



INDY

Energy Independent
Energy Efficient
Deployable Military Camps



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Efficient power production with thermal variable speed generator

Islanded mode operation

Louis GORINTIN,
NovaKamp

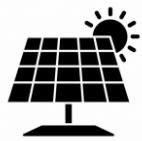
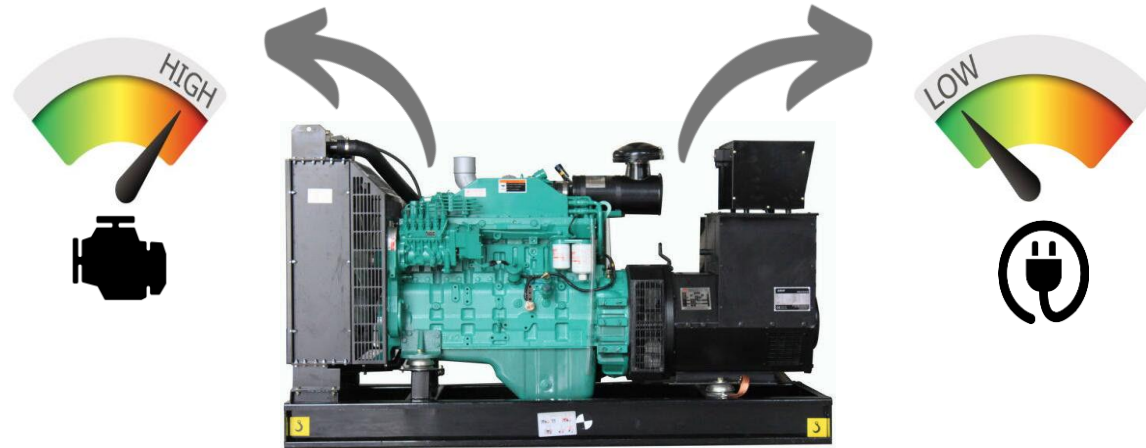
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NOT SENSITIVE

GenSet Main Challenges

Engine is constantly running at **high regime**

Average electrical **charge is low**



With local renewable energy input are increasing this demand for genset flexibility and capability for fast start and enhanced efficiency over the full range

CONSEQUENCES COSTLY AND HARMFUL



The engine **burns fuel inefficiently**, which significantly **increases fuel consumption**.











Increased fuel consumption and **poor engine operating conditions** significantly increase greenhouse gas emissions.



Expensive engines and exhaust gas conditioning systems require **frequent repairs and maintenance**, or even **premature failure**.

VSDEG technologies- SWOT analyses

Technology Name	Technology					
	Mechanical		Electronic			
	Continuously Variable Transmission (CVT)	Rotating-Stator Mode	Wound-Rotor Induction Generator	Doubly-Fed Induction Generator (DFIG)	Permanent Magnet Synchronous Generator	Super-Capacitor Diesel Generator (SCDG)
Strength	CVT Strength	RSM strength	WRIG strength	DFIG strength	PMSG strength	SCDG strength
	<ul style="list-style-type: none"> Savings up to 50% Low CAPEX Easy maintenance Same lifetime as engine 	<ul style="list-style-type: none"> Savings up to 20% No sophisticated electronics 	<ul style="list-style-type: none"> Savings up to 30% Low cost Distribution Risk Management 	<ul style="list-style-type: none"> Consolidated tech Low harmonics 	<ul style="list-style-type: none"> Well known 	<ul style="list-style-type: none"> Near Zero start Energy saving up to 40% Higher load acceptable temporary Better response to failure
Weakness	CVT Weakness	RSM Weaknesses	WRIG Weaknesses	DFIG Weaknesses	PMSG Weakness	Operations Management Processes
	<ul style="list-style-type: none"> Currently limited to 200 kW 	<ul style="list-style-type: none"> High maintenance Limited power to 85% 	<ul style="list-style-type: none"> Slow dynamics Sensible to thermal change Harmonic distortion 	<ul style="list-style-type: none"> Generate harmonic Sensitive to grid fault Technical maintenance of electronic Price 	<ul style="list-style-type: none"> Degradation of magnet Technical electronic maintenance 	<ul style="list-style-type: none"> High price Higher load and logistics
Supplier					  	

eV-Teknology 80 kW Diesel Genset

Tested by the French army and NATO

Maintenance similar to combustion Engine

Scalable

Extremely Quiet

Adapted to all climate

Get rid of bank load

Less sensitive to electronic Warfare

Available for tactical applications

Cut GHG emission

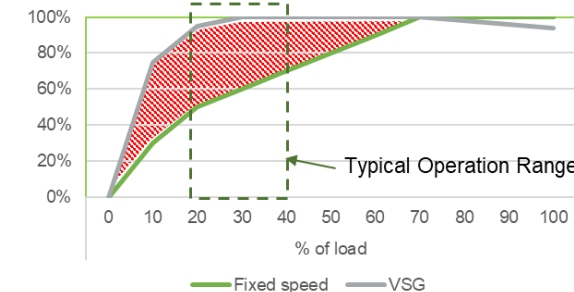
Adapted to F-52 & 63 or Green Fuel

Fuel savings %

% of load	Dimension of the genset				
	Right sized	10% oversized	25% oversized	50% oversized	100% oversized
100%	(2)%	1%	5%	13%	15%
75%	7%	12%	17%	25%	33%
50%	15%	28%	32%	37%	42%
25%	22%	43%	46%	48%	50%
-	60%	60%	60%	60%	60%

Denotes typical operation range in load % and genset dimension

Overall Efficiency VS % of load





NOVAKAMP
more than a camp

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Thank you!

Contact us.



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