## **Product Features**

#### **Excellent Environment Adaptability**

Adaptable to various environment conditions like high and low temperature, high humidity, inland, coastal areas and high altitude area





Bigger swept area per kilowatt, 50% enhanced capacity

# Highly Efficient Delivery Without Commissioning

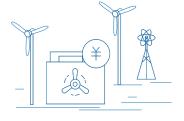
High and low voltage ride through Power factor range: -0.9 ~ 0.9

Integrated electric control cabinet, one-press startup, free commissioning on siteUnits in batch, short construction cycle (5 days/set)

## **Case Study**

increases unit reliability





#### Solution

Unit model: GW 1S
Hub height: 60m
Utilization of original facilities:
tower, foundation, collector network,
road, booster station

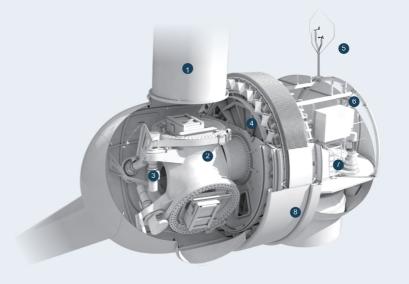
#### Client Earnings

Full load operation hour: 2700h Internal rate of return on full investment: 17% Payback period: 5 years

## **GW 1S Technical Parameters**

Specifications		
Parameter	Unit	GW 82-1.1MW
Operational parameters		
Rated power	kW	850-1100 <sup>+</sup>
Wind class	IEC	S
Cut-in wind speed	m/s	3
Cut-out wind speed	m/s	21
Designed service life	Year	≥ 20
Operating temperature	$^{\circ}$	-30°C to +30 (40) °C
Rotor system		
Rotor diameter	m	82
Swept area	m <sup>2</sup>	5281
Generator		
Туре	\	Permanent magnet synchronous generator
Rated voltage	V	720
Converter		
Туре	\	Full power conversion
Power factor regulation range	\	Capacitive 0.9 to inductive 0.9
Rated output frequency	Hz	50/60
Rated output voltage	V	690
Tower		
Tower type	\	Steel Tower
Hub height	m	50~70
Weight		
Maximum transportation weight of each unit	t	38
Dimension		
Blade length	m	40.3
Rotor (without blades)	m	4.57×4.6×3.92
Nacelle	m	4.21×4.09×3.9
Generator	m	Ф4.68×3.29
Cabin (integrated electric control)	m	6.0×2.9×2.8

- 1. Blade
- 2. Hub
- 3. Pitch system
- 4. Generator stator
- 5. Wind sensors
- 6. Hoist
- 7. Nacelle base
- 8. Generator Rotor





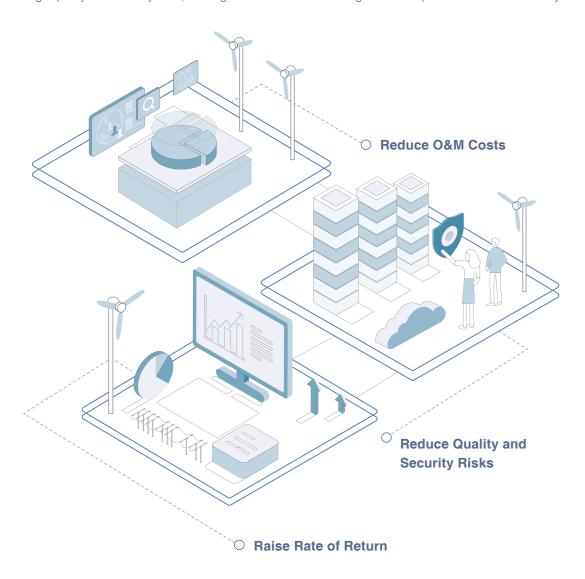
### **How to Revive an Old wind Farm?**



In the early phase, there are national policies giving strong support to the established wind farms where there are abundant wind resources and advantages in benchmark on-grid electricity price.

They are the pioneers and promoters of the development of wind power industry.

As the technology advances, units from early stages face pain points like low rate of return, high quality and security risks, and high O&M costs. There is significant scope for a boost in efficiency.

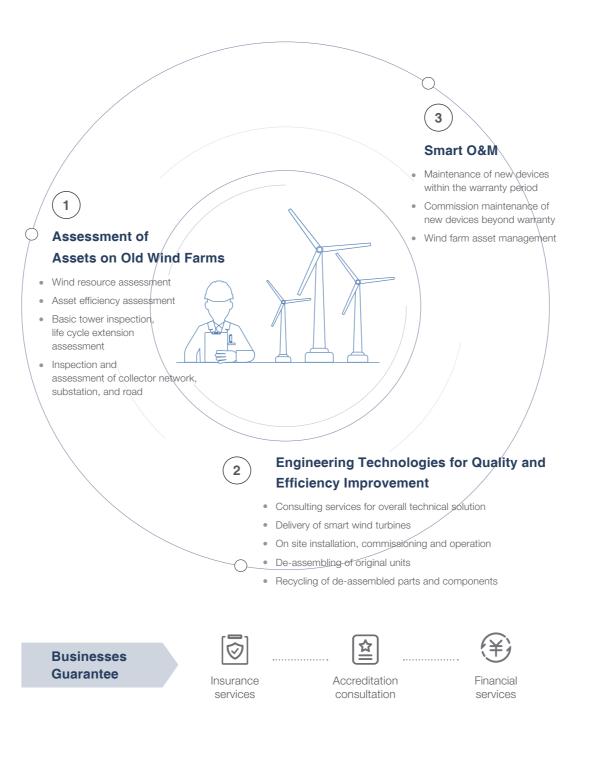


# One-stop Full Life-cycle Solution for Instant Renovation

Penetrating deep into wind resources, wind turbines, wind farms, and smart O&M, we set up the one-stop full life-cycle solution tailored for each old wind farm.

New components and new technologies are adopted to boost the capacity and to improve the quality and efficiency to the maximum extend.

Thus, risks and investment are reduced, and the rate of return of the project rises.



# Turn-Key Projects, Just to Save You From Troubles

