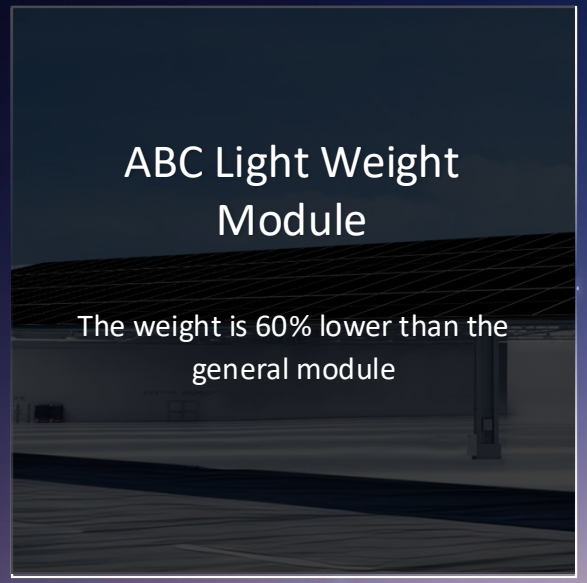

AIKO
Full of Future
Pursuing the Light


AIKO
Redefine PV For Customer Value
Make Every Land Full of Energy
Maximize PV Installed Capacity Per Square Meter
Harvest Extra Electricity Out of Each Watt


AIKO
Make Every Land Full of Energy

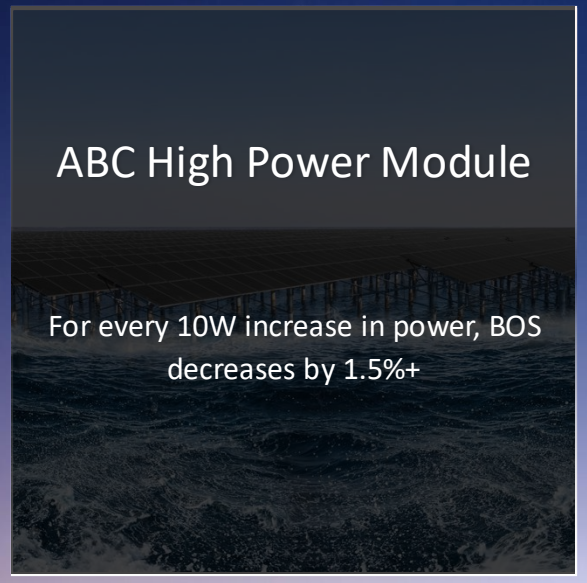
Make Every Land Full of Energy

Challenge



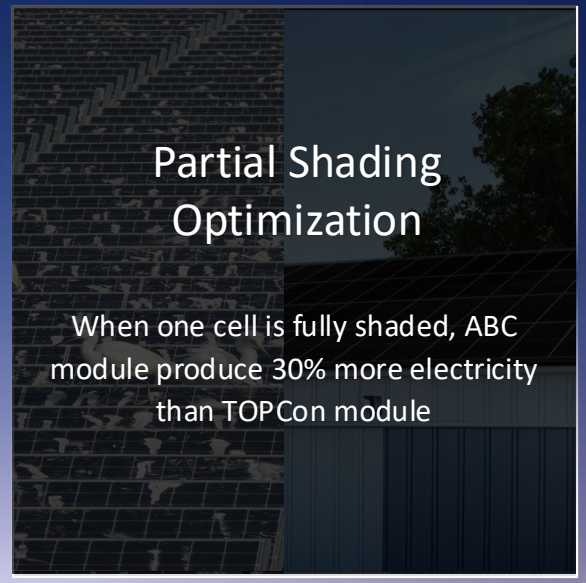
ABC Light Weight Module

The weight is 60% lower than the general module



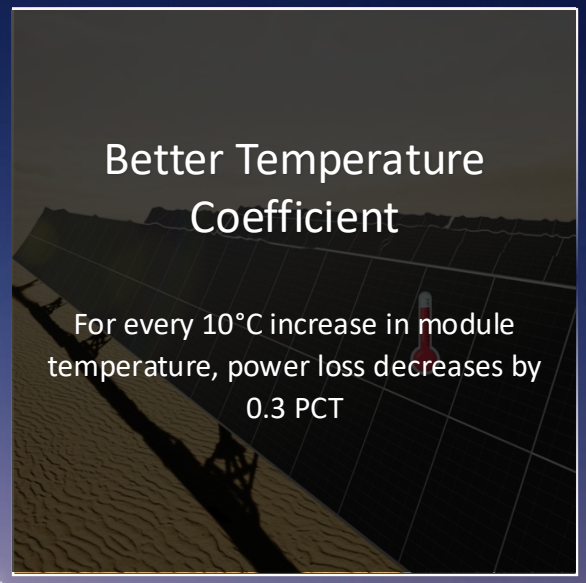
ABC High Power Module

For every 10W increase in power, BOS decreases by 1.5%+



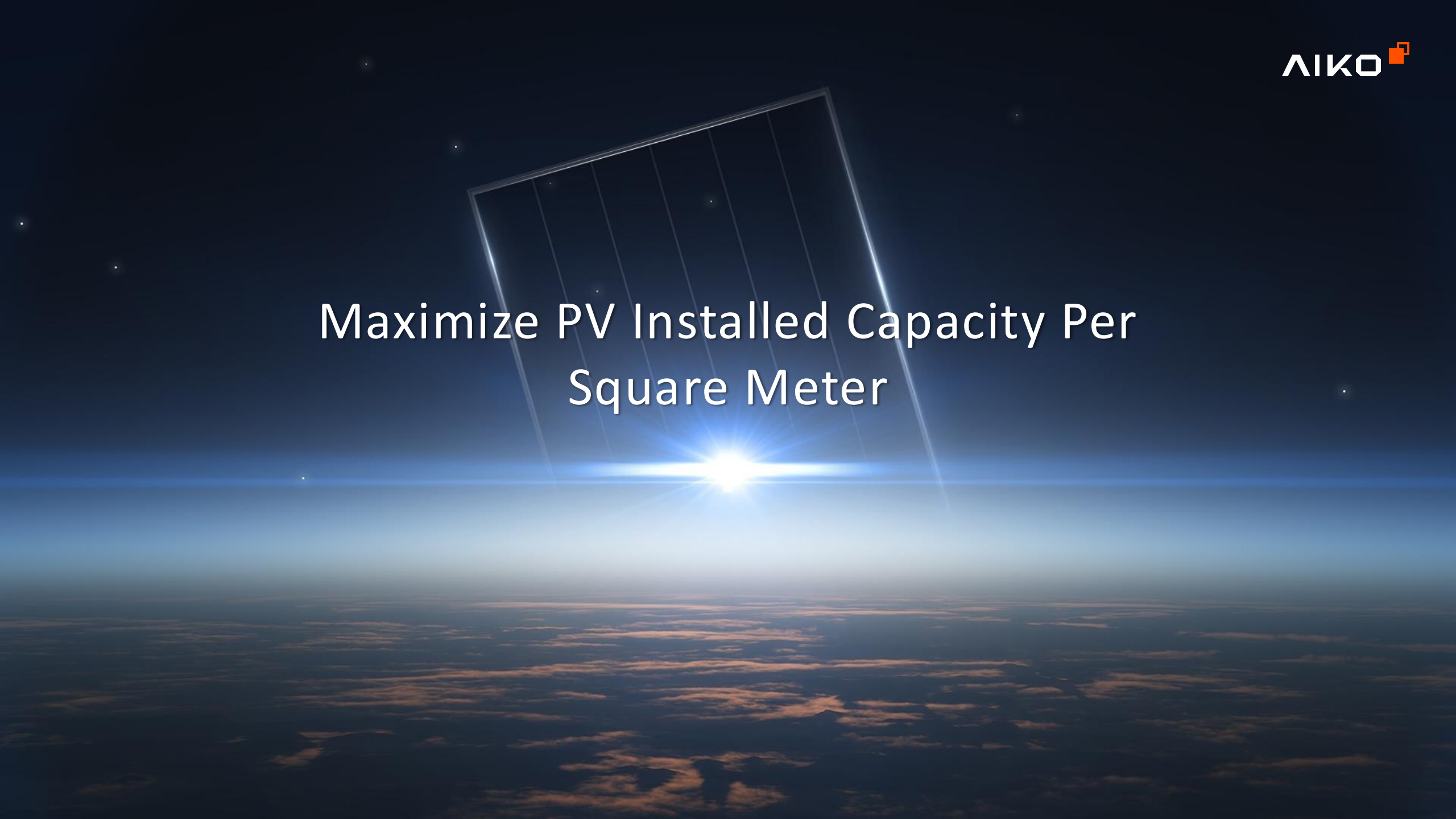
Partial Shading Optimization

When one cell is fully shaded, ABC module produce 30% more electricity than TOPCon module

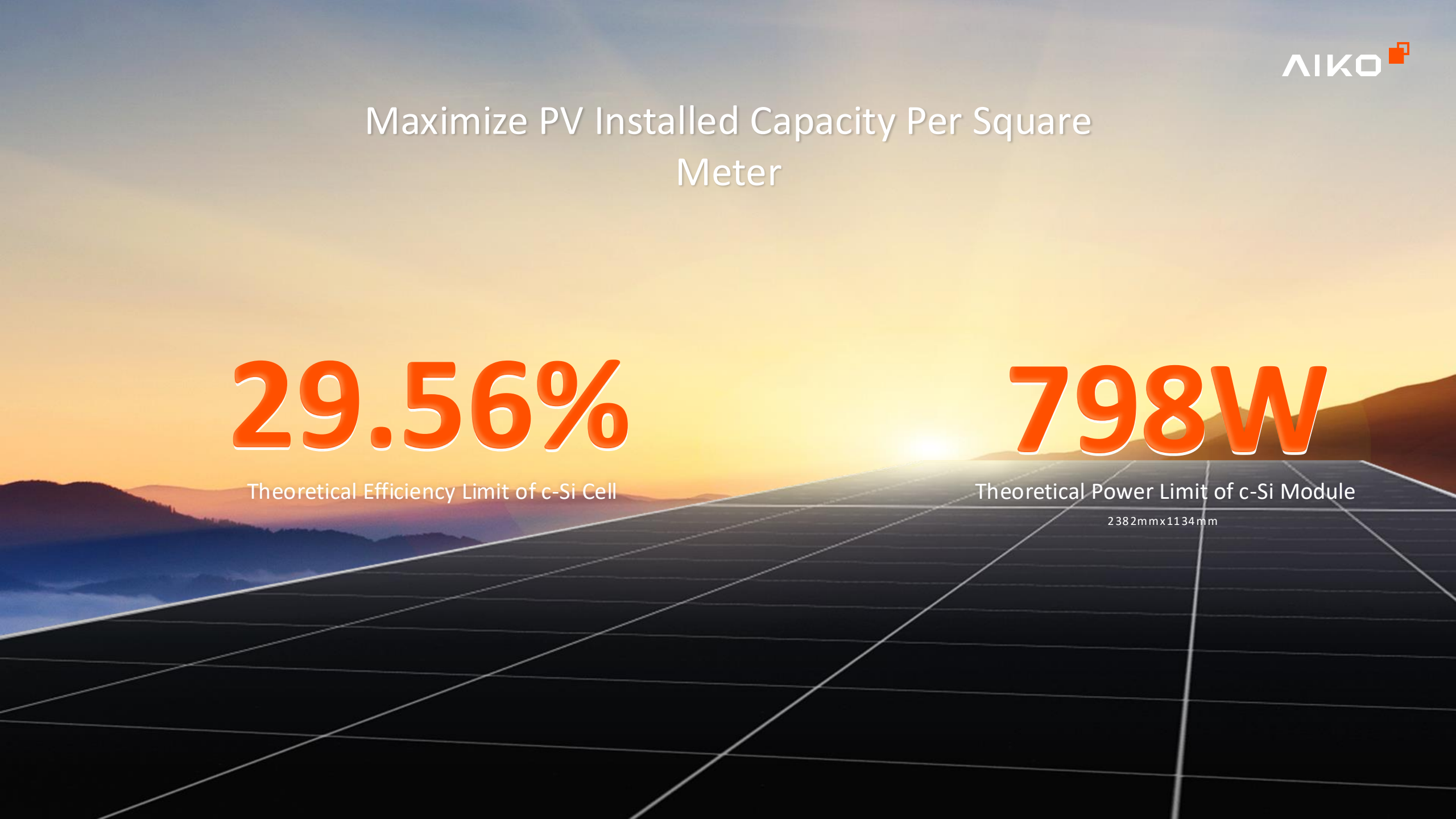


Better Temperature Coefficient

For every 10°C increase in module temperature, power loss decreases by 0.3 PCT


AIKO
Maximize PV Installed Capacity Per Square Meter


AIKO INFINITE MODULE
Deliverable Module Efficiency
25%+


AIKO
Maximize PV Installed Capacity Per Square Meter
29.56%
Theoretical Efficiency Limit of c-Si Cell
798W
Theoretical Power Limit of c-Si Module
2382mmx1134mm

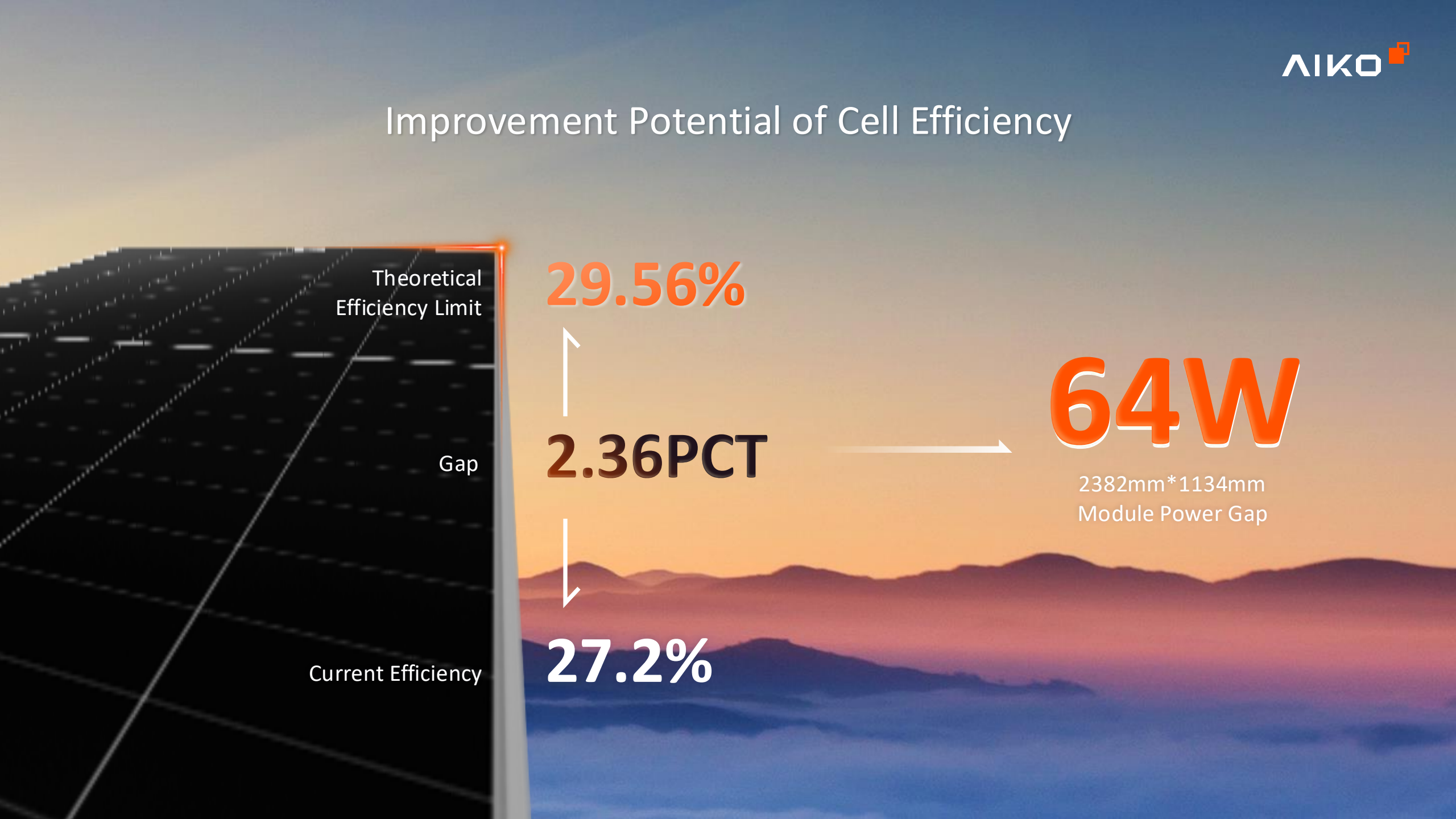
Improvement Potential

Improvement Path of Module Power

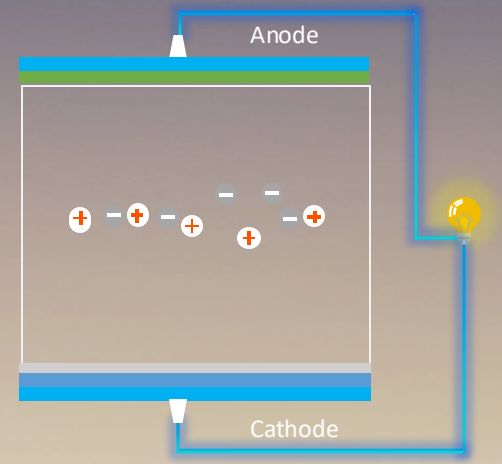
Cell Efficiency Increase

Non-cell Area Decrease

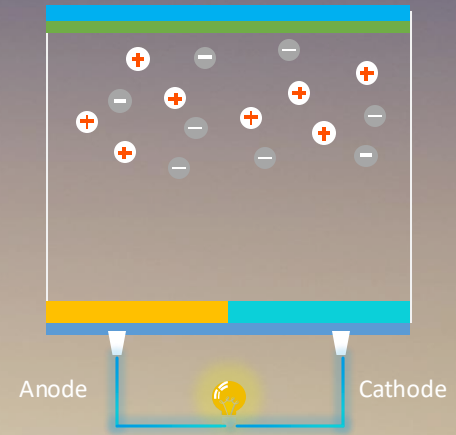
Improvement Potential of Cell Efficiency



Ultra High Resistance Silicon Wafer, Break through the Efficiency Bottleneck



Schematic diagram of electron flow of traditional cell



Schematic diagram of electron flow of ABC

TOPCon		ABC	Gap
3*10^15	Doping concentration	1*10^14 or less	Much lower
0.4-1.6	Resistivity	>30	18 times more
>1	Minority carrier's life	>10	10 times

ABC Born for High Efficiency

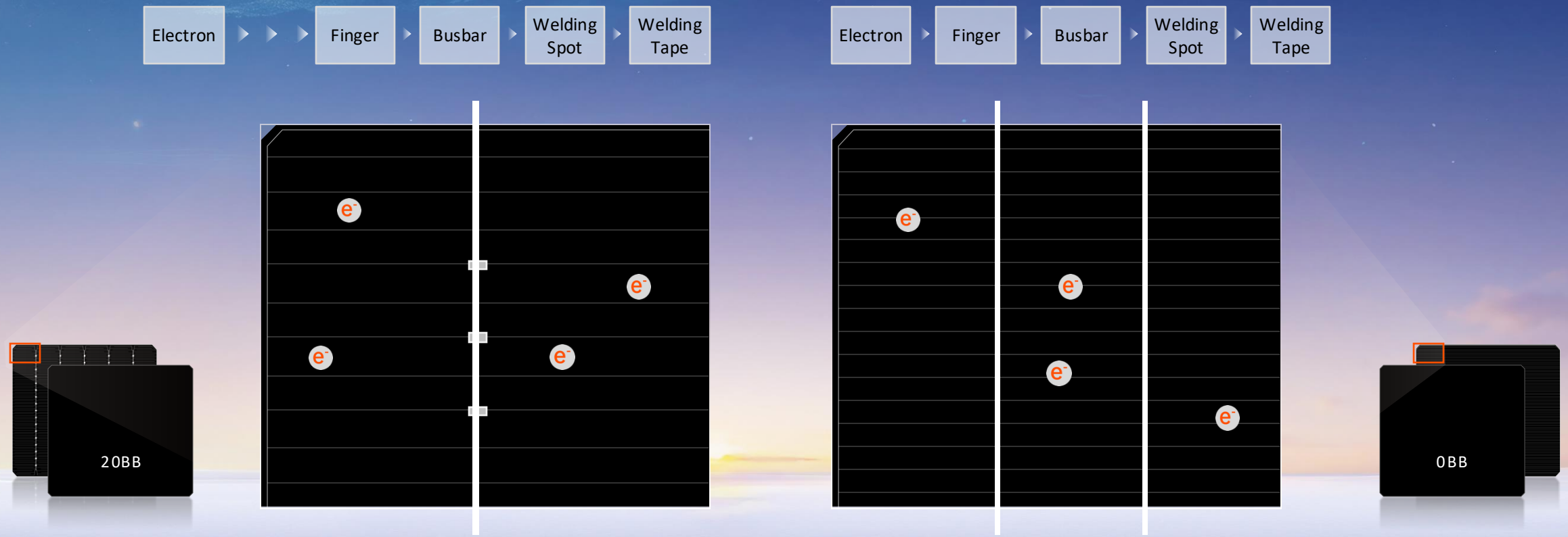
All Area Light Absorption

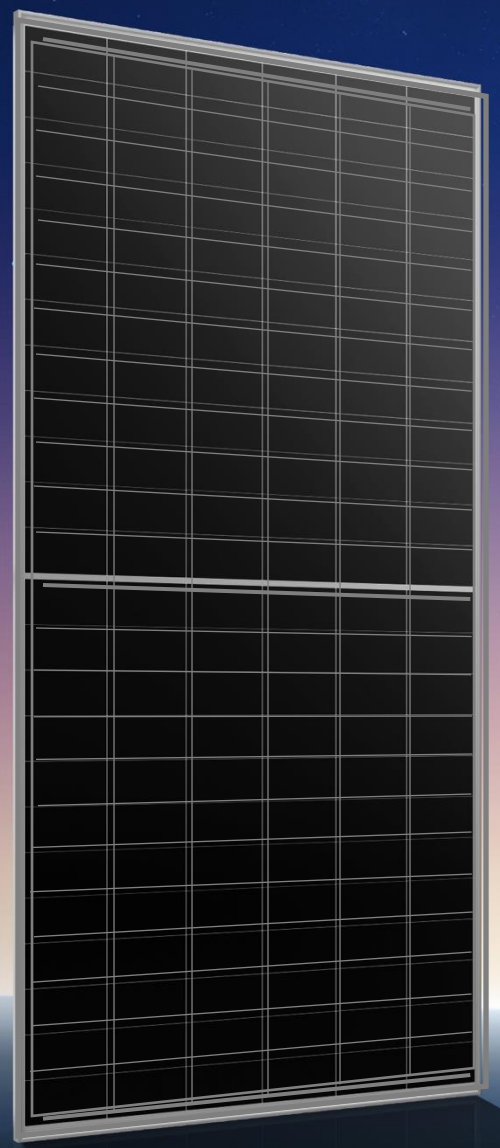
All Wafer Energy Generated

All Back Contact Electrode

All Back Passivation Contact

Further Reduction of Electrical Loss
— 0BB Technology





Reduction of Non-Cell Area

- Creepage distance
- Bus Ribbon
- Frame
- String Spacing
- Cell Spacing

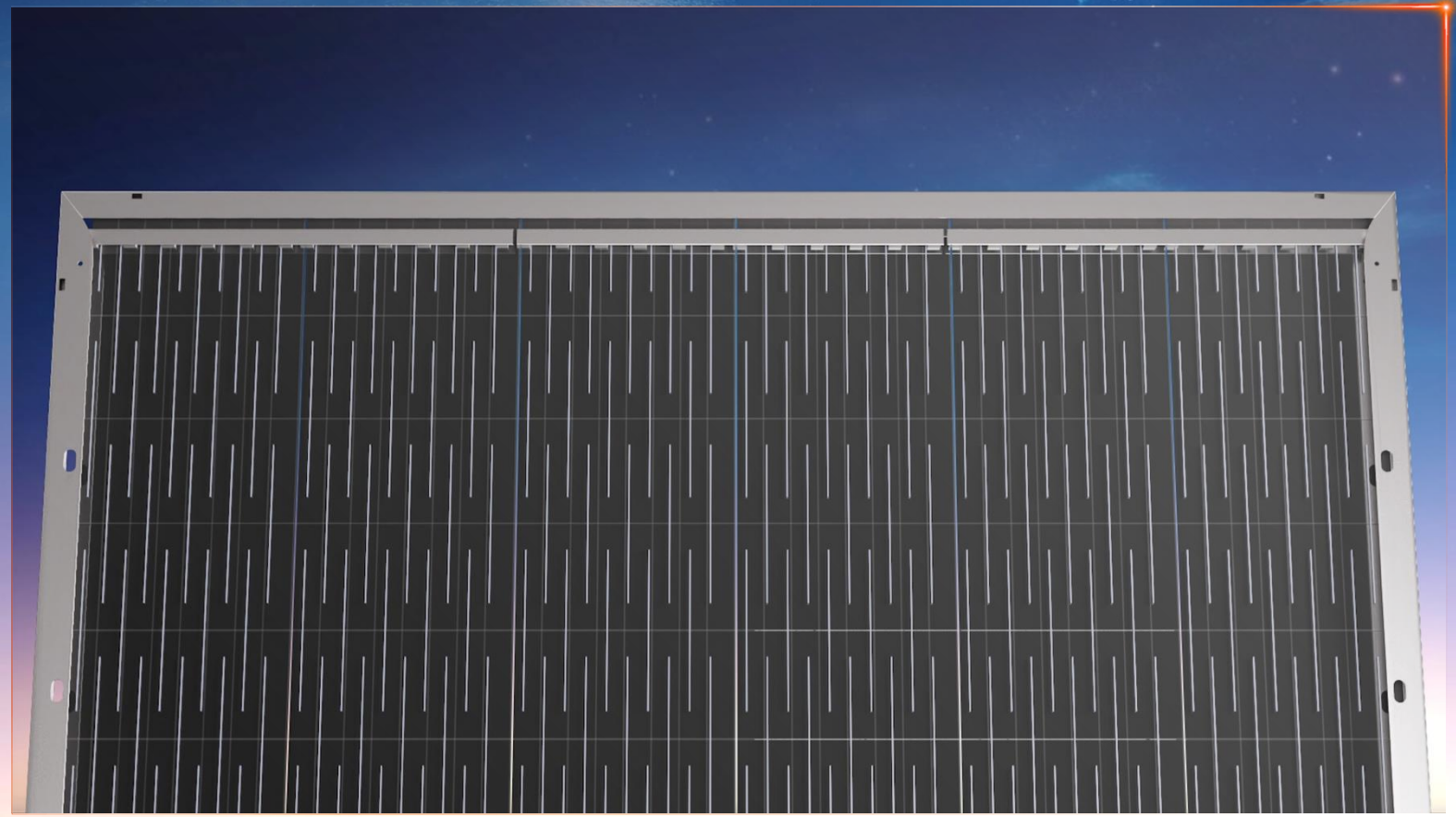
6.5%

Non-Cell Area Rate

46W

Power Improvement Potential

Hiding the Bus Ribbon, increasing the Power Generation Area



1.1%

Effective Power Generation Area Increased

8W+

Power Increased

2382mm*1134mm

Challenge of Traditional Technology

Hiding the Bus Ribbon,
increasing the Power Generation Area

1.1%

Effective Power Generation Area Increased

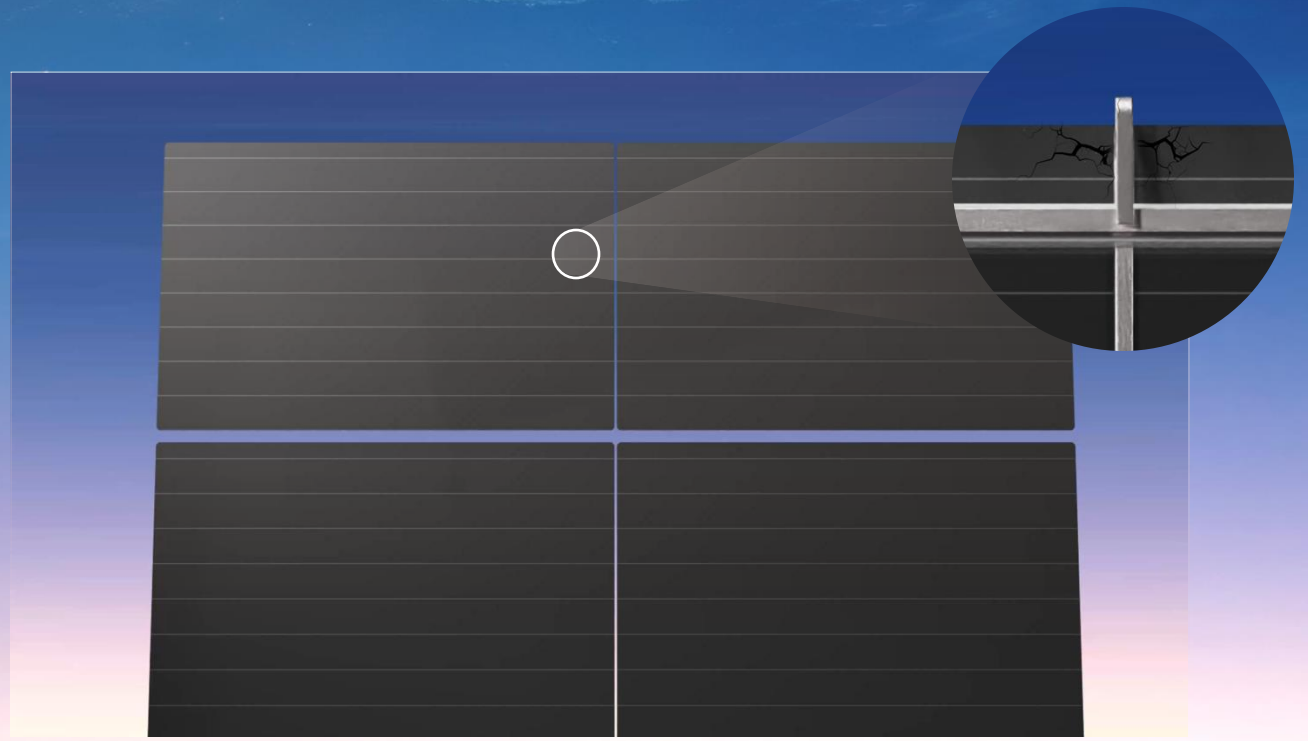
8W+

Power Increased

1. Flod the welding tape

2. Microcracks on cell’ s edge

3. 3mm+ extra tabbing ribbon is required

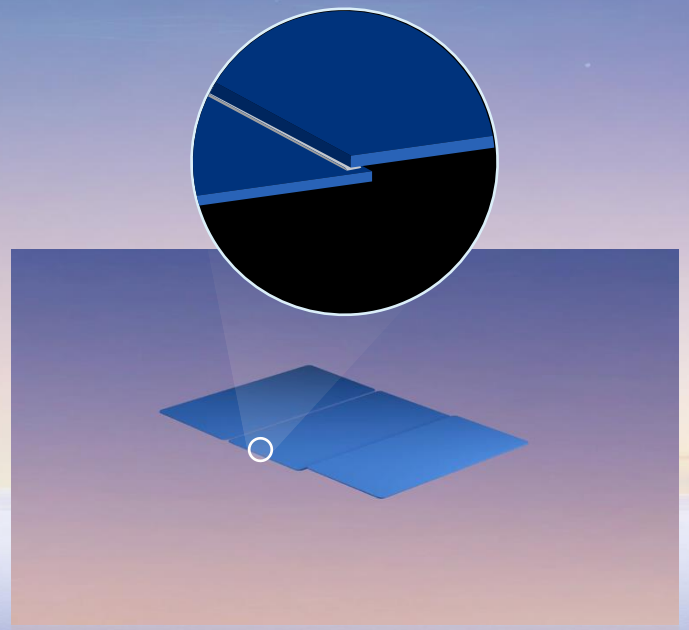


2382mm* 1134mm

ABC Overlap Welding
—— Eliminate Cell Spacing

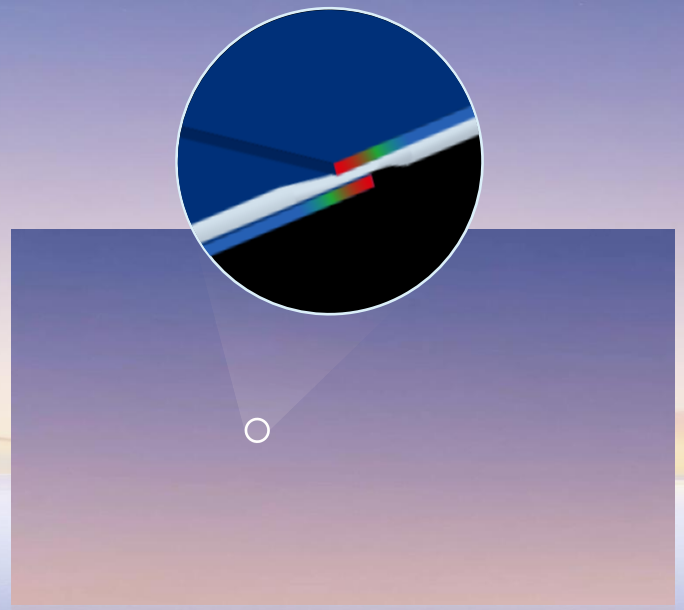
Traditional Shingled Technology

Long-term reliability of conductive adhesives cannot be guaranteed



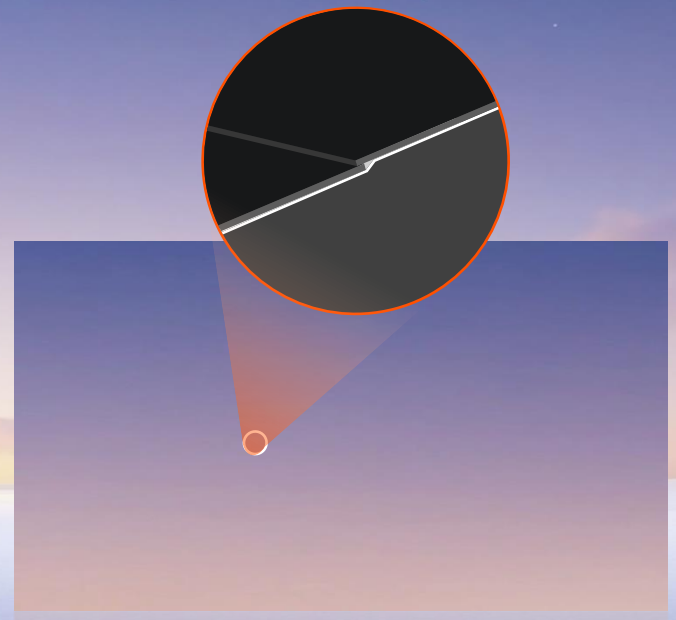
Traditional Overlap Welding

Microcracks at “Z” Shape Connection Point



ABC Overlap Welding

Single side Back Welding fits for Overlap Welding, 0.5% increased generated area



Maximize PV Installed Capacity Per Square Meter

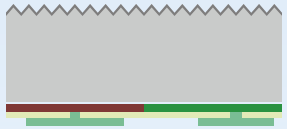
Ultra High Resistance Silicon Wafer, Break through the Efficiency Bottleneck

Ultra high Resistance

Less doping

Minority carrier’ s life increased by 10 times

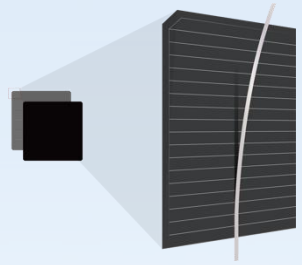
ABC Born for High Efficiency



No busbar at the front side,
full area absorb light

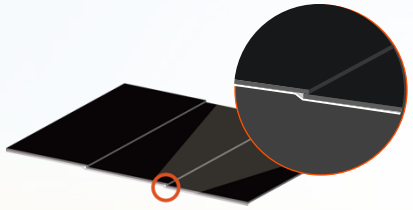
Light absorption area increased by 3%, decreasing electrical loss

ABC+ 0BB, effective and reliable



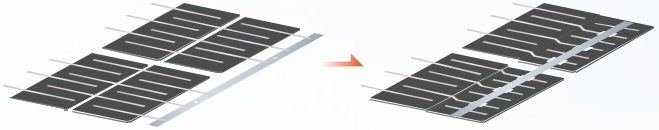
Decreasing electrical loss

Precisely overlap welding, eliminate cell spacing



Light absorption area increased by 5%

Hiding Bus ribbon, achieve real full screen



Light absorption area increased by 1.1%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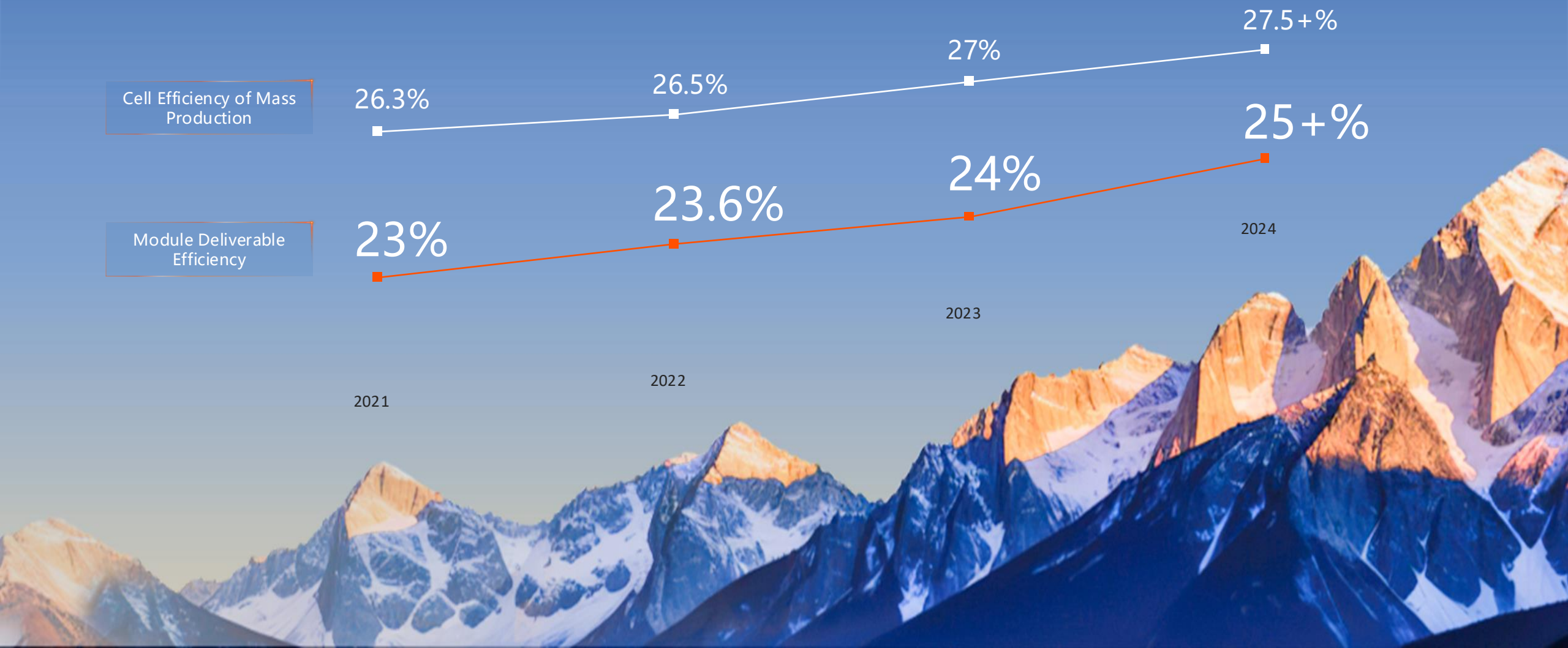
INFINITE 25%+


AIKO INFINITE MODULE
Deliverable Module Efficiency
25%+

ABC Efficiency Roadmap



Upgraded ABC Power in All Scenarios

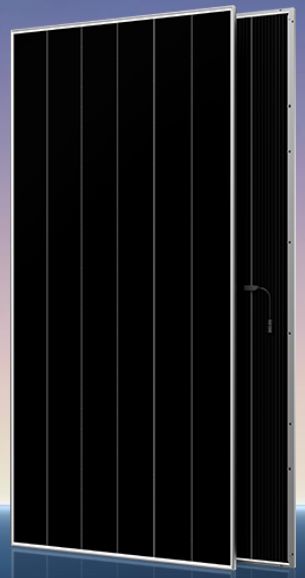
Residential

Neostar Series

495W

475W

1762mm*1134mm



700W

670W

2465mm*1134mm

C&I

Comet Series

680W

655W

2382mm*1134mm

Utility

Stellar Series

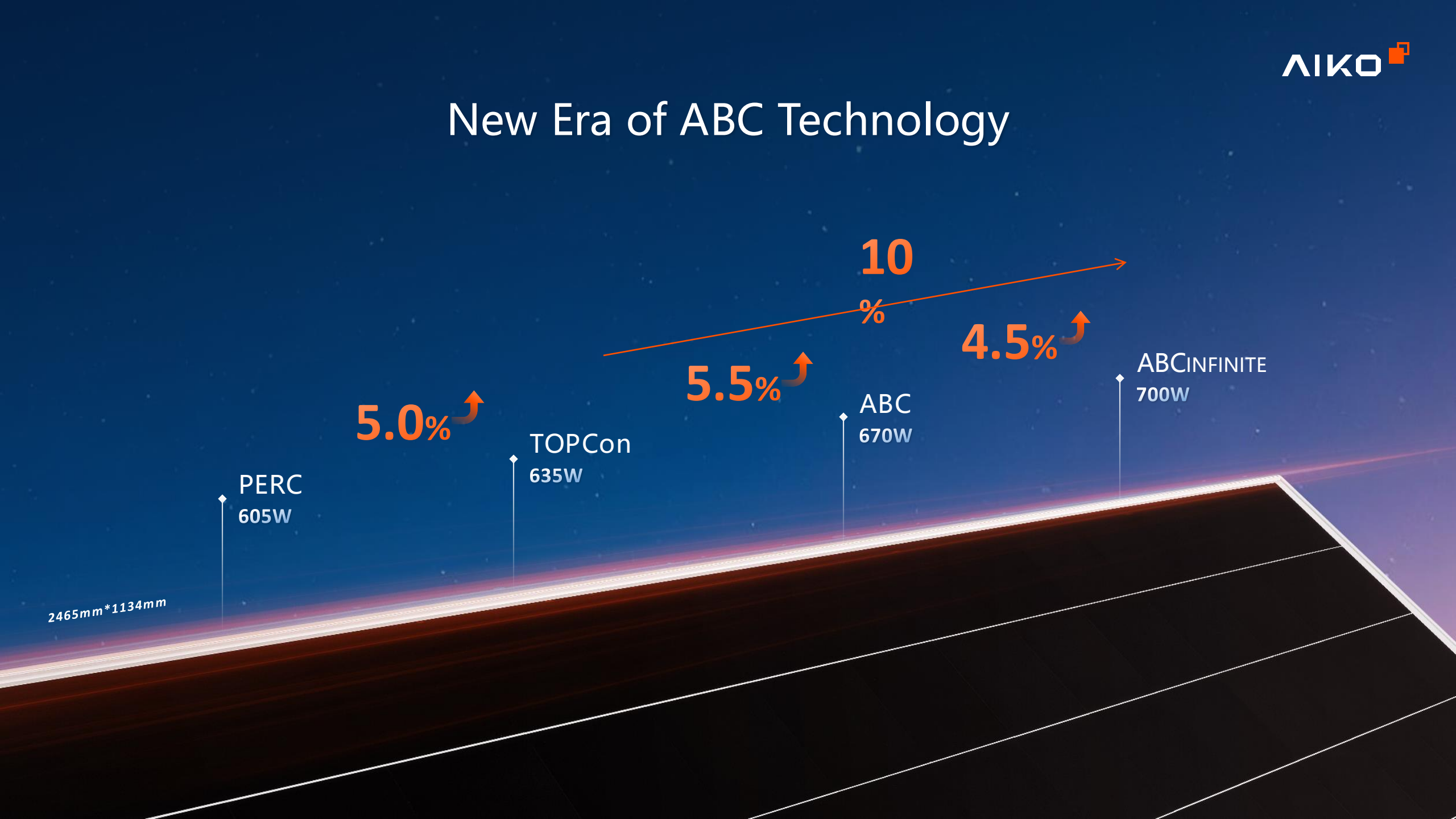
675W

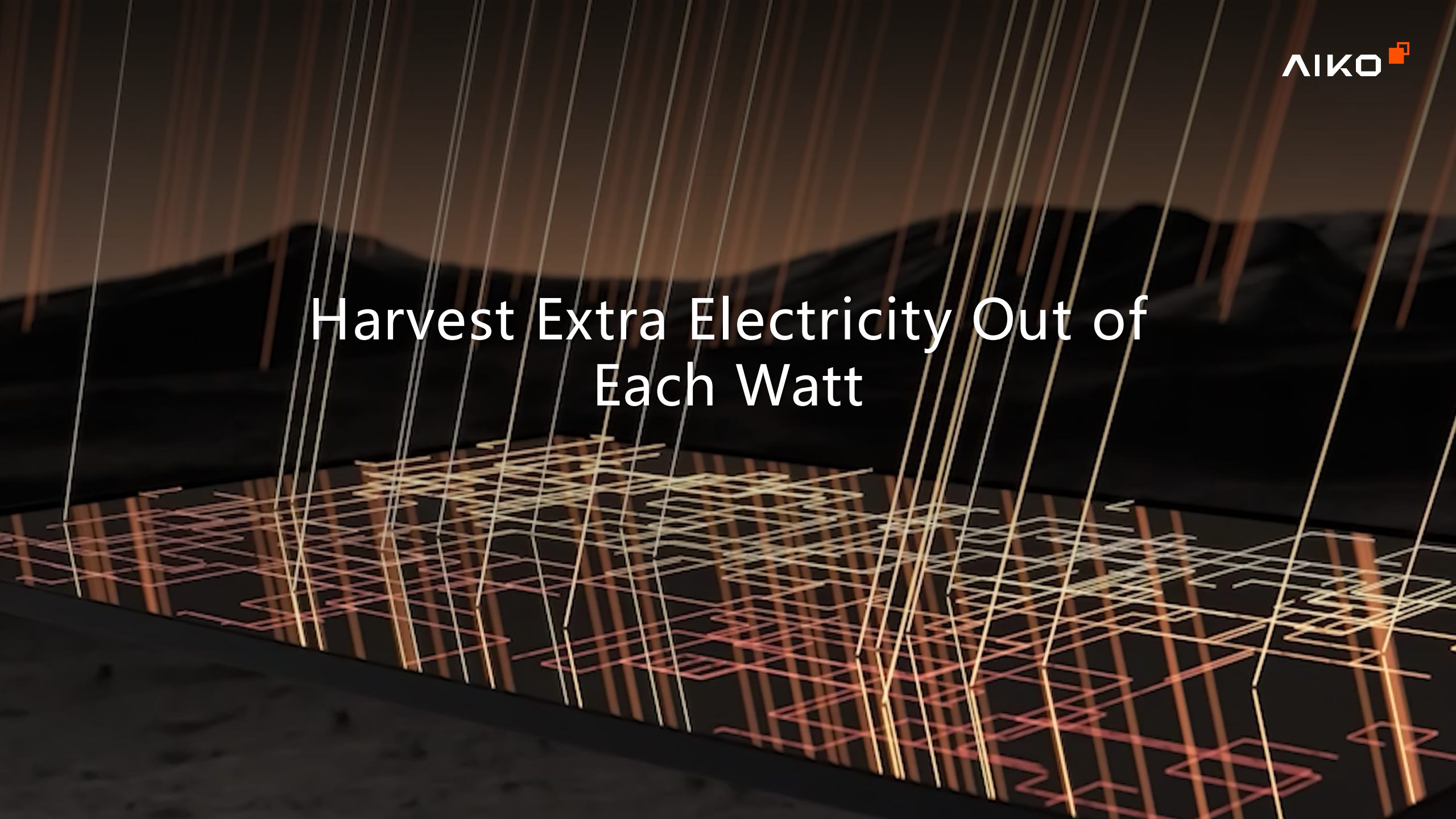
650W

2382mm*1134mm

ABC Key Features: Partial Shading Optimization, High Temperature Restriction,
Better Temperature Coefficient, Micro-crack Resistance

New Era of ABC Technology

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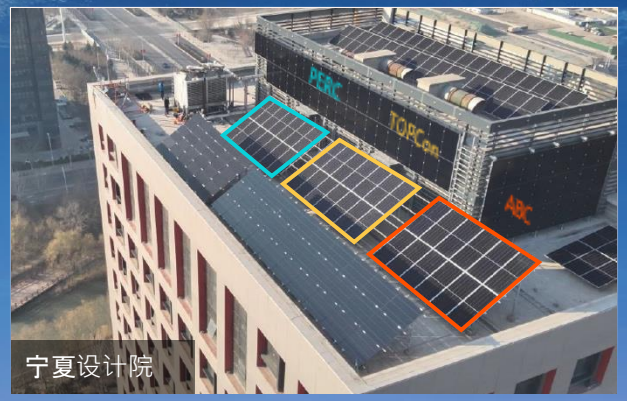
Harvest Extra Electricity Out of Each Watt

Partial Shading Optimization

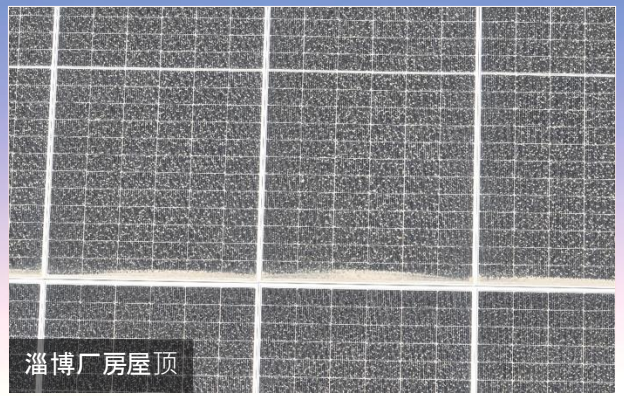


Near Shading Scenario

9.6%

Tree Shadow Shading Scenario

12.0 %



Dust Shading Scenario

11.3 %

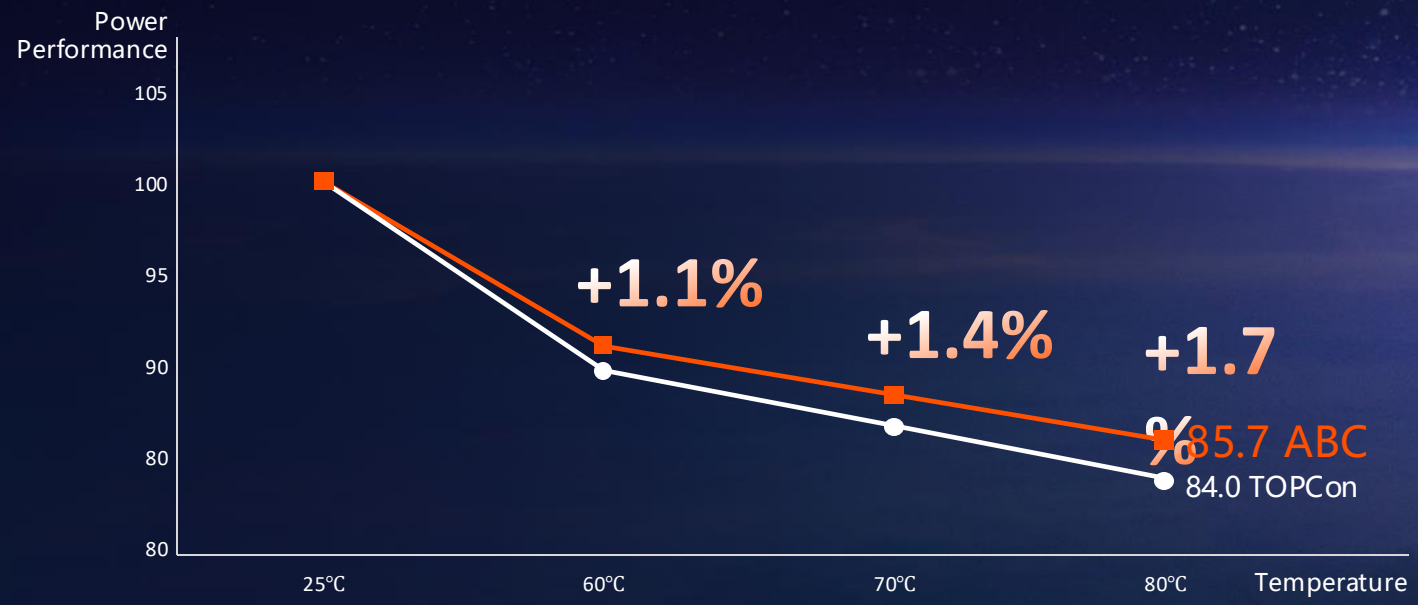
Chimney Simulation Shading Scenario

50.7 %

Power generation gain per Watt,compare with TOPCon

Better Temperature Coefficient

Power Output Gain under different Operating Temperature



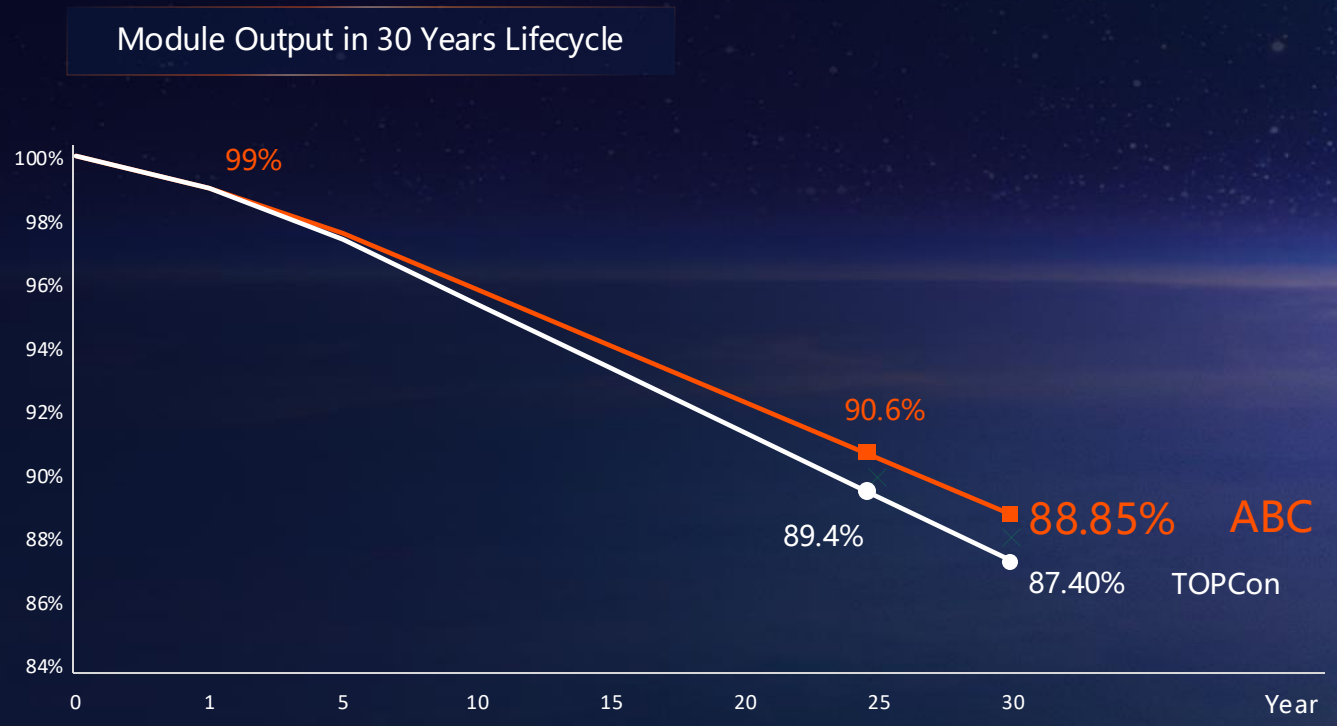
-0.26%/°C

VS -0.29%/°C

107/100分

ABC Score

Lower Degradation



≤1% / 0.35%

First Year / Annual
Degradation Coefficient

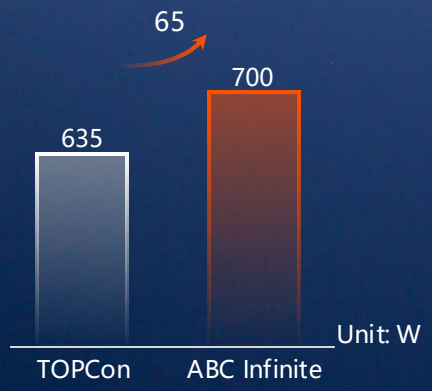
Key Values of ABC Infinite Technology for Clients

Customer Values- China Residential Developer

High Power

65w/per module

10.2%

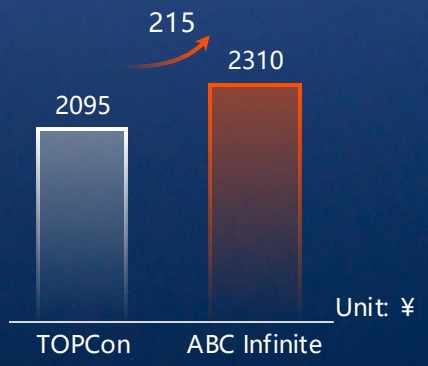


High Revenue

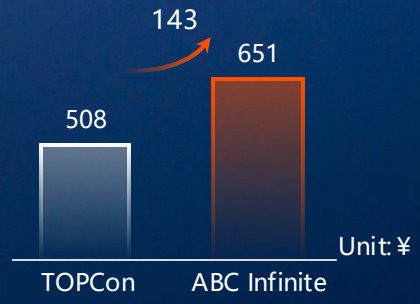
Excess Profit

¥ 70+/per module

215 - 143 = ¥72



Revenue per Module



Price per Module

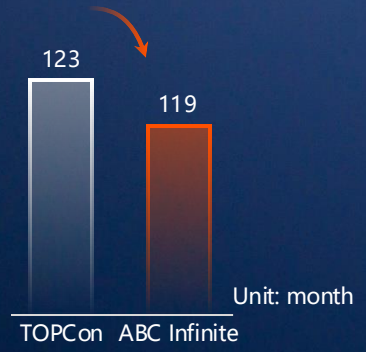
ABC Infinite 700W VS TOPCon 635W
Module Tyoe: 2465*1134
Investor purchasing Price: 3.3¥/W

Customer Values- China Residential Investor

High Revenue

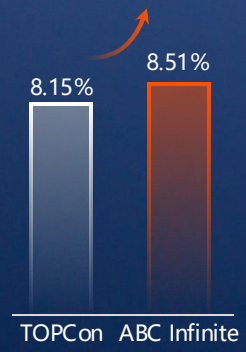
Payback Period shortened by

4month



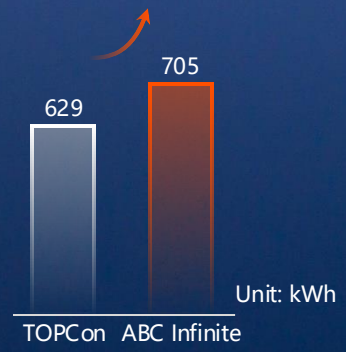
IRR Increased by

4.4%



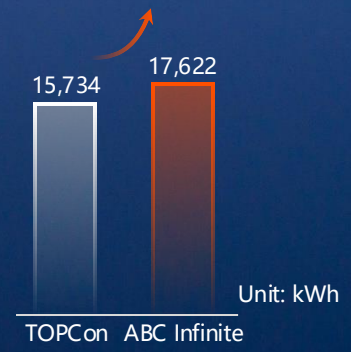
Annual Energy Generated Increased by

76kWh /per module



25 Years Energy Generated Increased by

1888kWh /per module



Extra Revenue: Widen customer acquisition channels, Partial Shading Optimization, Better Temperature Coefficient, Lower Degradation

Ultra Safety

Micro-crack Resistance

High Temperature Restriction

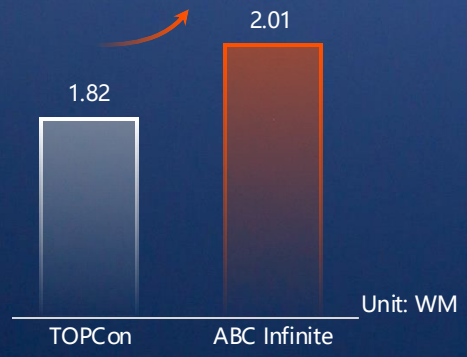
ABC Infinite 700W VS TOPCon 635W
Module Tyoe: 2465*1134
Investor purchasing Price: 3.3￥/W
Consolidated Electricity Price: 0.4152 ￥/kWh

Customer Values- China C&I EPC

High Power

Installation capacity increased by

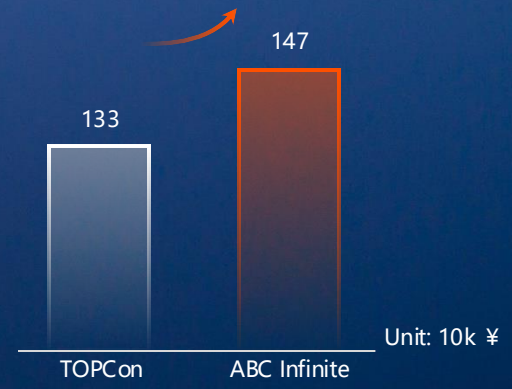
10.4%



High Revenue

Same Rooftop, profit increased by

10.6%



Extra Revenue: Partial Shading Optimization, Better Temperature Coefficient, Lower Degradation

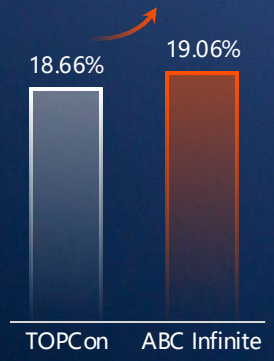
Location: Zhejiang, 10,000 m2 C&I Rooftop
ABC Infinite 680W VS TOPCon 610W
Module Tyoe: 2382*1134
EPC Contract Price: 3.3¥/W

Customer Values- China C&I Owner

High Revenue

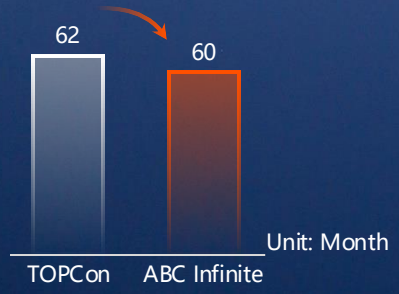
IRR Increased by

2.1%



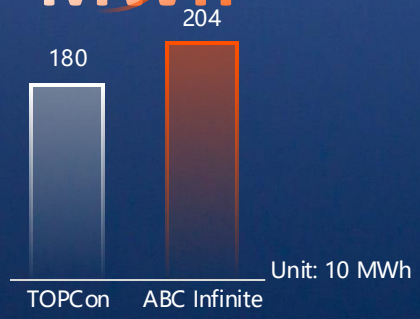
Payback Period shortened by

2 Months



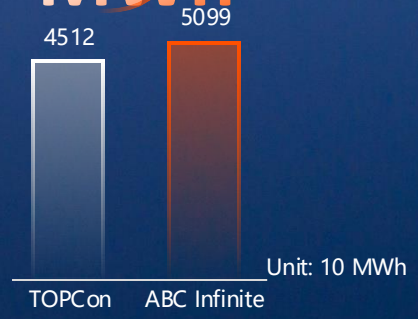
Annual Energy Generated Increased by

240 MWh



25 Years Energy Generated Increased by

5,870 MWh



10,000 m² Rooftop

Ultra Safety

Micro-crack Resistance

High Temperature Restriction

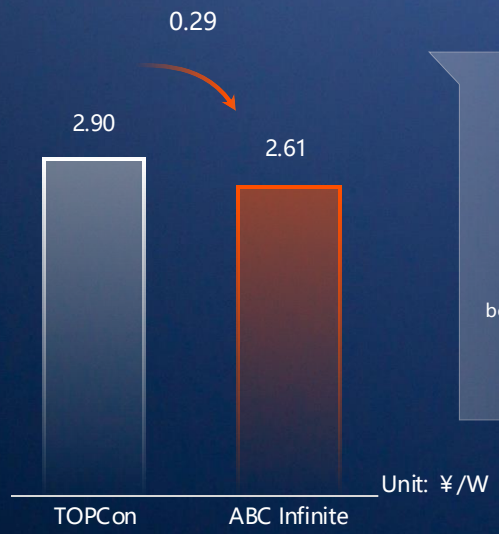
Location: Zhejiang, 10,000 m2 C&I Rooftop
ABC Infinite 680W VS TOPCon 610W
Module Tyoe: 2382*1134
EPC Contract Price: 3.3￥/W
Consolidated Electricity Price:0.59￥/kWh

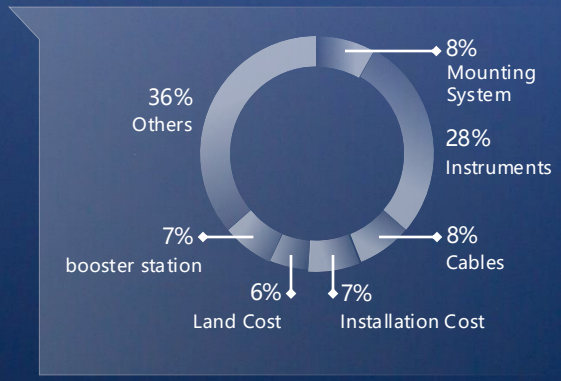
Customer Values – China Utility

LCOE Decreased by 5.1%

BOS Decreased by

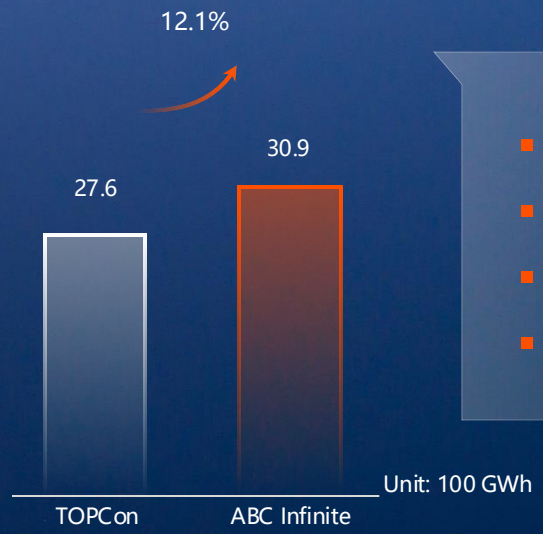
10%





25 Years Energy Generated Increased by

12%+



- Installation capacity increased 10.7%
- Partial Shading Optimization
- Better Temperature Coefficient
- Lower Degradation

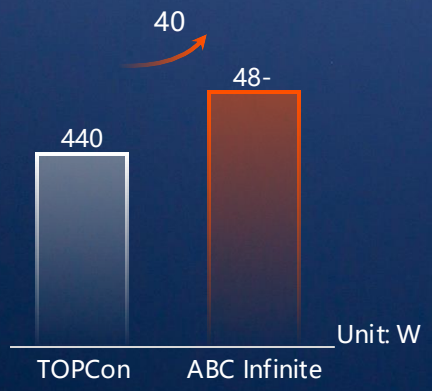
1,000,000 m2 project (Same land area)
ABC Infinite 675Wp VS TOPCon610Wp
ABC Infinite Installation Capacity 110.7MW vs. TOPCon 100MW
Module Type: 2382*1134

Customer Values- German Residential Distributor / Installer

High Power

40w/Module

9.1%

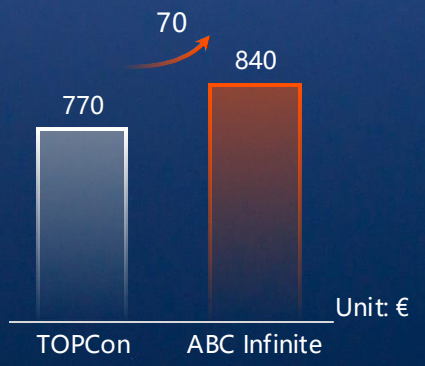


High Revenue

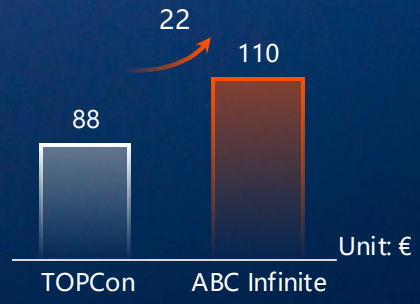
Excess Profit

48€+/Module

70 - 22 = 48€



Revenue per Module



Price per Module

ABC Infinite 480W VS TOPCon 440W
Module Tyoe: 1762*1134
Installer Selling Price: 0.23 €/W
Bank Loan: 20% Upfront-payment, 10 years loan, 4.5% interest rate

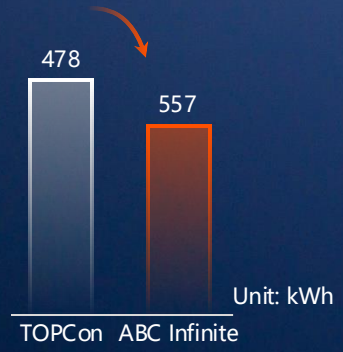
Customer Values- German Residential Owner

High Revenue

Annual Energy Generated Increased by

59kWh

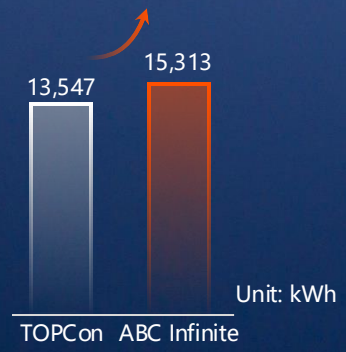
/per module



25 Years Energy Generated Increased by

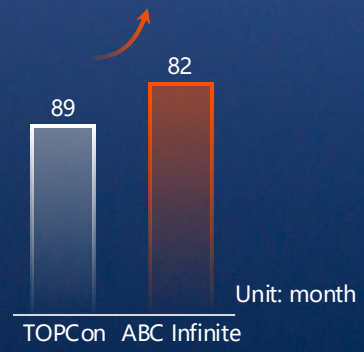
1,766kWh

/Module



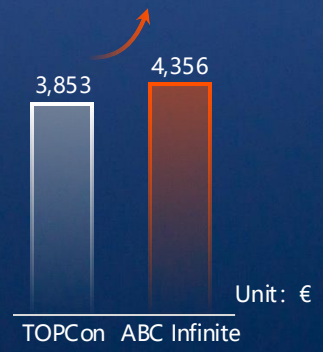
Payback Period shortened by

7month



30 years Revenue

503€/Module



Extra Revenue: Widen customer acquisition channels, Partial Shading Optimization, Better Temperature Coefficient, Lower Degradation

Ultra Safety

Micro-crack Resistance

High Temperature Restriction

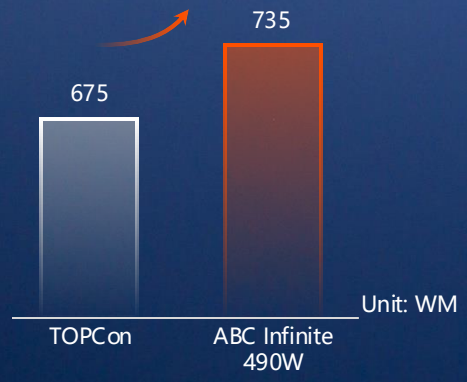
ABC Infinite 480W VS TOPCon 440W
Module Tyoe: 1762*1134
Owner purchasing Price: 0.23 €/kWh
Bank Loan: 20% Upfront-payment, 10 years loan, 4.5% interest rate

Customer Values- DE C&I EPC

High Power

Installation capacity increased by

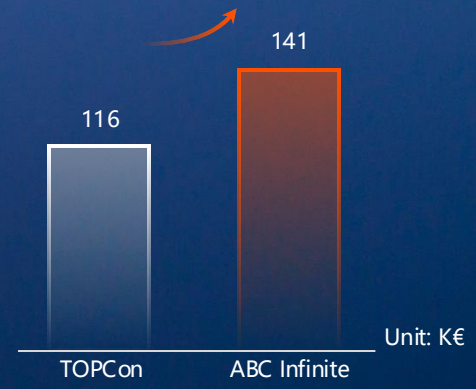
8.9%



High Revenue

Same Rooftop, profit increased by

21.5%



Extra Revenue: Partial Shading Optimization, Better Temperature Coefficient, Lower Degradation

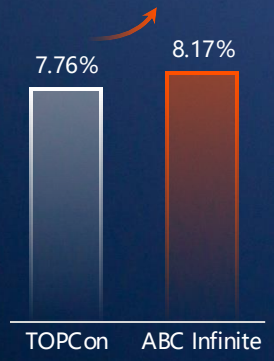
Location: Germany, 4,000 m2 C&I Rooftop
ABC Infinite 490W VS TOPCon 450W
Module Tyoe: 2382*1134
EPC Contract Price: 0.75€/W

Customer Values- DE C&I Owner

High Revenue

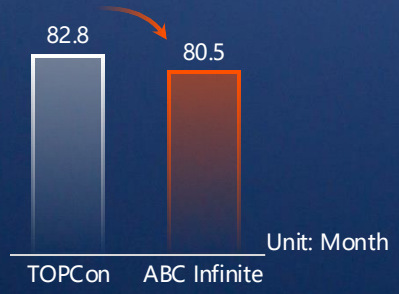
IRR Increased by

5.3%



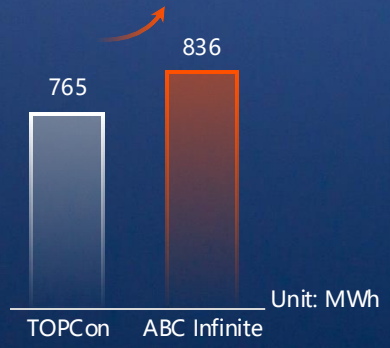
Break-even point shortened by

2 Months



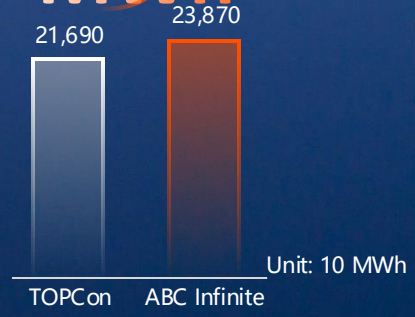
Annual Energy Generated Increased by

71 MWh



25 Years Energy Generated Increased by

2,180 MWh



4,000 m^2 Rooftop

Ultra Safety

Micro-crack Resistance

High Temperature Restriction

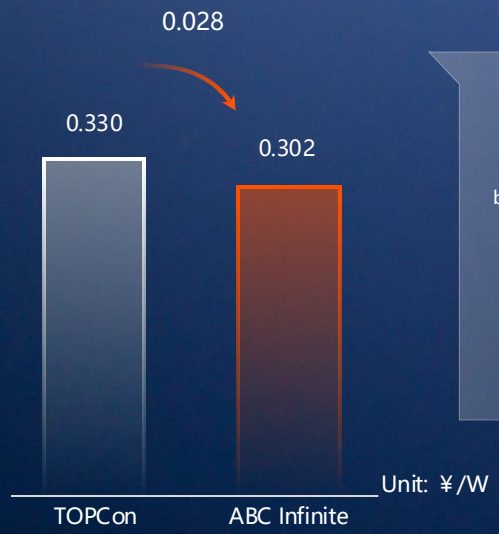
Location: Germany, 4,000 m2 C&I Rooftop
ABC Infinite 490W VS TOPCon 450W
Module Tyoe: 2382*1134
EPC Contract Price: 0.75€/W
Consolidated Electricity Price: 0.127€/kWh

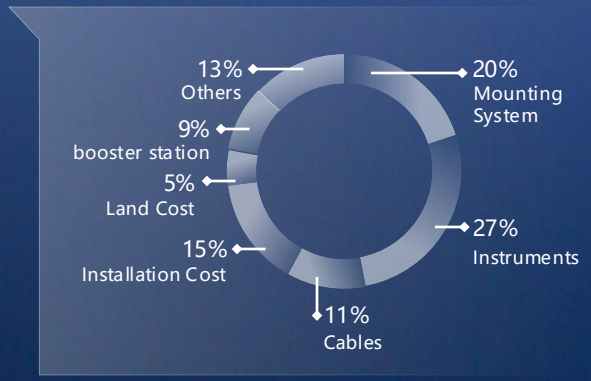
Customer Values – Germany Utility

LCOE Decreased by 7.2%

BOS Decreased by

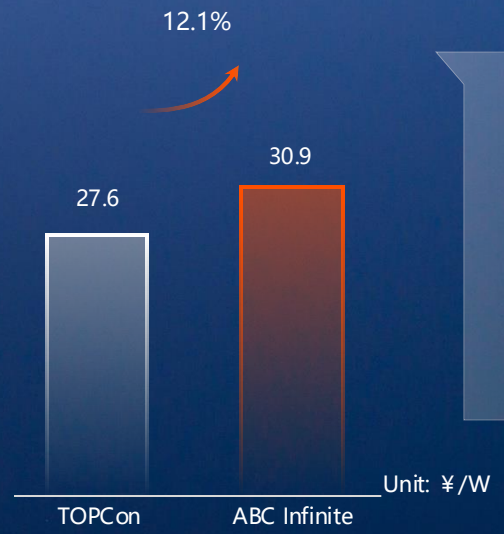
8.4%





30 Years Energy Generated Increased by

12%+



- Installation capacity increased 10.7%
- Partial Shading Optimization
- Better Temperature Coefficient
- Lower Degradation

1,600,000 m2 project (Same land area)
ABC Infinite 675Wp VS TOPCon610Wp
ABC Infinite Installation Capacity 199MW vs. TOPCon 180MW
Module Type: 2382*1134


AIKO
Customer Satisfaction
Full
Light Absorption
Full
Efficiency
Full
Aesthetics
Full
Values
High Power, High Revenue, Ultra Safety


AIKO
More new products to
look forward to