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## LIST OF ABBREVIATIONS

<b>Abbreviation</b>	<b>Full Form</b>
<b>AC</b>	Annualized Cost
<b>ANN</b>	Artificial Neural Networking
<b>ARB</b>	Agro-Residue Biomass
<b>ASTM</b>	American Society for Testing and Materials
<b>AUHDSS</b>	Aberdeen University Harvesting Decision Support System
<b>BEAM</b>	Bio-Energy Assessment Model
<b>BFB</b>	Bubbling Fluidized Bed Gasifier
<b>BITES</b>	Integrated Biomass to Electricity Model
<b>CCBL</b>	Critical Char Bed Length
<b>CDSS</b>	Coppice Decision Support System
<b>CFB</b>	Circulating Fluidized Bed Gasifier
<b>CFD</b>	Computational Fluid Dynamics
<b>CGE</b>	Cold Gas Efficiency
<b>CHDSS</b>	Coppice Harvesting Decision Support System
<b>CR</b>	Chemical Reaction
<b>CRF</b>	Char Reactivity Factor
<b>DEG</b>	Decentralized Electricity Generation
<b>DFP</b>	Dual Fuel Electricity Generator
<b>DISCOM</b>	Distribution Company
<b>DOE</b>	Department of Energy
<b>DPM</b>	Discrete Phase Method
<b>DSS</b>	Decision Support System
<b>ED</b>	Electricity Distribution
<b>ER</b>	Equivalence Ratio
<b>FBG</b>	Fluidized Bed Gasifier
<b>FC</b>	Fixed Carbon
<b>FPL</b>	Feedstock Processing Loose Biomass
<b>FPW</b>	Feedstock Processing Woody and Semi-woody Biomass
<b>GHG</b>	Greenhouse Gas
<b>GIS</b>	Geographical Information System
<b>HHV</b>	Higher Heating Value
<b>ICE</b>	Internal Combustion Engine
<b>IEA</b>	International Energy Agency
<b>INDC</b>	Intended Nationally Determined Contributions
<b>IoT</b>	Internet of Things
<b>IRENA</b>	International Renewable Energy Agency
<b>LCOE</b>	Levelised Cost of Electricity
<b>LEARNGDM</b>	Gradient descent with momentum weight and bias learning function
<b>LHV</b>	Lower Heating Value

<b>Abbreviation</b>	<b>Full Form</b>
<b>MC</b>	Moisture Content
<b>MILP</b>	Mixed Integer Linear Programming
<b>MINLP</b>	Mixed Integer Non-Linear Programming
<b>MLP</b>	Multi-layer Perceptron
<b>MSG</b>	Mild Steel Gasifier
<b>NDC</b>	Nationally Determined Contributions
<b>NREL</b>	National Renewable Energy Laboratory
<b>NRSC</b>	National Remote Sensing Centre
<b>ORC</b>	Organic Rankine Cycle
<b>PGP</b>	100% Producer Gas Electricity Generator
<b>PURELIN</b>	Linear transfer function
<b>RMSE</b>	Root Mean Square Error
<b>RPO</b>	Renewable Energy Purchase Obligation
<b>SBR</b>	Steam to Biomass Ratio
<b>SDG</b>	Sustainable Development Goal
<b>SMD</b>	Sauter Mean Diameter
<b>SOR</b>	Steam to Oxygen Ratio
<b>SPV</b>	Solar Photovoltaic
<b>SSG</b>	Stainless Steel Gasifier
<b>T&amp;D</b>	Transmission and Distribution
<b>TANSIG</b>	Tangent Sigmoid function
<b>TRAINLM</b>	Levenberg-Marquardt Training function
<b>UNDP</b>	United Nations Development Programme
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>VM</b>	Volatile Matter