

LG NeON[™] 2



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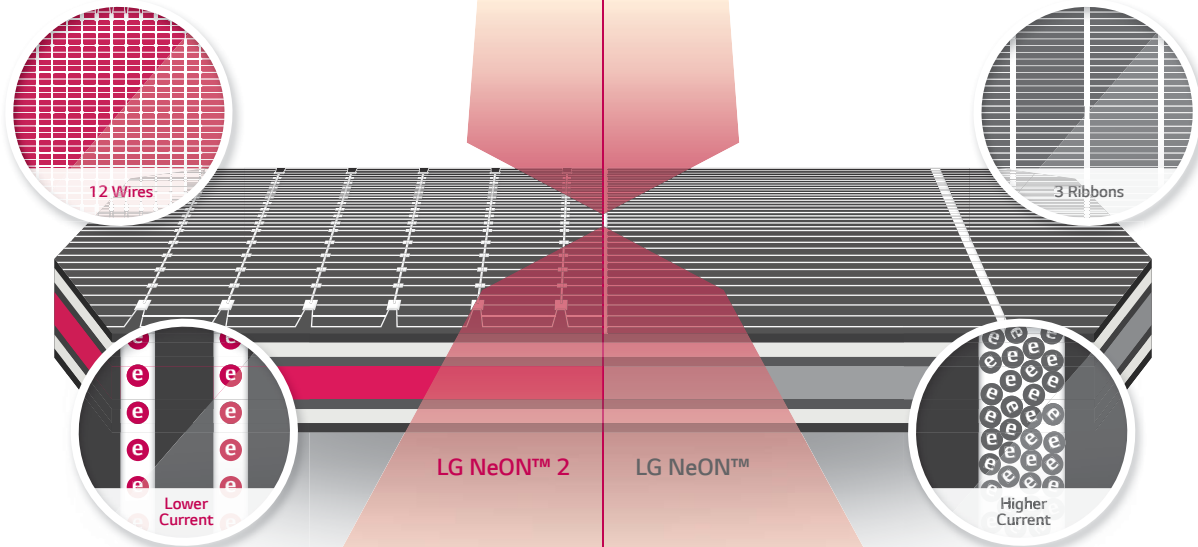
LG Solar USA 9

Newly Developed Cello Technology™

LG has introduced newly developed 'Cello Technology™ (Cell connection with Electrically Low loss, Low stress and Optical absorption enhancement)' which increases power output and improves appearance.

Space-efficient Connection

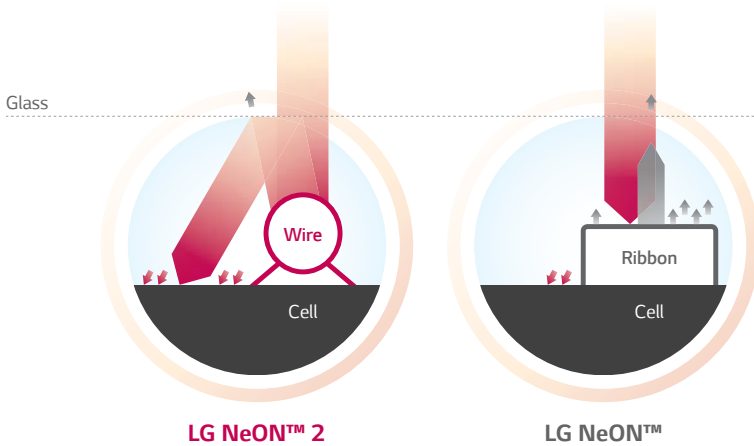
LG NeON™ 2 has 12 wires instead of 3 ribbons. In addition, distance between wires has been shortened.



Reduced Electrical Loss

Cello Technology™ reduces electrical loss by increasing the number of electrical paths in the cell.

Maximize Light Absorption

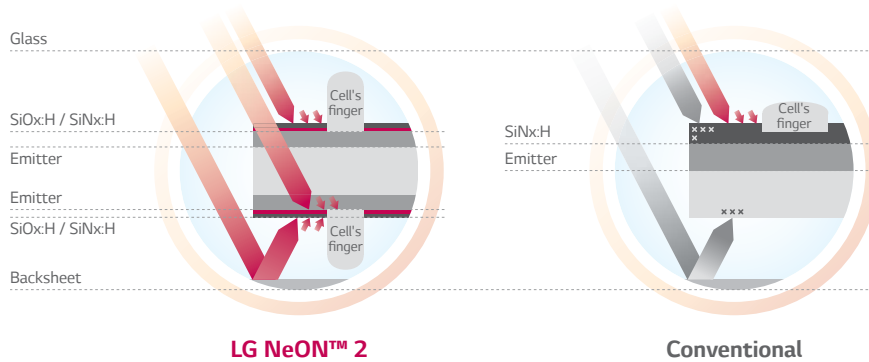


Cello Technology™: Improved Absorption of Light

Cello Technology™ improves the absorption of light with circular shaped wires, which scatter light more effectively.

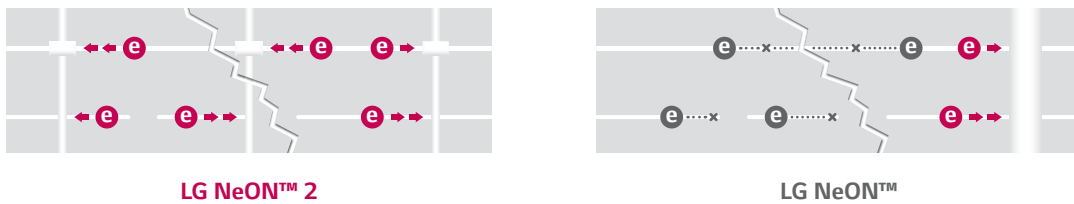
Double-sided Cell Structure

LG NeON™ 2 cell produces energy from both the front and back. By absorbing light from even the backside, the cells raise efficiency. This makes LG NeON™ 2 cells particularly more efficient than conventional cells in mornings and evenings when the incident angle is lower.



Cello Technology™: Less Power Generation Loss

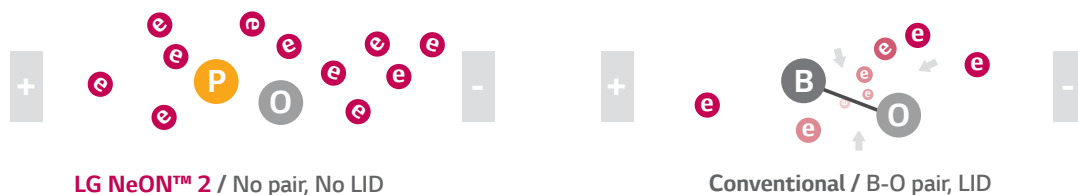
When micro crack or finger electrode erosion happens by natural degradation of mechanisms in the outskirts of the solar cell, LG NeON™ 2 reduces down performance by blocking the electrical path due to the tight layout of wires.



Extremely Low LID Cells

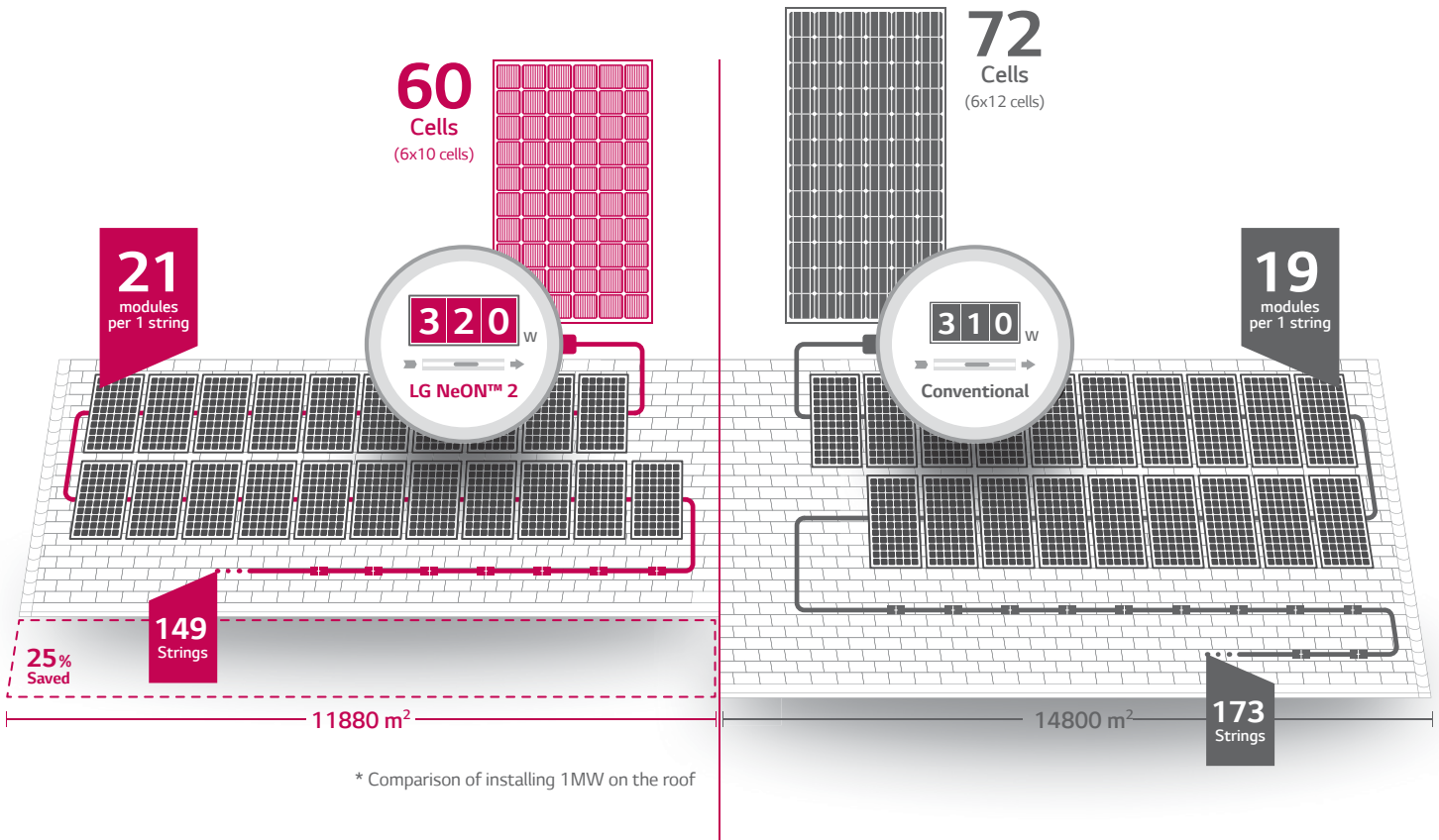
The boron (B) and oxygen (O) pair within the p-type cell eliminates the electrons that were created to generate energy. But inside the LG NeON™ 2, there are almost no B-O pairs. This is why LG NeON™ 2 has almost no LID*.

* LID: Light Induced Degradation



Installation Saving

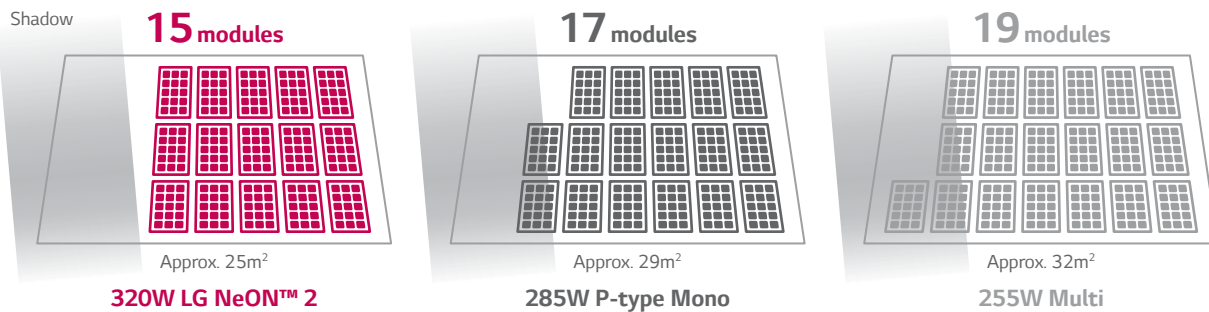
Compared with conventional multi module with 72 cells, LG NeON™ 2 achieves higher power output with 60 cells, making it easy to manage space when installing large scale systems. Also, with lower Voc than 72 Cell module, LG NeON™ 2 increases module quantity per '1 string' that decreases the total number of strings which leads to lower cost.



Space-efficient Panel

LG NeON™ 2 reduces the space needed for installation due to its high module efficiency. The size and efficiency of the modules allow users to consider the shadow of physical objects such as trees or a chimney, to get the best possible outcome from a deployment.

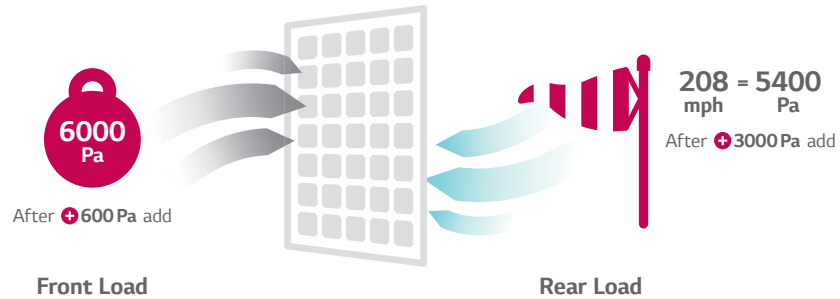
* Comparison of Module quantity and space when installing 4.8kWp on the roof



Enhanced Physical Durability

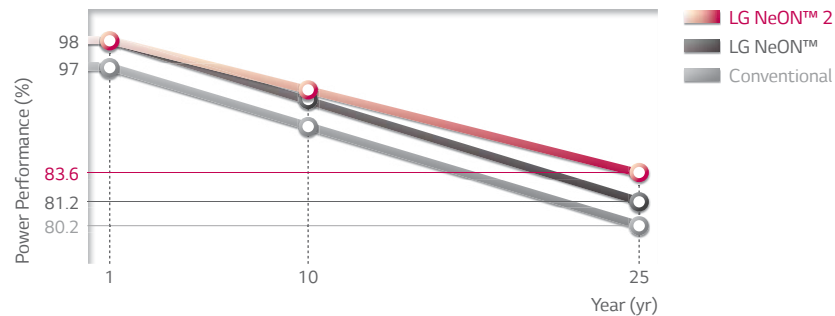
With its newly reinforced frame design, LG NeON™ 2 modules are designed to endure a front load up to 6000 Pa, and a rear load up to 5400 Pa.

* Hurricane Katrina (2005. Aug) Max speed: 75m/s



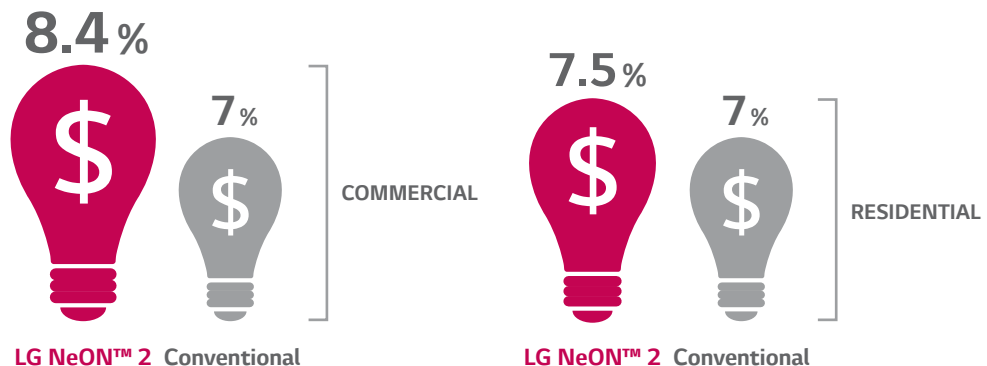
Enhanced Performance Warranty

LG NeON™ 2 has an enhanced performance warranty. The annual degradation has fallen from -0.7%/yr to -0.6%/yr. LG has also extended the warranty of the LG NeON™ 2 for an additional 2 years.



The IRR Comparison

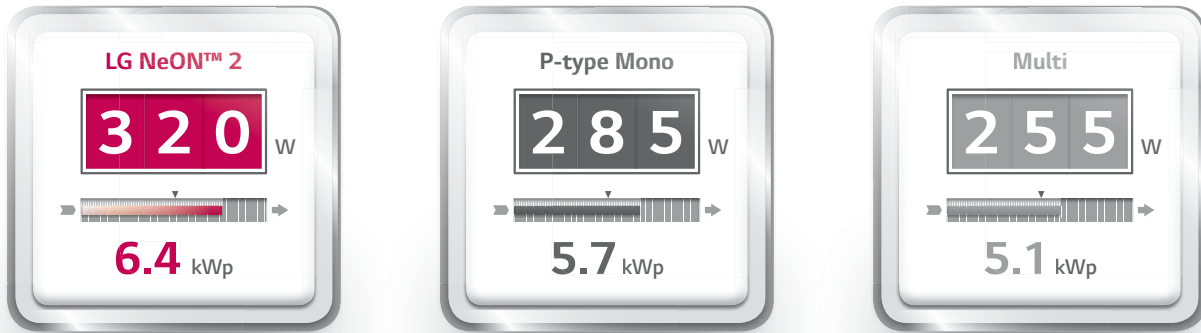
* The comparison between the IRR (Internal Rate of Return) was calculated internally at LG to compare the relative return rate between different modules. Therefore, this return rate is not guaranteed. Further, the rate may differ according to the area and date of the analysis.



More Power Generation

LG NeON™ 2 will maximize the solar power system capacity, producing more electricity and increasing the customer's economic benefits.

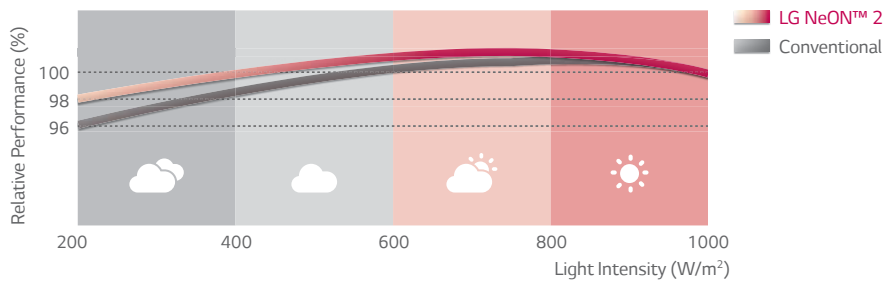
* Capacity of solar power system with 20 modules (60 cells)



High Performance at Weak Sunlight

LG NeON™ 2 gives good performance even on cloudy days due to its low energy reduction in weak sunlight.

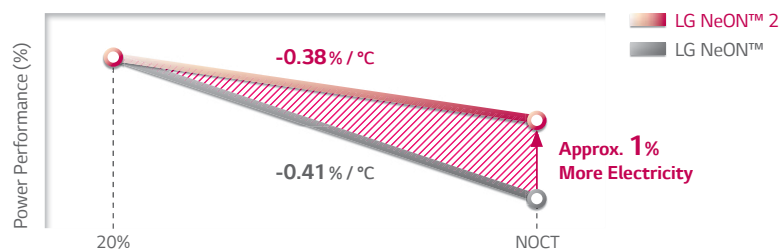
* Relative performance compared with the performance at 1000W/m



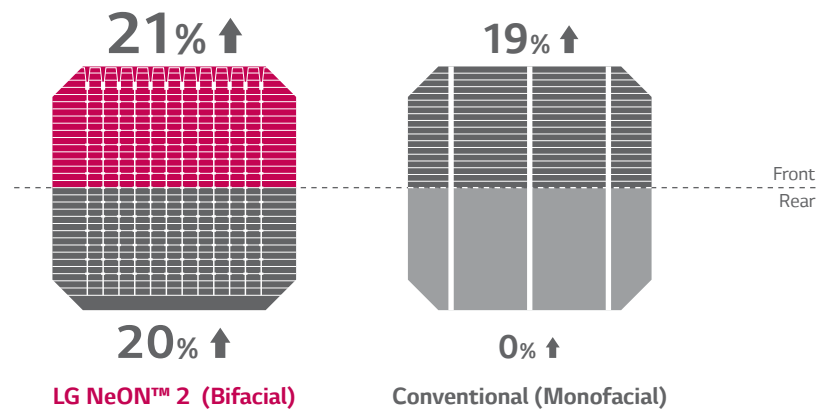
Improved Temperature Coefficient

LG NeON™ 2 has improved the temperature coefficient to -0.38% from -0.41%, the actual output can be increased to 3% on the daylight time.

* Based on PV Syst simulation

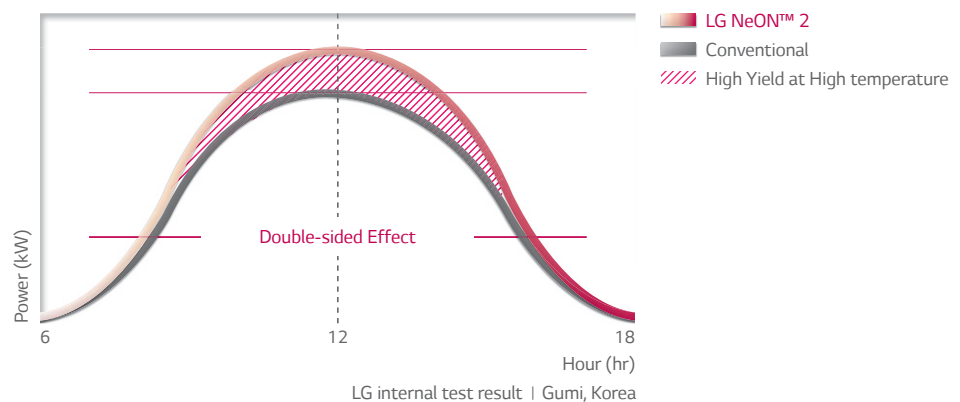


High Efficiency Cell Structure



High Performance Maximizes Output Power

With double-sided cell and lower temperature coefficient



LG Solar USA

North American Solar Business Team

LG Electronics USA, Inc.

1000 Sylvan Avenue Englewood Cliffs, NJ 07632

www.lgsolarusa.com

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