAS GENERATOR

**MORE POWER  
MORE PROTECTION**



**Quiet,  
Compact,  
and Cleaner**

**GENERAC®**

# Generac: Group Profile

Generac is a leading energy technology company that provides advanced power grid software solutions, back up & prime power systems for home & industrial applications, solar + battery storage solutions, virtual power plant platforms & engine-and-battery-powered tools, and equipment.

Founded in 1959, Generac introduced the first affordable back up generator and later created the category of automatic home standby generator - a market in which nearly eight of ten generators sold is a Generac.

The company is committed to sustainable, cleaner energy products poised to revolutionize the 21st century electrical grid.

Generac is listed on the New York Stock Exchange.

Our stationary, portable and mobile generators are designed with single-engine outputs ranging between 800W and 3,250kW. We have the ability to expand the power range for certain stationary generator solutions to much larger multi-megawatt systems through an integrated paralleling configuration called Modular Power Systems (MPS).

In pursuit of Global Leadership, with the intent of being local in strategic markets, in 2019 Generac acquired a majority stake in Captiva Energy Solutions Pvt Ltd., India. Captiva has been in Generator business for over a decade, having in-depth experience of the Indian market and presence across the country through its offices and dealers.

Captiva represents Generac in India, and the Captiva team is entrusted in operating Generac Group's Gas Generator and other energy businesses in India.



# Government Compliance



Generac is committed to be compliant to local norms and statutes, in every place they conduct business. In India, one of the most regulated countries for Gas Generators, Generac has invested in obtaining applicable certifications, including:

- Component Level Safety Certification as stipulated by PESO
- Emission Compliance Type Approval Certification as stipulated by CPCB VI+
- Noise Level Compliance Type Approval Certification as stipulated by CPCB VI+

\* To view the above given compliance certificates, please contact sales: [info@captivaenergy.co](mailto:info@captivaenergy.co)

# The Generac Technology

Generac's gaseous fuel generators can be used to meet local code requirements and the unique back up power needs for every business. Generac gaseous generators are powered by cutting-edge Generac® engines, designed to run on gaseous fuels and optimized for emergency standby applications.

<p><b>Compact:</b> Small footprint with best-in-class gaseous power density.</p>	<p><b>Fast Response:</b> Gas rich-burn technology allows steady and cleaner power.</p>	<p><b>Single source:</b> Dependable design, testing, service, etc.</p>	<p><b>Quick Start:</b> Restores electrical power within seconds from an outage.</p>
<p><b>Smart Controls:</b> Single unit to fuel optimization and predictive failure.</p>	<p><b>User Friendly:</b> Built-in diagnostic and ease of servicing.</p>	<p><b>Versatile:</b> Designed to operate under harsh temperature, humidity and altitude factors.</p>	<p><b>Affordable to own:</b> Low operating cost.</p>



# Sustainability

Cleaner, affordable, efficient

## THE SMARTEST FUEL CHOICE

- **Long run times:** Natural gas is supplied by a utility, refuelling is not an issue.
- **Cleaner fuel option:** Natural gas-fuelled engines emit fewer nitrogen oxides and particulate matter as compared to diesel, while also avoiding the fuel containment, spillage and environmental concerns associated with fuel storage.
- **Fuel reliability:** With natural gas, there's no site fuel storage and less ongoing maintenance.

REDUCED PARTICULATE MATTER

REDUCED SOX EMISSION

When equipped with the factory-provided 3-way catalyst, compared to traditional untreated Diesel engines!

**Long run times during outages:** Since no propane only natural gas is supplied by a utility with underground pipelines, it is rarely impacted by weather and the flow of fuel is largely secure. With proper maintenance our gas standby generators can often run for weeks and months. For diesel generators, the fuel supply typically ends after three days. And during a crisis, fuel deliveries are often delayed or nonexistent, making Natural gas a more reliable choice of fuel.

**Lower maintenance:** In diesel generators, the required low sulfur diesel gas needs to be re-conditioned or polished every 12 months to ensure impurities don't impact fuel flow. This is not a concern with natural gas.

# Commercial Places

## Average per minute sales in Retail stores:

- INR 5,000 of average sales numbers per minute during peak hours in a retail store. \*
- Loss of power means: Loss of revenue and customer satisfaction.
- Can be fitted anywhere. No need to dedicate a valuable space at retail store.
- Cost – effective against DG sets and larger size UPS.
- Lower operating cost compared to DG sets.

## Average per minute sales in eateries:

- INR 200 of average Sales per minute per store. \*
- Loss of power means: Loss of revenue and customer satisfaction.
- Can be fitted anywhere. No need to dedicate a valuable space at retail store.
- Cost – effective against DG sets and larger size UPS.
- Lower operating cost compared to DG sets.

## Offices and MSEs:

- **Offices:**  
ATMs, server room, lighting load.
- **MSEs:**  
Continuous back up power for continuous production / service leads to growth in business.

\* Source: [www.businessinsider.in](http://www.businessinsider.in) and [www.mopng.gov.in](http://www.mopng.gov.in)

# Healthcare

## Provide Back up power for Pathology Laboratories:

- Sample storage inside fridge / cold storage.
- Value can't be measured for Sample and medicines.

## Back up power resources for Small and Large Hospitals:

- Area illumination.
- Air conditioning.
- Ventilation.
- Electronic devices for Data recording (very crucial for Super Specialty Hospitals).

# Household



## Household power can be disrupted due to:

- Climatic conditions like cyclones, storms, heavy rainfalls, etc.
- Any development work by local authorities.
- Maintenance by power distribution company.
- Power shortage due to low power production (Priority segment is industry).



## Impact of Power outage at household

- Household works get impacted (drinking water, refrigeration, water for other purposes).
- Comfort is sacrificed at home - with consequences such as low output at work, health issues for babies and elderly people at home exposed to extreme climatic conditions, with no power for air-conditioning.
- Continuous power availability and peacefulness at home are disrupted.

# Industrial



- Perfect back up power solutions for small load applications like server room and small independent factory specific data room.
- Lighting loads – especially during the night's operations and holidays.

- CPCB VI+ approved solution.
- Small footprint.
- Lower operation and maintenance cost.
- DIY (do-it-yourself) servicing is possible within the factory by trained employees.\*

\* Please contact the authorized person / dealer for training.



# Telecom Towers



- Meets applicable regulatory standards.
- Daily monitoring not required to check the fuel level.
- Flexible installation, effective for metro cities where space availability is an issue.
- Lower owning and operating cost, compared to generators of similar range.

# Help Protect Your Home, Family, Business & Industry

We are all spending more time at home these days. Our homes have become our offices, schools, gyms – our sanctuaries. That's why there's no better time than the present to prioritize your family's comfort and security by purchasing and installing a Generac home standby generator. It stands guard, ready to provide back up power to your home in the event that utility power fails. Generac gas generators can provide you with power for lights, water, heating, cooling to help you protect your family, home, and business.

## Here's how it works:

- 1 UTILITY POWER IS LOST**  
Perhaps there is a storm. Maybe the electrical grid failed. In any case, the electricity you depend on is suddenly gone.
- 2 YOUR SYSTEM DETECTS THE PROBLEM**  
Within seconds, your generator prepares to restore your home's power.
- 3 YOUR GENERATOR TURNS ON**  
Whether you're home or away, within a few seconds, it is up to speed and generating electricity.
- 4 YOUR POWER IS RESTORED**  
The automatic transfer switch sends generator power to your home, and it will continue until utility power returns.
- 5 FUEL VERSATILITY**  
Guardian is a versatile gas genset. This product has been designed to run on both CNG and LPG, seamlessly.

### REQUEST A FREE QUOTE TODAY!

Limited time bonus offer available with purchase.

Call toll-free **1800-212-7600** or  
visit **[captivaenergy.co/guardian.html](https://www.captivaenergy.co/guardian.html)**



# Gas vs Diesel



# Gas vs Diesel

You may be debating between a gas and a diesel generator, for use, during power outages. Here are some key differences for you to know:



Genset Operation is approx 500 hrs/Year.



Cost of Diesel is considered as Rs 89.42/Ltr + 5% for Transportation, Spillage, Adulteration, Theft, Wastage.



Cost of IGL Gas is considered as Rs. 63/Sm<sup>3</sup>.

## Key Features of Generac Gas Gensets:

- Capability to start and load within 10 seconds.
- Block loading – Best in class. Compared to other available gensets upto 25 kVA.
- Response time as similar to Diesel Generators.

## Estimated OPEX

Parameters (in estimates)	Unit	Gas Genset (Generac)	Diesel Genset
Power Generation <sup>1</sup>	kVA	17	18
	KWe	14	14
Per Unit Cost of Installed Power	Rs/KWe	22.1	31.6
OPEX Per Hour <sup>2</sup>	Rs/hr	₹ 300	₹ 443
Annual Maintenance Cost <sup>3</sup>	Rs	₹ 8,000.00	₹ 15,000.00 <sup>4</sup>
Maintenance Cost Per Hour	Rs/hr	₹ 16.00	₹ 30.00
Total OPEX Per Hour	Rs/hr	₹ 316	₹ 473
Annual OPEX	Rs	₹ 1,58,000.00	₹ 2,36,458
<b>Estimated OPEX savings per year</b>	<b>Rs</b>	<b>₹ 78,458.13</b>	

## Estimated CAPEX

Parameters (in estimates)	Unit	Gas Genset (Generac)	Diesel Genset
Approx. Cost of New Genset	Rs	₹ 5,00,000.00	₹ 3,25,000.00
CAPEX with Future Compliance	Rs	₹ 5,00,000.00	₹ 3,25,000.00
<b>Additional Estimated Investment for Gas</b>	<b>Rs</b>	<b>₹ 1,75,000.00</b>	

## Estimated Return on Additional Investment <sup>5</sup>

Years	2.23	Hours	1115.24
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**\*Per unit Power generation cost from Gas Generator is lesser than Diesel Generator. Amid rising diesel prices, this difference will increase further.**

- 1 Electrical Power output
- 2 Based on 500 hrs / year
- 3 Based on data available on the market
- 4 Includes cost for Diesel polishing
- 5 Based on a Genset running approximately 500 hrs / year

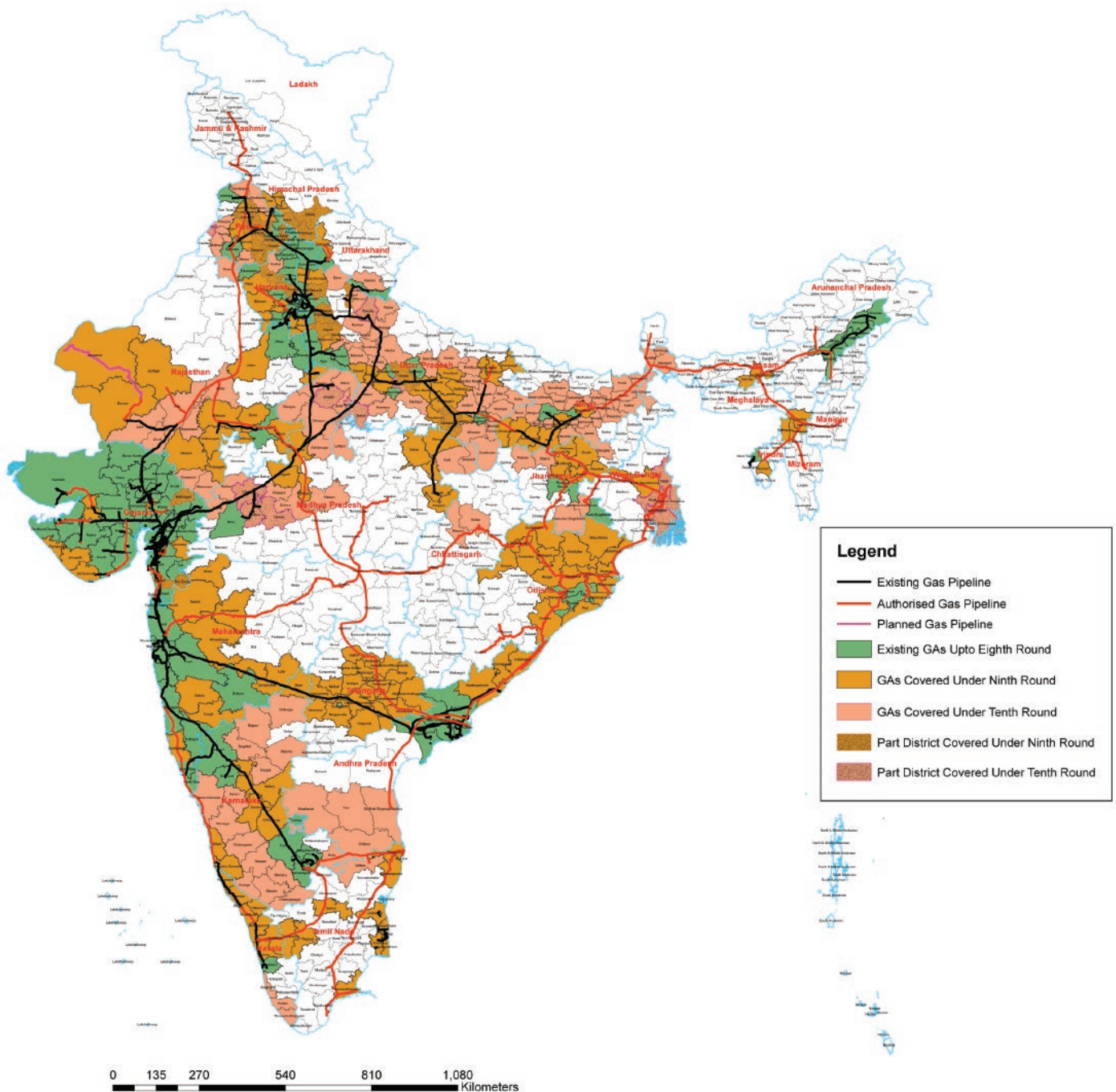
The assumption is based on comparison of market data for similar 25 kVA generators. \*\*Generac Gas Genset has been compared with other 25 kVA Diesel Genset available in the market. Standard small Diesel Gensets average load taking capability is 70% which makes it equivalent to Guardian 17 kVA Genset.

\* Source for OPEX and CAPEX figures: [www.goodreturns.in](http://www.goodreturns.in)

# Natural Gas: the fastest growing fossil fuel

India will emerge as the third-largest energy consumer behind the US and China by 2030, according to IEA's recently released India Energy Outlook. Natural gas is expected to be the fastest growing fossil fuel, in sync with the government's aim of developing a gas-based economy, raising its share from 6 per cent to 15 per cent by 2030.

## Gas Infrastructure Map of India



\* Source: <https://pngrb.gov.in/eng-web>

# Gas Generator Be Future Ready

## Advantages of Natural Gas – The Future Fuel:

- 1) Reduced Emissions compared to diesel. No PM in Exhaust, almost no SOX, and far lower emissions of carbon monoxide (CO), reactive hydrocarbons and carbon dioxide.
- 2) No Storage Required – Hassle free operation, No daily maintenance.
- 3) Billing for Natural Gas is done based on consumption thus no wastage.
- 4) Long Term Price Stability – Several initiatives from Government for in-house production – can also be produced from Biogas.

- Government of India targets to increase Natural Gas share from **7% to 15%.**\*
- Government of India is committed to become **Net Zero** by 2070 – Natural Gas will replace Diesel.\*
- Greater than 8,000 new CNG and LCNG stations across India by 2030.
- Greater than 10,000 Compressed Bio Gas units across India by 2030.
- US \$15 billion+ investment in the next 5 to 7 years.
- 51% of Geographical area and 55% of the population will come under Natural Gas network by 2030 – and 75% by 2035.
- National Gas grid formation - through major pipelines and 170,000 km steel pipe.
- Implementations of advance technologies –IoT, ERP, Smart metering, Data acquisition, GIS etc helping to reduce the cost of O&O for Gas operation.
- NGT guidelines – reduce the PM by 70% of standby Gensets.
- Increasing LNG capacity – from 39.5 MMTA to 72.7 MMTA.\*
- **15%** of all Telecom towers mandatorily need to convert / replace diesel generators with gas.\*

\* Source of figures: [timesofindia.indiatimes.com](https://timesofindia.indiatimes.com)



**Generac helps ensure our business continuity** when unexpected power outages impact on the day-to-day functions.

Interruptions in the supply of power can last for extended periods of time, affecting the use of essential services, such as heating, cooling and lighting, and as a result do not allow normal working activities, putting at risk the provision of services and the production and storage of products.

These gas fuelled solutions give us total peace of mind.

# Be prepared for the unexpected, choose Generac power solutions.

Guardian generator offers a great selection of supplementary products, which means we are able to design a back up power solution that's right for you.



## Load Transfer Switch

- One circuit box replaces traditional two and three-box setups, saving on installation costs and minimizing wall space requirements
- The power supply switching is carried out by means of 2 Contactors
- Compact enclosure, steel body with IP66
- Power output at 415V three-phase, 50 Hz
- Compatible with generators rated up to 70A
- Compatible with HBR Controller: 12Vdc Single Control signal

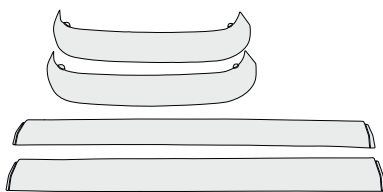


## Scheduled Maintenance Kits

A scheduled maintenance program helps you ensure the generator system is always in top operating condition and warranty requirements are being met. Scheduled maintenance kits provide all the hardware necessary to perform complete routine maintenance on the automatic standby generator. Oil must be purchased separately based upon manufacturer recommendations listed below. Maintenance is recommended at every 200 hours or 2 years.

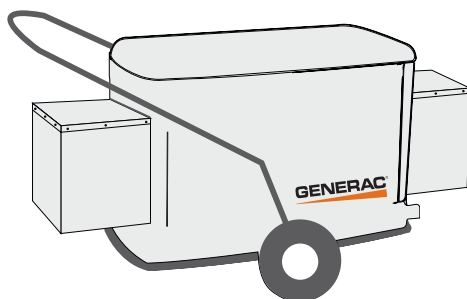
Kits include:

- Air Filter
- Oil Filter
- Spark Plugs
- Oil Funnel
- Chamois
- Reminder Sticker



## Wrap Kit

The fascia base wrap snaps together around the bottom of the new air-cooled generators. This offers a sleek, contoured appearance as well as offering protection by covering the lifting holes located in the base.



## Air cooled generator Transport Cart

The Generator Transport Cart is designed to allow a single individual to move and position any of the air cooled generators without the need for additional people or equipment.



# Powerful protection



Imagine ... your power goes out. You have no lights, hot water, refrigeration, heating, or cooling. This power outage could not have come at a worse time. Or your business could be impacted by data loss, inefficiencies that disappoint your customers. Living without power is unbearable and unsafe. Not to mention the other issues, including:

- **Limited communication:**  
No Internet or the ability to charge your mobile devices.
- **Modern electronics:**  
Televisions, microwaves, refrigerators, computers – all do not work.
- **Safety and security:**  
Security systems do not function.
- **Business activities would be interrupted:**  
No cash register, no freezer or food coolers, plant and machinery turn off.
- **No heating or air-conditioning systems**

So, what do you do? How long can you and your family or your business live without electricity before your safety and security are at risk?

Situations like this happen more often than you think and many want to prevent them. With Generac, you can. Generac offers the largest line of gas standby generators in the world and has more than 50 years of experience helping families and businesses protect themselves from utility power outages.

**Right now, there has never been a better time to invest in a standby gas generator.**

# Imagine your life without power?

- Refrigeration / freezer for food and medicines
- Furnace
- Air conditioning
- Lighting – inside and outside
- Clean water for drinking and bathing
- Sump pump
- Kitchen appliances
- Contact with the outside world: Internet, cell phone chargers, TV, radio and more
- Washing and drying clothes
- Security system
- Garage door opener
- Fans
- Charging power tools for use during the emergency and post-outage cleanup
- Monetary loss from temporary relocation, hotel costs, dining out, property damage, etc.

# Nothing's Built Like a Generac

Generators are often required to run for hours, days or even weeks at a time. Continuous use can cause a lot of strain on engines not specifically engineered to withstand extended run times. We have developed robust engine solutions to provide the reliability necessary to power through even the most demanding situations.



## True Power™ Technology

True Power™ technology delivers best-in-class power quality with less than 5% total harmonic distortion for clean, smooth operation of sensitive electronics and appliances.



## Tough, Durable Enclosures

Sturdy, all-weather enclosures made from either galvanneal steel or corrosion-resistant aluminum.



## Install Virtually Anywhere

Certified for natural gas operation at 0,9 kPa to accommodate municipalities with low gas pressure.



## Quiet Operation

Our patented Quiet-Test mode allows your generator to run weekly self-tests at a lower rpm, is quieter, and consumes less fuel.



## Smart, User friendly Controls

Generac's Evolution™ Controller features dual-line, multilingual LCD display allowing for easy monitoring of history and maintenance logs, as well as management of generator functions. Also features a built-in hour meter to monitor run times, provide information to determine maintenance intervals, and trigger reminders.



## Remote Monitoring

Mobile Link™ compatible, for wireless remote monitoring of your generator via your computer, tablet or smartphone.



## 5-Year Limited Warranty

We are proud of our innovative product design, high quality and first-class reliability so that is why we stand behind them with a strong 5-year limited warranty.



## Fuel Versatility

Guardian is a versatile gas genset. This product has been designed on run on both CNG and LPG, seamlessly.

### Guardian: 17kVA

	NG	LPG
Rated Power	17 kVA	18.4 kWm
Voltage	415	415
Phase	3	3
Engine RPM	3000	3000
Engine Model	OHVI / 999cc	G Force 1000
Fuel consumption 100% (m³/h)	7.02	4.17 kg/hr
Quiet-Test Mode	Yes	Yes
Noise pressure level @1m dB(A)	75	75
Load Transfer Switch	45 Amp	45 Amp
Enclosure	Aluminium (RHINO COAT)	Aluminium (RHINO COAT)
Enclosure Color	Bisque	Bisque
Warranty	5 years *	5 years *
Dimensions (L x W x H) mm	1673 x 675 x 733	1673 x 677 x 737
Generator Weight (kg)	220	220

\* Warranty to be checked locally.



**GENERAC**<sup>®</sup>



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