SG 4.7-155
Greater performance for low wind sites

SIEMENS Gamesa
RENEWABLE ENERGY

Expanding Siemens Gamesa 4.X to increase production & reduce LCoE

SG 4.7-155: an optimal solution for low wind sites based on Siemens Gamesa advanced engineering and expertise

Siemens Gamesa, your trusted technology partner

One of the key aspects to Siemens Gamesa's success is the continuous development of new and advanced products adapted to the business case of every customer. We strive to provide the best technological solutions for each project, while driving down the LCoE.

For this reason, we offer an optimized, streamlined catalog of proven solutions adapted to every type of site and condition, backed by:

- Our reputation as a trusted and stable partner (127.5 GW installed worldwide).
- A proven track record spanning more than 40 years that makes Siemens Gamesa a benchmark for wind projects.
- The recognition of the wind power sector.

New SG 4.7-155

The new SG 4.7-155 is the latest addition to the Siemens Gamesa product portfolio. A benchmark solution in the market for sites with low winds, this turbine is the result of the operational experience accumulated by the company in the 4 MW segment. We complete our portfolio with this new state-of-the-art solution incorporating a bigger rotor, which boosts energy production.

This turbine represents Siemens Gamesa's commitment to create value for our customers through the continuous development of new technologies that improve the performance, competitiveness and quality excellence. With the advanced control system, enhanced blade aerodynamics and structural modularity, successfully developed and proven both for the SG 5.0-132 and SG 5.0-145 turbine models, it incorporates the next generation of Siemens Gamesa blades with pultrude carbon profiles, offering our customers a better performance and high flexibility.

Proven Siemens Gamesa technology

The new SG 4.7-155 leverages the knowledge acquired through the development of our latest products and integrates innovative technologies to achieve higher efficiency and cost-effectiveness.

It relies on proven concepts with an extensive track record in the market, such as the combination of a three-stage gearbox (two planetary and one parallel) and a doubly-fed induction generator, which offer the higher levels of reliability. In addition to this, the inclusion of an optional premium converter allows us to comply with the most demanding grid connection requirements.

The new 76-meter blade, made of fiberglass reinforced with pultrude carbon, integrates innovative aerodynamics and the DinoTails® Next Generation technology, which guarantee the best balance between high energy production and reduced noise emission levels.

Greater efficiency and profitability

Designed to withstand up to 25 years at IEC class III sites, it also offers flexible power rating, depending on the noise requirements, temperature and electrical properties of the project, to offer a highly flexible and versatile product, able to be adapted to many different locations.

With more than 5% increase in AEP at low wind sites over the SG 5.0-145, this turbine becomes a benchmark in its segment for LCoE, profitability and, ultimately, high value for our customers.

A turbine model with flexible power rating to configure the optimal solution for each project

Technical specifications

General details	
Rated power	4.7 MW
IEC class	IIIB (25 years lifetime)
Flexible power rating	3.0-5.0 MW
Control	Pitch and variable speed
Standard operating temperature	Range from -20ºC to 45ºC (with de-rating) [1]

Rotor	
Diameter	155 m
Swept area	18,868 m^2
Power density	249 W/m^2

Blades	
Length	76 m
Airfoils	Siemens Gamesa
Material	Fiberglass infusion and carbon pultruded-molded components

Tower	
Type	Multiple technologies available
Height	91, 102.5, 120.5 m and site-specific

Gearbox	
Type	3 stages

Generator	
Type	Doubly-fed induction machine
Voltage	690 V AC
Frequency	50 Hz/60 Hz
Protection class	IP 54
Power factor	0.9 CAP-0.9 IND throughout the power range [2]

[1] Different versions and optional kits are available to adapt machinery to cold climate, saline or dusty environments.

[2] Power factor at generator output terminals, on low voltage side before transformer input terminals.

Spain
P. Tecnológico de Bizkaia, edif. 222
48170 Zamudio, Vizcaya

Calle Ramírez de Arellano, 37
28043 Madrid

Avda. Ciudad de la Innovación, 9-11
31621 Sarriguren, Navarra

onshoresales@siemensgamesa.com

Australia
Level 3, Botanicca 3
570 Swan Street, Burnley
Melbourne, 3121

Austria
Siemensstrasse 90
Vienna 1210

Brazil
Avenida Rebouças, 3970 - 5º andar
Pinheiros 05.402-918, São Paulo

Canada
1577 North Service Road East
Oakville, Ontario L6H 0H6

Chile
Edificio Territoria El Bosque
Avenida Apoquindo 2827, Piso 19
Las Condes, Santiago de Chile

China
Siemens Center Beijing, 2nd Floor
No.7 South Wangjing Zhonghuan
Road, Chaoyang District
Beijing 100102

500, Da Lian Road
Yangpu District
200082 Shanghai

Croatia
Heinzelova 70 A
10000 Zagreb

Denmark
Borupvej 16
7330 Brande

Egypt
90th North St - New Cairo
Section no. 1 - 5th Settlement
Building 47, Floor 4, Office 442
11835 New Cairo

Finland
Tarvonsalmenkatu 19
FI-02600 Espoo

France
Immeuble le Colisée
Bâtiment A – 2 ème étage
10 avenue de l'Arche
92419 Courbevoie

97 allée Alexandre Borodine
Cedre 3, 69800 Saint Priest

Germany
Beim Strohhause 17-31
20097 Hamburg

BCB business center in Kiel
Hopfenstr. 1 D
24114 Kiel

Mary-Sommerville-Straße 14
28359 Bremen

Greece
44 - 46 Riga Fereou Str.
& Messogion Ave
Neo Psychiko
Athens, 15451

India
No. 489, GNT Road
Thandalkazhani Village
Vadagarai PO, Redhills
Chennai 600052

Indonesia
Menara Karya, 28th floor
JL. HR. Rasuna Said Blok X-5
Kav. 1-2, Jakarta

Ireland
Innovation House, DCU Alpha
Old Finglas Road 11
Glasnevin, Dublin 11

Italy
Centro Direzionale Argonauta
Via Ostiense 131/L
Corpo C1 9° piano
00154 Roma

Via Vipiteno 4
20128 Milan

Japan
Otemachi First Square Tower
1-5-1 Otemachi

Chiyoda-ku
100-0004 Tokyo

Korea
Seoul Square 5th Floor 416
Hangang-daero
Jung-gu
Seoul 04637

Mexico
Paseo de la Reforma 505
Torre Mayor, 37th Floor
Col. Cuauhtémoc
Del. Cuauhtémoc
06500 Mexico City

Morocco
Anfa Place Blvd. de la Corniche
Centre d'Affaires "Est", RDC
20200 Casablanca

Netherlands
Prinses Beatrixlaan 800
2595 BN Den Haag

Norway
Nydalsveien 33
NO-0484 Oslo

Poland
Zupnicza street 11, 3rd Floor
03-821 Warsaw

South Africa
Siemens Park
300 Janadel Avenue
Halfway House
Midrand 1685

Sweden
Evenemangsgatan 21
169 79 Solna

Turkey
Esentepe mahallesi Kartal
Yakacik Yolu No 111
34870 Kartal
Istanbul

United Kingdom
Solais House – First Floor West
19 Phoenix Crescent
Strathclyde Business Park
Bellshill, ML4 3NJ

United States
11950 Corporate Boulevard
Orlando, FL 32826

Vietnam
14th Floor, Saigon Centre
65 Le Loi street
Ben Nghe ward District 1
Ho Chi Minh Cit

11/2022