



Sino-American Silicon Products Inc.





#### Financial Result of 2<sup>nd</sup> Quarter 2017

Aug, 2017

#### **Legal Disclaimer**



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### **Solar Business Sector**











Established : 1981

Paid-in Capital : TWD 5,800mn

Employees : 8,495 (2017/06)

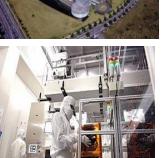
Headquarter : Hsinchu Science Park, Taiwan R.O.C.

Products : Solar Wafer / Cell / Module / Power Plant

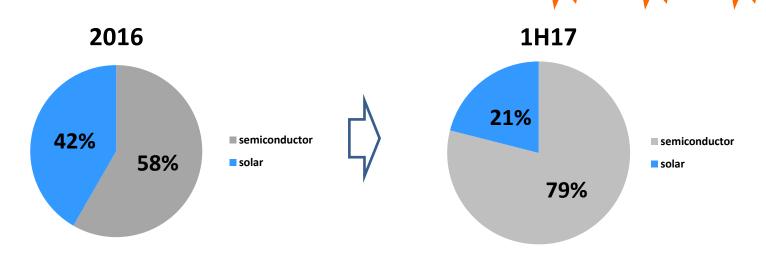
Semiconductor Wafer (3"~12")

Revenue







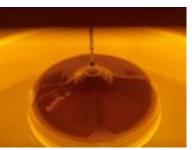


#### **Milestones**



| 1981 | Sino-American Silicon Products Inc. established |
|------|-------------------------------------------------|
| •••• |                                                 |

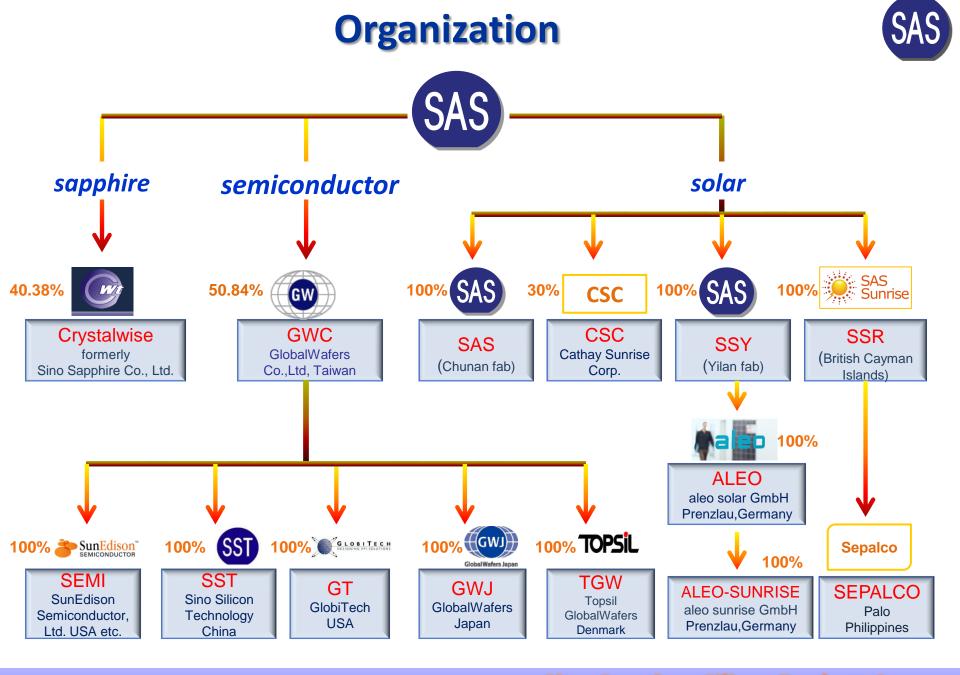
- 1999 SST established in China
- Enter Solar Ingot / Wafer Business
- SAS IPO in Taiwan (5483 TT)
- Acquired GlobiTech Incorporated, TX, USA
- Company spin off SAS / GWC / SSC
- Acquired Covalent Silicon, Japan
- Acquired ALEO module fab of Bosch group, Germany Merged Sunrise Global Solar Energy Co., Ltd. Taiwan
- SAS Sunrise Inc. (SSR) established for Solar Power Plant, Project Palo ground breaking
- **GWC IPO in Taiwan (6488 TT)**
- 50MW Power Plant(Project Palo) completed in Mar 2016
- Acquired Topsil Semiconductor Materials A/S (Denmark) silicon (FZ and CZ) activities
- Acquired SunEdison Semiconductor, Ltd. (SEMI)











## **SAS Group (Solar)**





#### **SAS Consolidated Financial Statements**



| TWD mn                  | 2014   | %   | 2015   | %   | 2016    | %   | 1H17   | %   |
|-------------------------|--------|-----|--------|-----|---------|-----|--------|-----|
| Revenue                 | 27,821 | 100 | 28,269 | 100 | 31,599  | 100 | 27,592 | 100 |
| GM                      | 3,498  | 13  | 4,271  | 15  | 3,435   | 11  | 4,351  | 16  |
| OI                      | 1,447  | 5   | 2,237  | 7   | 42      | 0   | 1,948  | 7   |
| PBT                     | 1,925  | 7   | 1,960  | 6   | (856)   | (3) | 1,082  | 4   |
| PAT                     | 1,128  | 4   | 535    | 1   | (1,589) | (5) | (276)  | (1) |
| Total Debt & Debt ratio | 19,304 | 47  | 17,617 | 38  | 55,787  | 67  | 39,266 | 50  |
| <b>ROE (%)</b>          | 6.16   |     | 4.21   |     | (6.16)  |     | 1.36   |     |
| EPS                     | 2.06   |     | 0.93   |     | (2.77)  |     | (0.48) |     |

#### **SAS Consolidated Financial Statements**



| TWD mn                  | 1Q16   | %   | 2Q16   | %   | 3Q16    | %    | 4Q16   |     |  |
|-------------------------|--------|-----|--------|-----|---------|------|--------|-----|--|
| Revenue                 | 7,091  | 100 | 7,549  | 100 | 7,184   | 100  | 9,775  | 100 |  |
| GM                      | 1,123  | 16  | 1,363  | 18  | 220     | 3    | 729    | 7   |  |
| OI                      | 567    | 8   | 780    | 10  | (404)   | (6)  | (901)  | (9) |  |
| PBT                     | 398    | 6   | 514    | 7   | (1,058) | (15) | (710)  | (7) |  |
| PAT                     | 207    | 3   | 292    | 4   | (1,304) | (18) | (784)  | (8) |  |
| Total Debt & Debt ratio | 17,850 | 37  | 19,676 | 39  | 20,600  | 43   | 55,787 | 67  |  |
| <b>ROE (%)</b>          | 1.16   |     | 1.54   |     | (4.13)  |      | (4.34) |     |  |
| EPS                     | 0.36   |     | 0.51   |     | (2.27)  |      | (1.37) |     |  |

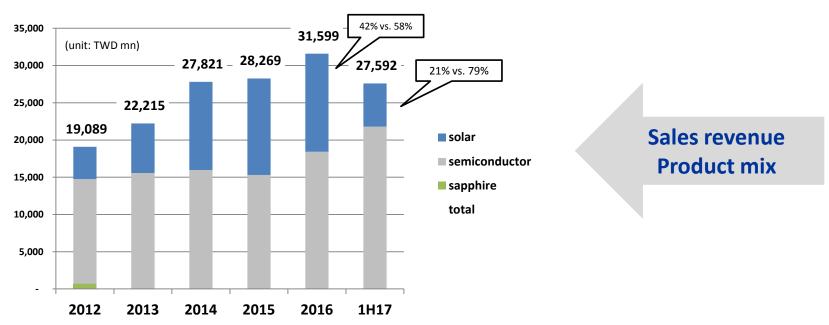
#### **SAS Consolidated Financial Statements**



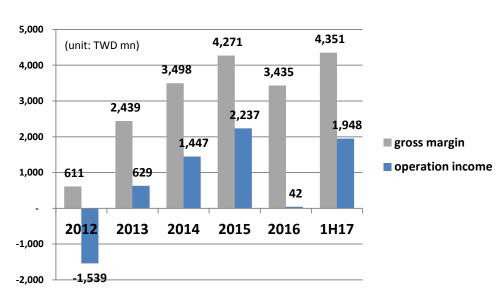
| TWD mn                  | 1Q17   | %   | 2Q17   | %   | % |  |
|-------------------------|--------|-----|--------|-----|---|--|
| Revenue                 | 13,577 | 100 | 14,015 | 100 |   |  |
| GM                      | 1,847  | 14  | 2,504  | 18  |   |  |
| OI                      | 647    | 5   | 1,301  | 9   |   |  |
| PBT                     | (9)    | 0   | 1,091  | 8   |   |  |
| PAT                     | (405)  | (3) | 128    | 1   |   |  |
| Total Debt & Debt ratio | 54,424 | 66  | 39,266 | 50  |   |  |
| <b>ROE (%)</b>          | (1.06) |     | 2.35   |     |   |  |
| EPS                     | (0.7)  |     | 0.22   |     |   |  |

#### SAS – Financial Statements 2012~2017





**Gross margin Operation Income** 



## **SAS Solar Manufacturing Site**

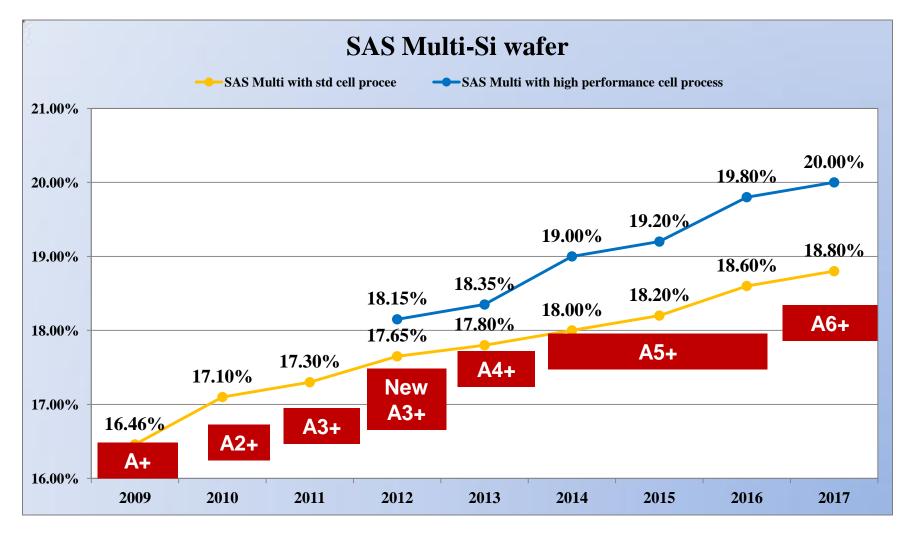


(unit: MW)

|   | Company        | Products   | 2015  | 2016  | 2017   | Location |  |
|---|----------------|------------|-------|-------|--------|----------|--|
|   | SAS            | Wafer      | 1,000 | 1,000 | 1,000  | Taiwan   |  |
| S | SAS            | Cell       | 800   | 800   | 800    | Taiwan   |  |
| A | Aleo-Sunrise   | Cell       | 0     | 200   | 200    | Cormany  |  |
| S | aleo           | Module     | 340   | 340   | 340    | Germany  |  |
|   | SAS<br>Sunrise | Solar Farm | 0     | 70    | 50~100 | Taiwan   |  |
|   | CSC            | Solul Turm |       | 70    | 30 100 | Japan    |  |

## Multi Wafer Technology Roadmap



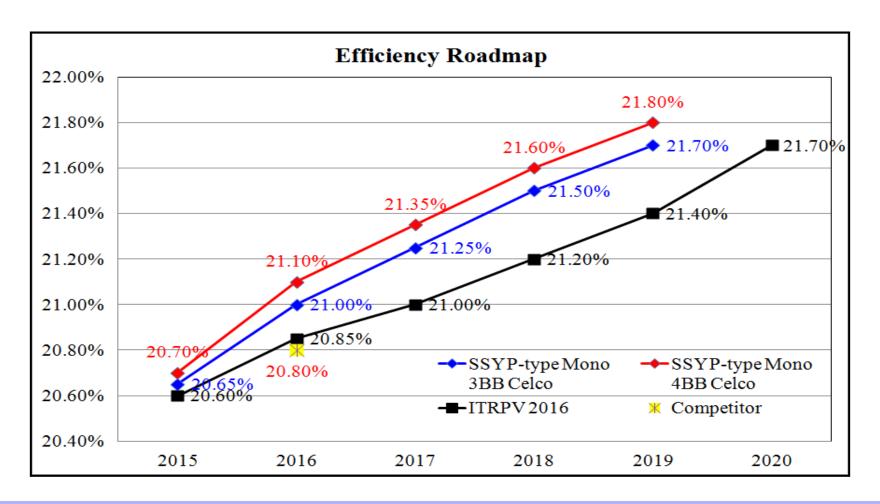


## continued to improve 7

#### **SAS Cells Performance**



SAS's cell efficiency is higher than industry standards



## Presence along the solar value chain











**CSC** 

Silicon

Wafer

Cell

Module

D2D **Sales** 

**Project** Development

**Project** Investment

Yield Co.





Ingot















- DSS **Technology**
- High Eff.
- High Eff. Multi-
- wafer
- Robust wafer (R-Wafer)
- High Eff. cell Celco
  - next generation
    - Celco
- High Eff. module

- Premium Direct to dealer segment
- Made in Germany
- >300W customers output worldwide

- Feasibility study
- More than Site
- 2,100 selection
  - Energy Yield
    - Prediction Permits&

    - Licensing

- Insurance
- Legal & **Technical**
- **Due Diligence**
- **Economic** and Financial Modeling
- Plant Design
- Construction
- Commissioning
- Operations & Maintenance

- **Portfolios** Management
- Stable Performance
- Long Term Investment Return
- Risk Control



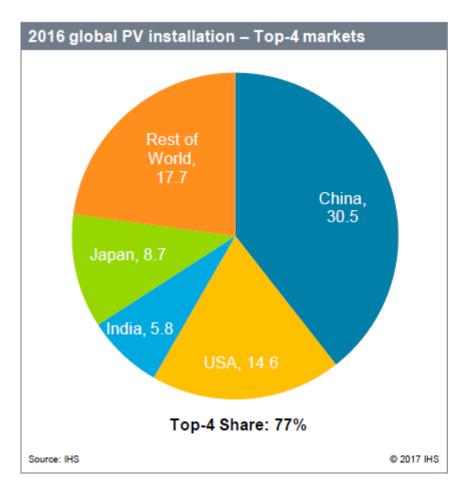
SAS dedicate to provide the PV Total Solutions with Competitive LCOE and WACC.

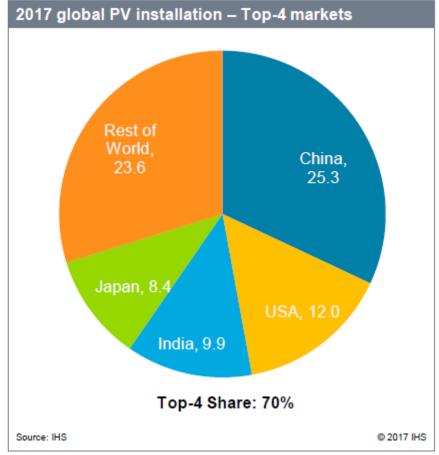
能源計算器的平準化成本Levelized cost of electricity (LCOE) 加權平均資本成本(Weighted Average Cost of Capital, WACC)

#### **Global PV Installation**



Top 4 share more than 70% market, India indicates growth

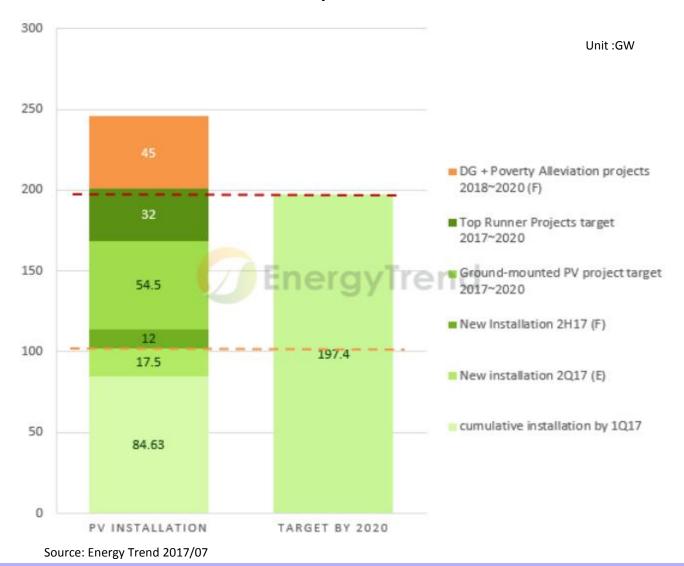




## **China PV Industry**



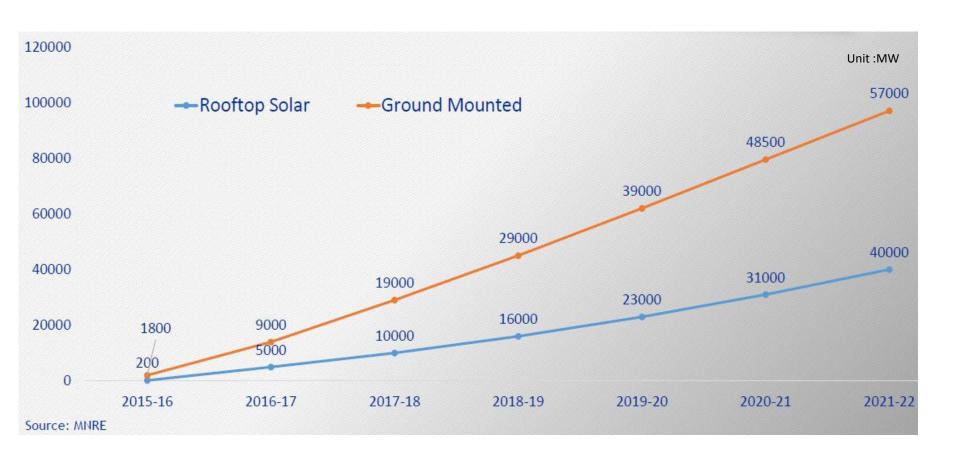
#### Could reach 250GW cumulative PV installation by 2020



### **India PV Industry**



#### 100GW cumulative PV installation target by 2022

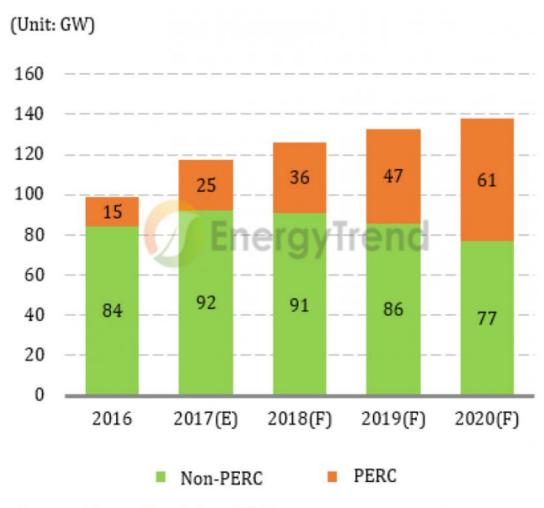


Source: Energy Trend 2017/07

#### **Global Production Capacity for PV Cells 2016~2020**



#### PERC migration increasing from 2016



Source: EnergyTrend, Jan., 2017

# US AD rates review(1st) of Taiwanese Cell Suppliers



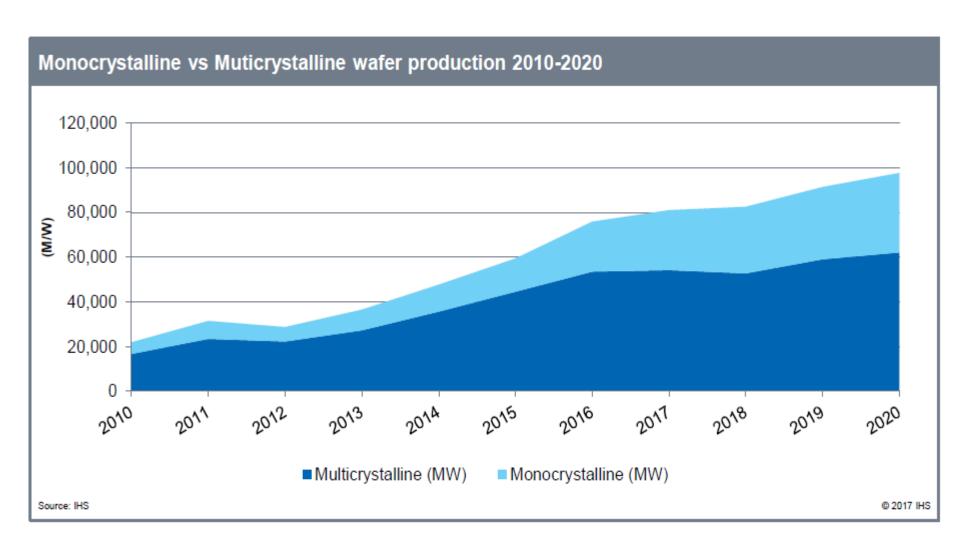
| Company                                | Tariff Rate (%) |
|----------------------------------------|-----------------|
| Sino-american Silicon Products Inc.    | 3.50            |
| Solartech Energy Corp.                 | 3.50            |
| Motech Industries, Inc.                | 4.20            |
| AU Optronics Corporation               | 4.09            |
| EEPV CORP.                             | 4.09            |
| E-TON Solar Tech. Co., Ltd.            | 4.09            |
| Gintech Energy Corporation             | and 4.09        |
| Inventec Energy Corporation            | 4.09            |
| Inventech Solar Energy Corporation     | 4.09            |
| Kyocera Mexicana S.A. de C.V.          | 4.09            |
| Sunengine Corporation Itd.             | 4.09            |
| Sunrise Global Solar Energy            | 4.09            |
| TSEC Corporation                       | 4.09            |
| Win Win Precision Technology Co., Ltd. | 4.09            |

Source: US DoC Energy Trend, Mar 2017

## Monocrystalline vs. Multicrystalline Wafer



Monocrystalline wafer production gains momentum in 2016 & will continue growing until 2020



# **SAS Dividend Policy**



| <u>Year</u> | <u>EPS</u> | <u>Dividend</u> |
|-------------|------------|-----------------|
| 2013        | TWD 0.57   | TWD 1.0         |
| 2014        | TWD 2.06   | TWD 1.8         |
| 2015        | TWD 0.93   | TWD 1.5         |
| 2016        | TWD (2.77) | TWD 1.5         |
| 1H17        | TWD (0.48) | -               |



