

LIST OF SYMBOLS

1G	First Generation
2G	Second Generation
Mtoe/yr	Metric Ton Equivalent/Year
%	Percent
kg	Kilogram
CO ₂	Carbon Dioxide
Gt	Giga tone
°	Degree
C	Celsius
L	Liter
KL	Kilo Liter
ML	Million Liter
L ⁻¹	Per Liter
kgCO ₂ eq./L	Kilogram Carbon Dioxide Equivalent Per Liter
kgCO ₂ eq./m ³	Kilogram Carbon Dioxide Equivalent Per Meter Cube
gCO ₂ eq.MJ ⁻¹	Gram Carbon Dioxide Equivalent Per Mega Joule
kJ	Kilo Joule
MJ	Mega Joule
GJ	Giga Joule
MTCO ₂ eq. year ⁻¹	Metric Ton Carbon Dioxide Equivalent Per Year
E5	5% (volume/volume) ethanol blend in gasoline
E10	10% (volume/volume) ethanol blend in gasoline
E85	85% (volume/volume) ethanol blend in gasoline
€	Euro
\$	Dollar
kg _{ethanolIN}	kg ethanol India
kg _{ethanolBR}	kg ethanol Brazil
N ₂ O	Nitrous Oxide

CH ₄	Methane
gPO ₄ eq.	Gram Phosphate Equivalent
gSO ₂ eq.	Gram Sulphur Dioxide Equivalent
gC ₂ H ₄ eq.	Gram Ethylene Equivalent
EtOH	Ethanol
kWh	Kilowatt Hour
CO	Carbon Monoxide
NO _x	Nitrogen Oxide
SO ₂	Sulphur Dioxide
SO _x	Sulphur Oxide
HC	Hydrocarbon
NO ₃	Nitrate
NH ₃	Ammonia
ha	Hectare
ton	Tonne
t/ha.yr	Tonne Per Hectare Year
N	Nitrogen
P	Phosphorus
K	Potassium
cm	Centimeter
km	Kilometer
L/hr	Liter per hour
km/L	Kilometer Per Liter
m ³	Meter cube
man-hr	Man hour
HP	Horse Power
MJ/kg	Mega Joule Per Kilogram
MJ/L	Mega Joule Per Liter
MJ/kWh	Mega Joule Per Kilowatt hour
MJ/m ³	Mega Joule Per Meter Cube

kcal	Kilocalorie
Eq.	Equation
MMT	Million Metric Tonne
⁰ N	Degree North
C5	Five Carbon
C6	Six Carbon
mm	Millimeter
v/v	Volume by Volume
w/w	Weight by Weight
mins	Minutes
\$/ton	Dollar Per Tonne
INR/ton	Indian Rupees Per Tonne
Rs.	Rupees
H ₂ SO ₄	Sulfuric acid
NaOH	Sodium Hydroxide
(NH ₄) ₂ PO ₄	Ammonium Phosphate
KH ₂ PO ₄	Potassium Dihydrogen Phosphate
MgSO ₄ .7H ₂ O	Magnesium Sulphate