

# Report Explainer

Page	Description	Terms	Definition
1	Summary metrics about : Annual Production Performance Ratio Specific generation DC Nameplate AC Nameplate Load Ratio Weather Dataset	Annual Production	The total energy generated during the simulation, in KWh or MWh
		Performance Ratio	It is the ratio of Annual Production and Nominal PlantOutput, where nominal plant output is the product of incident energy on the plant and efficiency of modules
		Specific Generation	The total annual production divided by the system DC nameplate power
		DC Nameplate	Rated power output of the Module layout in KWp
		AC Nameplate	Rated power of Inverter operation at output
		Weather Dataset	The source of information regarding weather at the location. It is used for annual generation simulation
2	The estimated savings using solar for the next 25 years along with Total Savings,Payback Period and IRR	Total Savings	For expected life, the total amount of savings made on electricity bill
		Payback Period	Time required to reach break-even point, to recoup the funds of investment
		Internal Rate of Return	It is a measure of an investment's rate of return. The term internal refers to the fact that the calculation excludes external factors, such as the risk-free rate, inflation and the cost of capital

**3** Bill of materials for the Design, including make and quantity for modules, wire, and inverter

**4** Monthly production values for the designed system

Global Direct Irradiation

It gives the irradiation striking a plate perpendicular to the sun's rays

Global Diffuse Irradiation

It is the solar radiation that is absorbed, scattered, or reflected by water vapor, dust particles or pollution when passing through the atmosphere

Global Effective

Total irradiation available to the panel as input energy

EArray

Energy output by the system after PV conversion

EGrid

Energy output at the end available for consumption or transported to grid

Spec Gen

Monthly Specific generation values

PR

Performance Ratio values for the month

**5** Detailed energy output calculated monthly with weather data, Specific generation and Performance Ratio.

**6** Detail on mechanical layout – Frame size, row spacing and module orientation, tilt and azimuth.

<b>7</b>	Birds eye view of heat map of the site and solar access indicator for panels	Heat Map	The view of available sunlight in a year on the given area. Yellow is Max and Purple black is Minimum energy
		Solar Access	It is the ratio of Available energy on the panel (as per design)/ Theoretical max
<b>8</b>	Detailed loss diagram shows the total losses at each step of the irradiance and energy calculations	Losses	Different types of losses calculated as per Generation Engine
<b>9</b>	Cost of not going solar compares the electric bill of a customer over 25 years with or without solar panels	Without Solar	Year wise spend on electricity bills, with input consumption details, base rate of electricity and yearly escalation percentage
		With Solar	Year wise spend on electricity bills, offset units generated by solar plant as per design and simulated results
<b>10</b>	Impact on environment compares the equivalent loss and gain of other means of energy to the one derived through the solar layout.	Carbon Dioxide Offset	Total estimated reduction in generation of carbon dioxide
		Equivalent Acres of Forest	Estimated area of forest area that balances the CO2
		Coal Burn Avoided	Amount of coal required to generate the same quantity of energy