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LIST OF SYMBOLS

Symbols	Details
k	Weibull shape parameter
c	Weibull scale parameter
v	velocity
v_m	Mean wind speed
v_{MP}	Most probable wind speed
v_{MaxE}	Wind speed carrying maximum energy
ρ	Rho
P	Power
A	Area
H	Height
D	Diameter
β	Overlap ratio
α	Aspect ratio
λ	Tip speed ratio
C_p	Co efficient of performance
$F(v)$	Cumulative distribution function
$f(v)$	Probabilty density function
P_{GS}	Power at generator shaft
P_{IS}	Power at intermediate shaft
P_{RS}	Power at generator shaft
σ	Standard deviation
$\Gamma ()$	Gamma function
V	voltage
I	current
T	Torque
f_s	Shearing stress of mild steel

LIST OF ABBREVIATIONS

ABBREVIATION	Full form
MNRE	Ministry of New and Renewable Energy
CEA	Central Electricity Authority
MW	Mega-Watt
GW	Giga-Watt
OCED	Organization for Economic Co-Operation and Development
TWh	Tera-Watt Hour
Mtoe	Million Tonnes of Oil equivalent
kWh	Killo-Watt Hour
C-WET	Centre for Wind Energy Technology
HAWT	Horizontal Axis Wind Turbine
VAWT	Vertical Axis Wind Turbine
RMSE	Root Mean Square Error
COP	Coefficien of Power
CO ₂	Carbon Di-Oxide
SO ₂	Sulphur Di-Oxide
NO _x	Nitrous Di-Oxide
FGD	Flue-gas desulfurization
CCGT	Combined cycle gas turbine
RPM	Rotation per minute
