GreenX

SGT HydroEdge
Decarbonise Profitably

With Patented Controlled Hydrogen Fuel Assist Technology

THE NEXT GENERATION

HYDROGEN RECD

FOR DIESEL GENERATORS

Compliance where it matters.
Savings where it counts.

FUEL SAVINGS

2–12%

fuel savings*

UP TO

80%

PM reduction



For 25 to 2500 kVA diesel generator sets

Tested on real engines for 3+ years · NABL-accredited lab validation · R&D testing with ARAI
Two base units, configured for every DG capacity · Indian Patent No. 582824

* Typical range. Actual savings vary with DG size, engine condition, load profile and operating conditions. Representative visual.
RECD authorisation for DG sets below 800 kW is in process; for DG sets above 800 kW, GreenX is offered as an RECD.

WHY DG OWNERS NEED MORE THAN JUST AN RECD



Diesel generator operators face rising pressure from regulations, fuel costs and sustainability expectations. Meeting compliance is no longer enough: profitability and sustainability must go hand in hand.

- TIGHTER REGULATIONS
- RISING DIESEL COST
- ESG & SUSTAINABILITY
- CARBON REPORTING

> **You need a solution that keeps you compliant and also saves fuel, cuts carbon and protects the engine. That's where GreenX makes the difference.**

POST-EMISSION RECD vs GREENX

POST-EMISSION RECD

(filters / after-treatment devices)

- Treats pollutants after combustion.
- Adds exhaust back-pressure that can affect engine efficiency.
- Effectiveness drops at low exhaust temperatures or low engine loads.
- Does not reduce fuel consumption.
- Does not improve combustion efficiency.
- No IoT, data or carbon reporting.

GreenX

- Improves combustion before pollutants form.
- Saves fuel: typically 2–12%*, across the operating range.
- Reduces PM, NOx, CO and HC.
- Lowers CO_2 in proportion to the diesel saved.
- Works at all loads and conditions, alongside existing RECDs.
- Fully IoT-connected: GreenVision data, alerts and carbon reports.

GREENX IMPROVES COMBUSTION — LOWERING EMISSIONS, FUEL USE & CO_2

COMPLIANCE THAT PAYS YOU BACK

* Fuel savings typically range between 2–12%. Actual savings depend on generator size, engine condition, maintenance, load profile, RPM, duty cycle, ambient conditions and operating practices.

SAFE BY DESIGN

No gas is stored: GreenX makes small, low-pressure volumes only while the DG runs and stops the moment the DG stops. SGT OS checks pressure, temperature, current, battery and water level every second and halts production if anything is out of range.

SGT HydroEdge

Decarbonise Profitably

GreenX

SGT HydroEdge
Decarbonise Profitably

ONE INTELLIGENT SYSTEM.

MULTIPLE BUSINESS BENEFITS.

GreenX™ is engineered to deliver compliance, savings and sustainability in one intelligent, industrial-grade solution.

CONTROLLED HYDROGEN FUEL ASSIST (CHFA™) TECHNOLOGY

ONLY INPUT: DM WATER ALMOST FREE TO OPERATE

FUEL SAVINGS



COMPLETE TELEMATICS & REPORTING VIA GREENVISION

CARBON REDUCTION

COMPACT — BESIDE THE DG

INSTALLED IN 4–6 HOURS*

GreenX · 25 to 2500 kVA
Two base units, configured for every DG

REMOTE MONITORING & SUPPORT

INDUSTRIAL-GRADE RELIABILITY

CO_2 REPORTING

INCREASED UPTIME
Real-time alerts and predictive service keep the DG running.

LOWER O&M COST
Less diesel per kWh. The only input is DM water from time to time.

HIGHER EFFICIENCY
More kWh from every litre of diesel, across the load range.

SUSTAINABLE FUTURE
Lower CO_2 and verified carbon savings through GreenVision MRV.

BUILT FOR TRUST
Patented, lab-validated, ARAI R&D-tested, made in India.

TOGETHER, LET'S CREATE A CLEANER, MORE EFFICIENT AND PROFITABLE TOMORROW.

GREENX WORKS AT ALL LOADS. ALL CONDITIONS.
IMPROVES COMBUSTION. SAVES FUEL. CUTS CO_2.

GreenX

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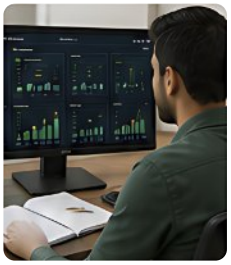
YOUR GREENX JOURNEY
PARTNERING FOR PERFORMANCE

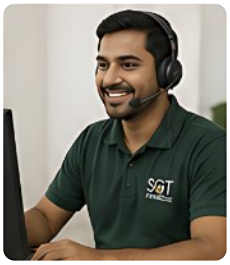
From assessment to continuous optimisation, SGT HydroEdge is with you at every step to ensure measurable results and long-term value.

- FUEL SAVINGS 2–12%*
- PM REDUCTION UP TO 80%
- CO_2 REDUCTION WITH FUEL SAVED
- LOWER SMOKE
- LOWER CO, HC & NOx
- IMPROVED ENGINE LIFE

1. ASSESSMENT
2. RECOMMENDATION
3. INSTALLATION
4. PERFORMANCE REVIEW
5. GREENVISION MONITORING
6. CONTINUOUS SUPPORT





OUR COMMITMENT TO YOU

- Reliable Technology
- Expert Support
- Measurable Results
- Sustainable Future

YOUR AUTHORISED GREENX DISTRIBUTOR / PARTNER

Distributor stamp / card

Distributor Name : _____

Address _____

Phone _____

Email _____

Website _____

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CERTIFIED ISO 9001:2015 COMPANY

PATENTED

INTELLECTUAL PROPERTY INDIA

SGT HydroEdge
Decarbonise Profitably
Emission & Fuel Reduction Solutions

GreenX™ — DG Retrofit Data Sheet · 25 to 2500 kVA

SGT HydroEdge · Retrofit for diesel generator sets

TWO BASE UNITS

Each GreenX model uses one or more base units, set by the DG's air intakes and engine size.



COMPACT UNIT

Size L×W×H	**380 × 320 × 360 mm**
Empty / filled	**22 / 30 kg**
Inputs	**Battery · RS485 · CAN***



LARGE UNIT

Size L×W×H	**420 × 500 × 360 mm**
Empty / filled	**38 / 50 kg**
Inputs	**Battery · RS485 · CAN***

DG rating (kVA)	GreenX model	Typical power (W)	Water use (h / L)	Power supply (DC)
25	GreenX-25	80	28.0	12 V
30	GreenX-30	100	27.0	12 V
40	GreenX-40	120	25.0	12 V
50	GreenX-50	150	23.0	12 V
58.5 / 60	GreenX-60	170	22.0	12 V
82.5	GreenX-80	200	20.0	12 V
100	GreenX-100	220	19.0	12 / 24 V
125	GreenX-125	260	18.0	12 / 24 V
160	GreenX-160	300	17.0	24 V
180	GreenX-180	350	16.0	24 V
200	GreenX-200	400	15.0	24 V
250	GreenX-250	500	14.0	24 V

DG rating (kVA)	GreenX model	Typical power (W)	Water use (h / L)	Power supply (DC)
320	GreenX-320	600	13.0	24 V
380 / 400	GreenX-400	800	12.0	24 V
500	GreenX-500	900	9.5	24 V
625 / 650	GreenX-650	1,000	8.5	24 V
750	GreenX-750	1,100	8.0	24 V
1010	GreenX-1000	1,200	7.5	24 V
1250	GreenX-1250	1,300	7.0	24 / 48 V
1500	GreenX-1500	1,500	6.5	24 / 48 V
1700–1800	GreenX-1800	1,600	6.0	24 / 48 V
2000	GreenX-2000	1,800	5.5	24 / 48 V
2500	GreenX-2500	2,000	5.0	24 / 48 V

IMPORTANT INSTRUCTIONS:

- Select the GreenX model by the DG set's rated (nameplate) kVA, irrespective of its typical operating load. Each capacity has its own SGT settings.
- Each GreenX model is built from compact and / or large base units, used singly or in multiples depending on the number of air intakes and engine size.
- Use DM (demineralised) water only. A built-in filter protects the system, but sustained use of non-DM water will damage it.
- Each unit has an internal water tank (5 L on the compact unit) and can be extended with an external tank of up to 100 L.
- Power is drawn from the DG batteries. If they are not in good condition, SGT supplies an AC-to-DC converter of the right rating on request.
- Systems supplied for India carry India-specific settings and stop working if moved out of India. Export units are supplied with different settings.
- * Conditions apply: gas output follows the DG's load only when the DG controller or energy meter is connected to the system over RS485 or CAN. Otherwise an optimal constant gas flow is set for the model.

GREENX WORKS AT ALL LOADS. ALL CONDITIONS.

IMPROVES COMBUSTION. SAVES FUEL. CUTS CO_2.

GreenX™ — Technical Specifications, Selection & Service

SGT HydroEdge · Indian Patent No. 582824

Controlled Hydrogen Fuel Assist (CHFA™)
Retrofit for diesel generator sets

GENERAL TECHNICAL SPECIFICATIONS

Technology	Patented Controlled Hydrogen Fuel Assist (CHFA™)
Application	Diesel generator sets, 25 to 2500 kVA
Base units	Compact 380×320×360 mm · Large 420×500×360 mm, used singly or in multiples
Gas generation	On-demand hydrogen-oxygen (HHO) from DM water
Gas storage	None — gas generated and consumed on demand
Engine interface	Gas introduced through the engine air-intake system (single or multiple intakes)
Engine modification	None required
DG frequency / speed	50 / 60 Hz · 1500 / 1800 RPM*
Engine type	Naturally aspirated / turbocharged diesel engines*
Control system	SGT OS — varies hydrogen flow with DG load*; otherwise an optimal constant flow is set for the model
Data inputs	RS485 and CAN, from the DG controller / energy meter*
Safety checks	Pressure, temperature, excess current, low battery and water level, every second
System operation	Automatic start / stop linked to DG operation
Data connectivity	4G IoT; GreenVision enabled (SIM embedded)*
On-site setup	SGT OS app over Bluetooth — no network needed
Data logging	Local and cloud operational data logging
Gas pressure	Low-pressure, on demand; no pressurised storage

SELECTION, INSTALLATION & SERVICE

Model selection	By the DG's nameplate kVA rating, irrespective of operating load
Selection example	100 kVA DG → GreenX-100 · 125 kVA → GreenX-125 · 200 kVA → GreenX-200
Undersizing	A lower-rated GreenX must not be installed on a higher-rated DG
Installation location	Beside or within the DG installation, as specified by SGT
Typical installation	4–6 hours*
Electrical connection	DG battery (12 / 24 / 48 V DC by model), DG run signal and RS485 / CAN data*
Water	DM water only; refill interval by model (see data sheet)
Water tank	Internal tank, extendible to an external tank of up to 100 L
Routine operation	Automatic; no intervention beyond prescribed checks and refilling
Routine inspection	Water level, connections, hoses and electrical system
Maintenance	Preventive, at SGT-prescribed operating-hour intervals
Remote support	Diagnostics, alerts and performance reports through GreenVision
Service support	Through SGT HydroEdge and authorised distributor & service network
Warranty	1 year standard, subject to SGT warranty terms
Carbon reporting	GreenVision MRV layer for verified carbon savings
Relocation	Reinstallation carried out or authorised by SGT / service partner

* Depending on model / configuration; load-following gas flow needs the DG controller or energy meter connected over RS485 or CAN. Specifications are indicative and subject to change.

COMPLIANCE THAT PAYS YOU BACK

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