Singapore Company Focus

Sunpower Group Ltd

Bloomberg: SPWG SP | Reuters: SUNP.SI

Refer to important disclosures at the end of this report

DBS Group Research . Equity

16 Dec 2019

BUY

(Initiating Coverage)

Last Traded Price (13 Dec 2019): S$0.59 (**STI :** 3,214.05)

Price Target 12-mth: S$0.81 (38% upside)

Potential Catalyst: New plant projects or acquisitions, large orders

Analyst

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Price Relative

Forecasts and Valuation

FY Dec (RMBm)	2018A	2019F	2020F	2021F
Revenue	3,263	3,873	4,261	4,365
EBITDA	472	634	686	760
Pre-tax Profit	395	286	290	350
Net Profit	321	206	205	243
Net Pft (Pre Ex.)	235	296	313	373
EPS (S cts)	8.11	5.20	5.17	6.12
EPS Pre Ex. (S cts)	5.95	7.45	7.88	9.40
EPS Gth (%)	112	(36)	(1)	19
EPS Gth Pre Ex (%)	68	25	6	19
Diluted EPS (S cts)	5.71	3.41	3.38	4.01
Net DPS (S cts)	0.18	0.18	0.18	0.18
BV Per Share (S cts)	40.2	45.1	50.1	56.0
PE (X)	7.3	11.4	11.4	9.6
PE Pre Ex. (X)	9.9	7.9	7.5	6.3
P/Cash Flow (X)	11.2	nm	6.7	5.3
EV/EBITDA (X)	8.2	7.3	6.8	5.8
Net Div Yield (%)	0.3	0.3	0.3	0.3
P/Book Value (X)	1.5	1.3	1.2	1.1
Net Debt/Equity (X)	0.7	1.0	0.9	0.7
ROAE (%)	22.5	12.2	10.9	11.5
Consensus EPS (S cts):			6.0	7.3
Other Broker Recs:		B: 2	S: 0	H: 0

GIC Industry : Industrials

GIC Sector: Capital Goods

Principal Business: Sunpower Group is a China-focused steam, electricity and heat solutions provider that manufactures energy saving and environment protection products.

Source of all data on this page: Company, DBS Bank, Bloomberg Finance L.P.

Full steam ahead

- First mover advantage leveraging on environmental protection trend and backed by stable recurring revenue
- Steam plants expansion buoyed by defensive textile industry
- Further RMB2.3b injection into green investments to cement dominant position; Manufacturing & Services (M&S) segment is group's backbone
- Initiate with BUY and DCF-based TP of S$0.81

Green investments (GI) offers a perfect blend of growth and stability. Sunpower's new GI business offers resilience with its large exposure to defensive industries. The segment is also aided by supportive government regulations and a global push for environment protection. GI revenue is also recurring in nature, backed by long concessions of around 30 years. As a first mover equipped with proprietary technologies, Sunpower is able to demand prepayments from its customers and generate high operating cash flows in GI.

GI organic growth to complement RMB2.3b in expected GI investments. We believe Sunpower will invest a further RMB2.3b in GI assets by FY21 to attain its equity investment target of RMB900m. These new investments may potentially generate c.RMB970m and c.RMB275m in revenue and operating income. Additionally, Sunpower is expected to further expand organically as plant utilisations still have room for growth. This combined with the steady closure of small boilers and shifting of businesses to industrial parks will drive organic growth for existing plants.

Margin improvement in traditional manufacturing and services (M&S) driven by peak factory utilisation. Sunpower's M&S factory is operating at close to full utilisation on an order book of RMB2.5b. The group is in a good position to cherry pick higher margin projects while keeping its order book steady.

Valuation:

Initiate with BUY and DCF-based TP of S$0.81. Our valuation excludes a potential RMB2.3b in GI projects that Sunpower is expected to invest in by FY21F. We estimate that including these projects would lead to FY22F earnings expanding by c.42% y-o-y.

Key Risks to Our View:

Downside risks to our call include unfavorable changes in the regulatory environment; steep rise in coal prices.

At A Glance

Issued Capital (m shrs)	395
Mkt. Cap (Sm/USm)	233 / 172
Major Shareholders (%)	
Gua Hong Xin	19.0
Ma Ming	17.0
Lin Yucheng	12.3
Free Float (%)	41.2
3m Avg. Daily Val (US$m)	0.53

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Investment Summary

Initiating coverage with BUY; DCF-based TP of S$0.81. We believe Sunpower's GI business is resilient with its large exposure to defensive industries. The segment is also aided by supportive government regulations and a global push for environment protection. Revenue is recurring in nature, backed by long concessions of typically 30 years. The M&S segment should remain robust with both local and global demand for petrochemicals driving orders. Margins are likely to improve as Sunpower shifts toward higher margin contracts and as it approaches peak factory utilisation. Overall, Sunpower's robust outlook backed by solid capital partners could propel its share price to levels seen in early 2017.

GI segment is a potential cash cow in the mid to long-term. Sunpower's GI segment has the potential to generate steady earnings with strong cash flows in the mid to long-term. The group's GI plants burn coal for fuel to supply steam to end-sector customers in a diverse range of industries. Based on our analysis, Sunpower's GI plants are mostly exposed to the defensive textile industry (printing and dyeing). This should enable the segment to maintain stable earnings growth even in times of uncertainty.

Sunpower's GI plants and customers

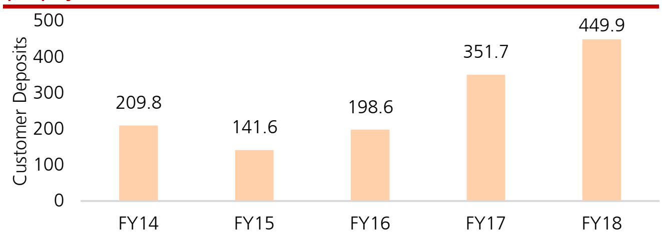
Plant	Customers Profile
Changrun	~70 customers in textile and dyeing
Xinyuan	Steam to customers and heat to local residents housed over a 2.0m sqm area
Lianshui	~20 customers from diverse industries
Quanjiao	~10 customers from diverse industries
Yongxing	~130 customers in textile, chemical and metallurgy
Suyuan	~49 customers in printing & dyeing
Shantou	~128 customers in printing & dyeing
Xintai Zhengda	Customers in diverse industries and residents

Source: Company, DBS Bank

Sunpower enjoys a natural monopoly in GI. As a first mover, Sunpower's GI segment reaps the benefit of a captive customer base. Specifically, we think competitors are prevented from building new plants situated near Sunpower's existing plants due to direct competition, regulatory hurdles and poor economics. Sunpower is effectively able to achieve a natural monopoly in the areas that its plants serve.

Additionally, Sunpower's steam distribution pipeline networks are highly efficient, possessing the ability to cover a wide radius with lower temperature loss relative to the industry. This technology complements its first mover advantage and enables the group to have high bargaining power with its customers. As a result, Sunpower is able to obtain prepayments from its customers and generate high GI operating cash flows.

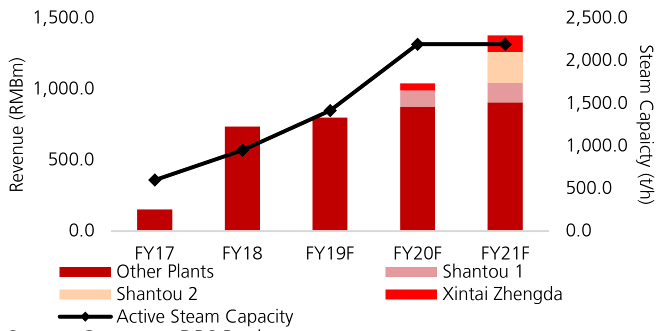
Sunpower's high bargaining power enables it to obtain higher prepayments from customers (RMBm)



Source: Company, DBS Bank

New GI plants to boost segment revenue by 65.9% by FY21F. Sunpower's upcoming two plants - Shantou Phase 1 & 2 and Xintai Zhengda - are expected to be completed in 2020. Shantou Phase 1 will begin trial production by the end of FY19 while works for Shantou Phase 2 are in progress. The plants are expected to expand active steam capacity by 820 tons/hour (t/h) and 260t/h respectively. This should translate to top line and operating income contribution of RMB497.3m and RMB124.9m by FY21F.

GI revenue and active steam capacity forecast (RMBm or t/h)



Source: Company, DBS Bank

Future equity investments of RMB900m into GI segment to provide more upside. As of 3Q19, Sunpower has made equity investments of c.RMB1.6b, on track to hit its target of RMB2.5b by 2021. While we have not accounted for Sunpower's pipeline of projects that are not under construction in our valuation, we estimate that the additional equity investments could increase Sunpower's revenue by c.RMB970m (c.25%) and operating income by c.RMB275m (c.58%) respectively from FY19F levels.

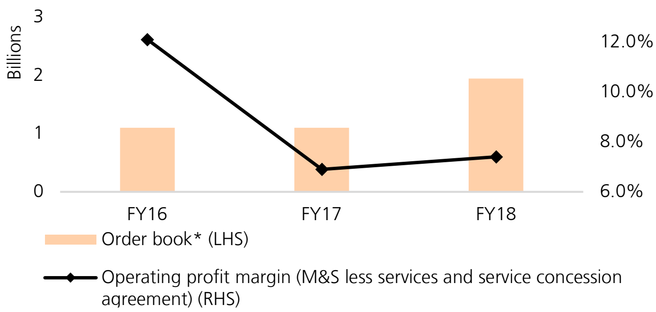
Sunpower's pipeline of projects

Plant	Investment Required (RMBm)
Liutuan	340
Xinjiang	260
Yingtan	53

Source: Company, DBS Bank

M&S segment forms the backbone of the group. Sunpower's traditional M&S business remains a bulwark against economic fluctuations, with factory utilisation almost full and order book at a record RMB2.5b as at end-3Q19. While capacity for the M&S segment is not expected to grow any further, we believe that order book value still has room to rise as peak factory utilisations enable the group to cherry pick higher margin orders.

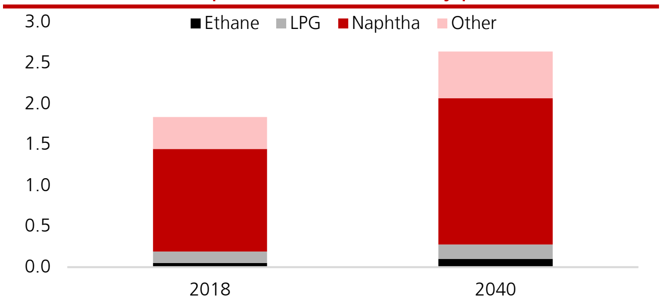
EBIT margins recovering as order book grows (RMB)



**As at Feb of every year*
Source: Company, DBS Bank

Petrochemicals to sustain order book momentum. Petrochemical demand in China and rest of Asia is expected to see continued growth, driven by demand for petrochemical products as an intermediate material for production of finished products such as plastics. Indeed, OPEC is forecasting Chinese demand for petrochemical products to rise to c.2.6m barrels per day (b/d) in 2040 from c.1.8mb/d in 2018. This is positive for Sunpower's M&S order book, with the segment largely serving Chinese petrochemical companies such as Sinopec.

Chinese demand in petrochemical sector by products (mb/d)



Source: OPEC, DBS Bank

Proprietary technologies and favourable regulatory environment an investment moat. Sunpower's products produce lower emissions and work at a more efficient rate compared to current standards in the industry. We believe this bodes well for the group given the green push by the Chinese government that is increasingly being reflected in the government's policies. For example, China has increased its environmental protection budget to c.1.2% of GDP (similar to Western European countries). More relevant to Sunpower however is the government's mandate that outlawed the usage of small boilers.

Sunpower's proprietary technologies

Technology	Standard	Sunpower	Industry
Steam Distribution Pipelines	Temperature Loss (°C/Km)	≤5	15
	Differential Pressure (MPa/Km)	0.015 – 0.05	0.06 – 0.1
	Coverage Radius (Km)	30	8
Coal-fired power generating boilers	Dust Emitted (mg/m^3)	<5	30/5*
	Sulphur Dioxide Emitted (mg/m^3)	<35	100/35*
	Nitrogen Oxide Emitted (mg/m^3)	<50	100/50*

*Reflects national regulation standard for coal-fired/natural gas power-generating boilers
Source: Company, DBS Bank

Capital recycling options on the cards. Sunpower aims to hit RMB2.5b in GI equity by 2021. Thereafter, we think the group will explore options to pare down debt. This may include sourcing for co-investments or a partial stake sale of assets. Alternatively, the group could be the subject of a takeover similar to the one seen at United Envirotech. United Envirotech issued convertible bonds to KKR in 2011 before receiving a further equity injection in 2013. A year later, United Envirotech was jointly taken over by KKR and CITIC and renamed CITIC Envirotech shortly after. The current Executive Chairman of Sunpower's capital partner (DCP Capital Partners), was the CEO of KKR Greater China and co-head of KKR Asia Private Equity. Clearly, the links point to such a possibility.

Supported by strong and reputable capital partners. Private equity (PE) firms DCP Capital Partners (DCP) and CDH China Management (CDH) have invested in Sunpower through their respective convertible bonds (CB1 and CB2). The former is led by ex-partners of KKR, one of the largest PE firms in the world, while the latter manages over US$17b of assets. PE firms are known to provide a wide range of support to their partners that may include funding, advice and a network to tap on. Indeed, we think Sunpower is supported by understanding capital partners as evident in their willingness to renegotiate the performance targets set in the convertible bond deal.

Companies that have received DCP or CDH investment*

中国平安 PING AN 保险·银行·投资
CICC 中金公司
Midea

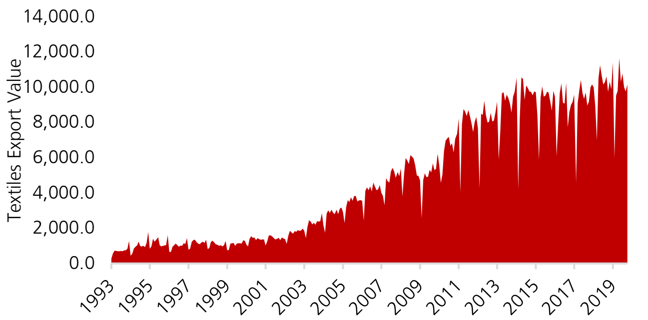
**not exhaustive*
Source: DCP, CDH, DBS Bank

A Deeper Dive into Green Investment

Sunpower's GI plants are regulated private monopolies. Barriers to entry in this industry are high due to the high start-up costs in building a plant and its distribution network. Additionally, the local government might not approve of having duplicated networks from a competitor. As a result, Sunpower's GI plants are natural monopolies with a captive customer base to tap on. That said, the plants face regulation by the government in the form of price caps set.

GI segment counts the defensive textile industry as a major customer. Based on our analysis, the defensive textile printing and dyeing industry form Sunpower's largest GI customers. According to the World Trade Organisation (WTO), China was the world's largest exporter of textiles with US$119b exported in 2018. The country is strongly embedded in the textile value chain serving many apparel-focused countries such as Vietnam. Even as China is engaged in the trade war with the US, the country still managed to grow exports of textiles yarn, fabrics and make up articles by 0.3% y-o-y for 10M19.

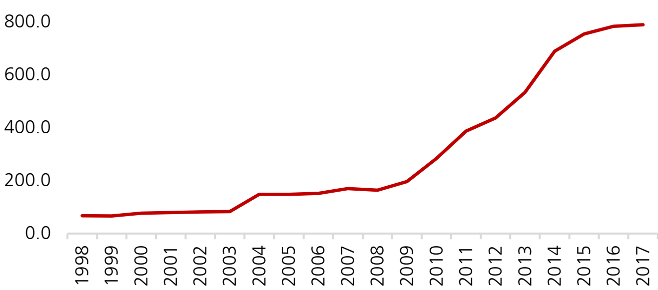
Chinese exports for textiles yarn, fabrics and make up articles have sustained despite trade war (US$m)



Source: CEIC, DBS Bank

On the domestic front, textiles trade has grown from RMB532.2b in 2013 to RMB788.1b in 2017 and has plateaued in recent years. The textiles industry appears to be replicating the stability seen in textile exports.

China domestic trade value of knitwear and textiles (RMB b)



Source: CEIC, DBS Bank

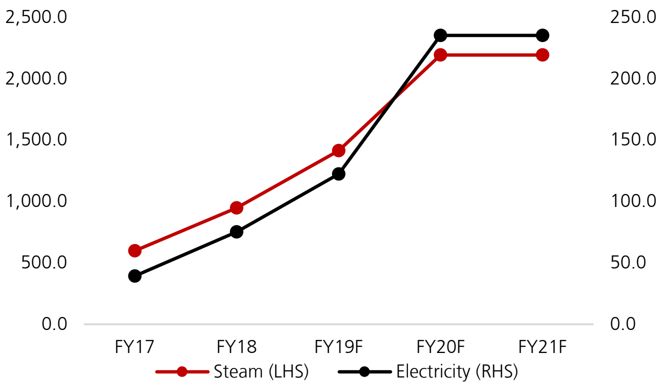
China's green push has led to a favourable regulatory environment. Air pollution is a major problem in Chinese cities. For example, in Beijing, the annual mean PM2.5 was at 89.5µg/m³, far higher than the World Health Organization's recommended level of 10µg/m³. Air pollution is just one example of the many environmental concerns faced by China. China has been active in tackling these issues, implementing policies such as the mandatory closure of small boilers and relocating pollutive industries to specialised industrial parks. We think these policies are positive for Sunpower, generating more demand for steam while cementing the group's dominant position in the industry.

Relevant environmental policies in China

Policy	Description
Three-year Action Plan for Winning the Blue Sky War	15% reduction in total emissions of sulphur dioxide and nitrogen oxide by 2020 from 2015 levels
Amendments to national standards for pollutant discharge	For coal-fired power boilers Sulphur dioxide: 50mg/m³ Nitrogen oxide: 100mg/m³
Comprehensive rectification of coal-fired boilers	At the county level and above, small coal-fired boilers with capacity of 10t/h and below will be phased out In key areas*, coal-fired boilers of less than 35t/h will be eliminated and replaced with coal-fired boilers of 65t/h or more capacity with energy-saving and ultra-low emission characteristics

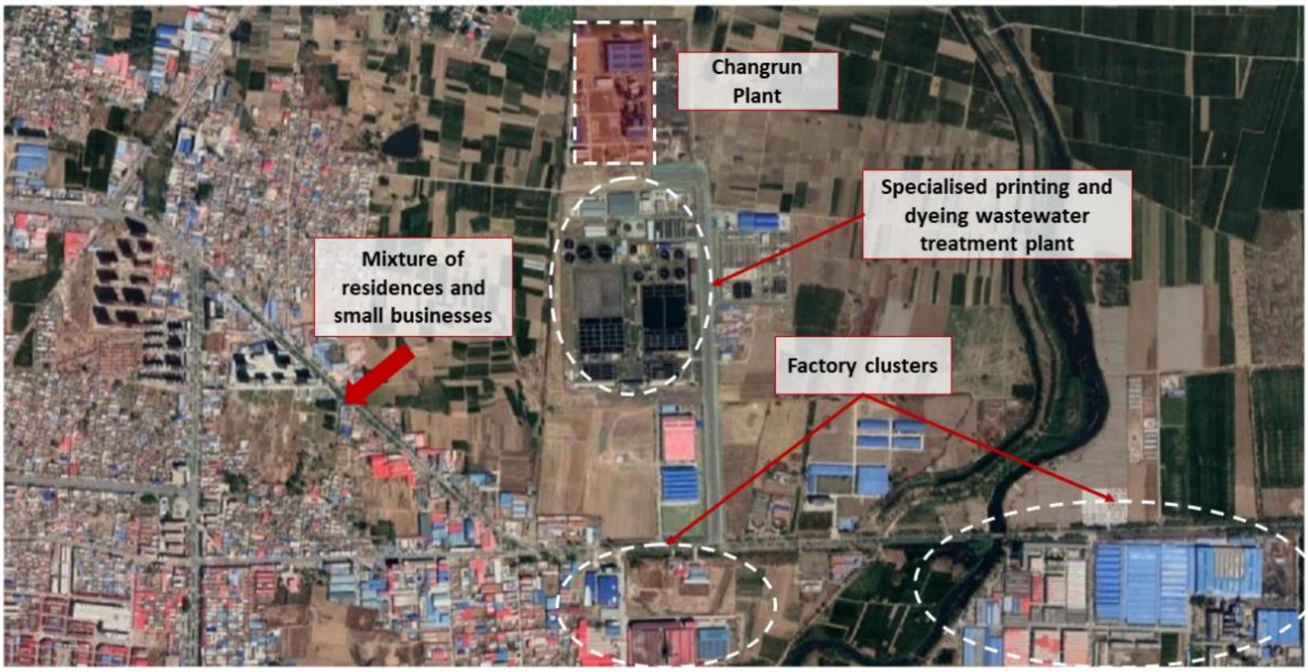
**key areas include Beijing-Tianjin-Hebei region, Yangtze River Delta region, Pearl River Delta*
Source: China State Council, Company, DBS Bank

Active capacity increase to drive revenue and income (t/h)



Source: Company, DBS Bank

Illustration of Changrun GI Plant



Source: Company, DBS Bank

Valuation

Initiate with BUY and DCF-based TP of S$0.81. Sunpower's strong future cash flow generating ability justifies the use of discounted cash flows as a valuation methodology. Additionally, valuation multiples such as PE may be skewed by SCA revenue where periods of heavy construction activity may result in temporarily higher earnings which may not be repeated in the following years.

Our DCF model assumes cost of equity of 12.5% based on a risk-free rate of 3.2%, market return of 11.8% for the China market, and beta of 1.1. As Sunpower is partially financed by convertible bonds, we calculated the cost of convertible bond financing to be 5.7% by dividing the convertible bond into two parts i.e. straight bond and conversion option. Additionally, we obtained an after-tax cost of debt of 4.5% based on an effective tax rate of 25% and cost of debt of 6.0%. Based on WACC of 7.9%, and terminal growth rate of 1%, we derived an equity value of RMB4,885.4m. This translates to an equity value of S$950.2m and share price of S$0.81.

Our TP has yet to include c.RMB900m equity investment relating to pipeline projects under consideration by Sunpower. The successful award of these projects would represent further upside for Sunpower's earnings and valuation.

Discounted Cash Flow Model: TP of S$0.81

FY (RMBm)	20F	21F	22F	Terminal Value
Operating Profit	511.1	577.6	616.7	
Add: Depreciation & Amortisation	172.9	180.1	183.3	
Less: Tax Provision	(72.4)	(87.4)	(116.2)	
Less: Capex	(402.2)	(158.0)	(159.7)	
Add: Decreases in Working Capital	(39.1)	(17.0)	(15.4)	
Total FCF to the Firm	170.3	495.3	508.7	8,631.6
Discounted FCF	**157.8**	**425.6**	**405.2**	**4,043.7**

Risk-free Rate (Rf)	3.2%	Proportion of Debt Financing	40.9%
Equity Risk Premium	8.6%	Proportion of Equity Financing	41.0%
Beta	1.1	Proportion of CB Financing	18.0%
Cost of Equity	12.5%	WACC	7.9%
After-tax Cost of Debt	4.5%	Terminal Growth	1.0%
		PV of FCF	3,389.6
Straight Bond Portion	85.3%	PV of Terminal Value	4,043.7
Conversion Option Portion	14.7%	Net Cash (Debt)	(2,299.3)
Cost of Convertible Bond	5.7%	Minority Interest	(248.7)
		Equity Value (RMBm)	4,885.4
		Fully Diluted Shares (m)	1,172.3
		DCF-based TP (S$)	**0.81**

WACC \ Terminal growth rate	0.50%	0.75%	1.00%	1.25%	1.50%
6.9%	$0.95	$0.99	$1.02	$1.06	$1.11
7.4%	$0.85	$0.88	$0.91	$0.94	$0.97
7.9%	$0.76	$0.78	$0.81	$0.83	$0.86
8.4%	$0.68	$0.70	$0.72	$0.74	$0.77
8.9%	$0.61	$0.63	$0.64	$0.66	$0.68

Source: DBS Bank

Key Risks

Regulatory risk. The Chinese government has been a key driver of Sunpower's business, having rolled out regulations that prohibited the use of environmentally unfriendly products such as the ban on "dirty" and small boilers in favour of larger and more efficient centralised boilers. A change in policy by the government could lead to a drop in demand for steam produced by centralised plants. That said, we believe such a situation is unlikely given the objectives laid out in China's Five-Year Plan.

Another potential risk lies in Sunpower's steam tariffs. While Sunpower's GI plants enjoy the perks of being a natural monopoly, they are subject to price caps set by the local government. Sunpower's GI plants are only free to adjust steam prices as long as prices do not exceed the price cap. Therefore, Sunpower may face hurdles in future should the group choose to raise prices beyond the price cap.

Technological risks. A large part of Sunpower's business revolves around its technological competitive advantage. For example, Sunpower has developed proprietary technologies that reduce the amount of dust, sulphur dioxide and nitrogen oxide emitted by coal-fired boilers. Development of new technologies capable of surpassing Sunpower's could pose a risk for the group.

Sunpower's key technological advantages

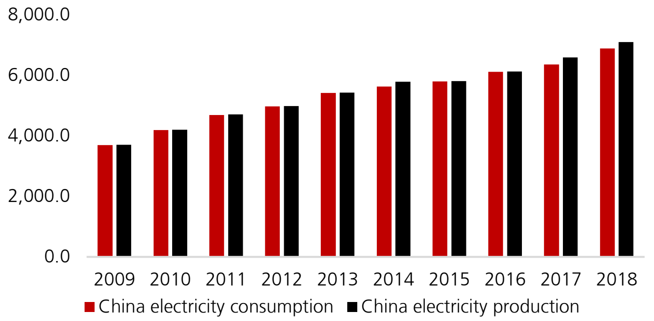
Technology	Advantage
Steam distribution pipelines	Pipelines are able to cover a further distance with lower temperature loss
Energy saving	Heat exchangers are highly efficient
Environmental protection	Boilers emit lower amounts of dust, sulphur dioxide and nitrogen oxide
Steam plant upgrades	Plants are able to operate at higher efficiency

**list is not exhaustive*

Source: Company, DBS Bank

Oversupply of electricity. A number of Sunpower's GI plants possess the ability to co-generate steam and electricity. While Sunpower enjoys a captive customer base for steam, a significant amount of electricity generated by the group is sold to the local electrical grid. Electricity tariffs are determined by the local government and differs from region to region. As a result, new supply or lower demand for electricity may result in an oversupply which in turn may lead to a decrease in electricity tariffs paid to Sunpower.

China's electricity production has largely rose in tandem with consumption (kWh b)



Source: CEIC, DBS Bank

Steep rise in coal prices. While we do not anticipate a large increase in coal prices due to controls put in place by the Chinese government, any unexpected rise in coal prices could hurt Sunpower's gross profit margins. This is especially so as steam price caps have been imposed by the government on Sunpower. Under the price caps, the group is only allowed to raise steam prices to a set limit. Therefore, a large increase in coal prices that would require Sunpower to raise steam prices above the caps would be a concern.

Missing of convertible bond performance targets. Under the convertible bond deals that Sunpower entered into, Sunpower was required to meet certain performance targets. Specifically, Sunpower is required to hit an adjusted PATMI target of RMB370m and RMB460m for FY20 and FY21 respectively. Failure to hit these targets would entitle the convertible bond owners to a lower conversion price that would be dilutive to other shareholders. Current conversion prices for the first (CB1) and second (CB2) convertible bonds stand at S$0.50 and S$0.60 respectively.

Illustration of target miss and potential dilutive effect of CB1

Achieved Adjusted PATMI (RMBm)	Achieved Adjusted PATMI as a % of Performance Target	Conversion Price	Adjusted Conversion Shares
460 and above	Target Met	0.500	313,368,000
300	65.2%	0.326	480,478,381
Below 154	33.5%	0.167	935,985,663

Source: Company, DBS Bank

Default risk. Around RMB900m of convertible bonds are due to mature on 3 Mar 2022. At this juncture, the convertible bond owners (DCP and CDH) have not indicated which option they intend to pursue. The redemption of such a large sum at a time when Sunpower has high debt (due to the group's continued heavy investment in GI until 2021) could cause Sunpower to default. We believe this is unlikely, as both DCP and CDH are likely to realise a lower return if a default is triggered.

SWOT Analysis

Strengths	Weakness
• M&S equipped with arsenal of proprietary technologies that are protected by patents • GI segment enjoys natural monopoly due to the barriers of entry in the form of high capital investment required, technological difficulties and local government hurdles • Large exposure to the textile industry underpins GI's defensive quality • Reputable and supportive PE partners	• High gearing as a result of investments in GI • Natural monopoly status results in heavier regulatory scrutiny • Concentration in textile industry may be a double-edged sword if industry downturn takes place • Performance targets laid out in convertible bond deal a key factor for aggressive expansion
Opportunities	**Threats**
• Global push in environment protection driving demand for centralised boilers • Steam and electricity plant capacity expansion to power revenue growth • Favourable regulatory environment underscores a robust outlook for GI segment • Growing petrochemical demand in region as income rises may boost M&S product orders	• Steep rise in coal prices may result in losses as steam prices are subject to price caps • Global fight against single-use plastics may dent demand for M&S products

Source: DBS Bank

Critical Factors

GI asset acquisitions or new greenfield developments. Sunpower's share price is partly driven by steam, electricity and heat production capacity which in turn is dependent on the number of plants it operates. For example, the announcements from 16 Jan 2017 to 18 Jan 2017 disclosing the award of a RMB338m project and the clinching of a 51% stake in another RMB1.6b project led to a c.34.8% surge in Sunpower's share price over 10 trading days.

Sunpower is expected to invest in more projects given its RMB2.5b GI investment target by 2021. We believe Sunpower is on the lookout for c.RMB900m worth of GI investments between 3Q19 and 2021.

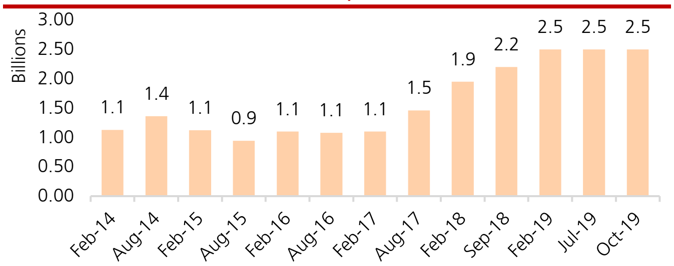
Sunpower's GI pipeline projects

Project	Status*	Type**	Remarks
Liutuan Project	TBC	Heat transfer oil	Under evaluation/Negotiating
Xinjiang Project	TBC	S/E	Under evaluation/Negotiating
Yingtan Project	TBC	S	Under evaluation/Negotiating
Shantou Project	UC	S/E	Phase 1 to enter trial production in 2H19, Phase 2 to begin construction in 2H19
Xintai Project	UC	S/E	Part of facility to start trial production in 1H20

*UC – Under construction, TBC – To be constructed
**S – steam, E – electricity
Source: Company, DBS Bank

M&S order book size. Sunpower has seen order book steadily climb since Feb 2017 to RMB2.5b, leading to factory utilisation of almost 100%. Going forward, the orders are expected to sustain factory activity and hence M&S top line for FY20F. More higher margin orders are also expected with the group becoming more selective on the new orders it takes, a bulk of which are repeat orders from its customers.

M&S order book has risen to Sunpower's max utilisation (RMB)



Source: Company, DBS Bank

Recent M&S orders

Customer	Announced Date	Remarks
Wanhua Chemical	16 Oct 19	RMB71.7m contract to supply energy-saving pipe products
Sinopec	30 Sep 19	RMB49m contract to provide flare gas recovery system
PSS Netherlands	26 Aug 19	Contract to supply heat exchangers for RMB65.5m
Fujian Gulei Petrochemical	25 Jul 19	Contract worth over RMB30m to provide heat exchanges
CHN Energy	29 Apr 19	RMB242m contract to design and construct high salt crystalliser

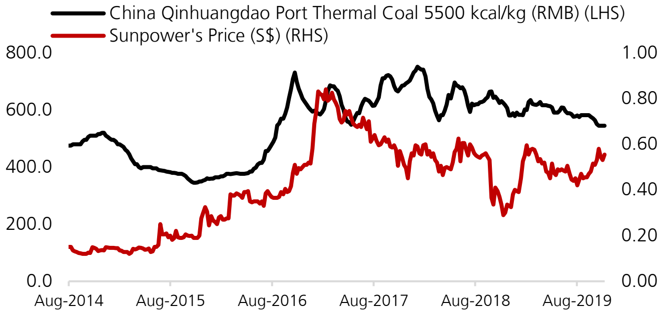
Source: Company, DBS Bank

Chinese government regulations. Changes to regulations surrounding environmental standards may affect Sunpower's share price due to the potential impact on demand for environment protection products and steam plants. For example, the Changshu government has mandated the shutdown of small coal-fired boilers by end-2019. This has led to an increase in demand for steam from a more environment-friendly centralised facility in Changshu.

Moving forward, we believe China's environmental regulations will continue to tighten. China's 13th Five Year Plan has targeted reductions in sulphur dioxide and nitrogen oxide emissions, common emissions of boilers, to 15.8Mt and 15.7Mt respectively, representing 15% declines for both from 2015.

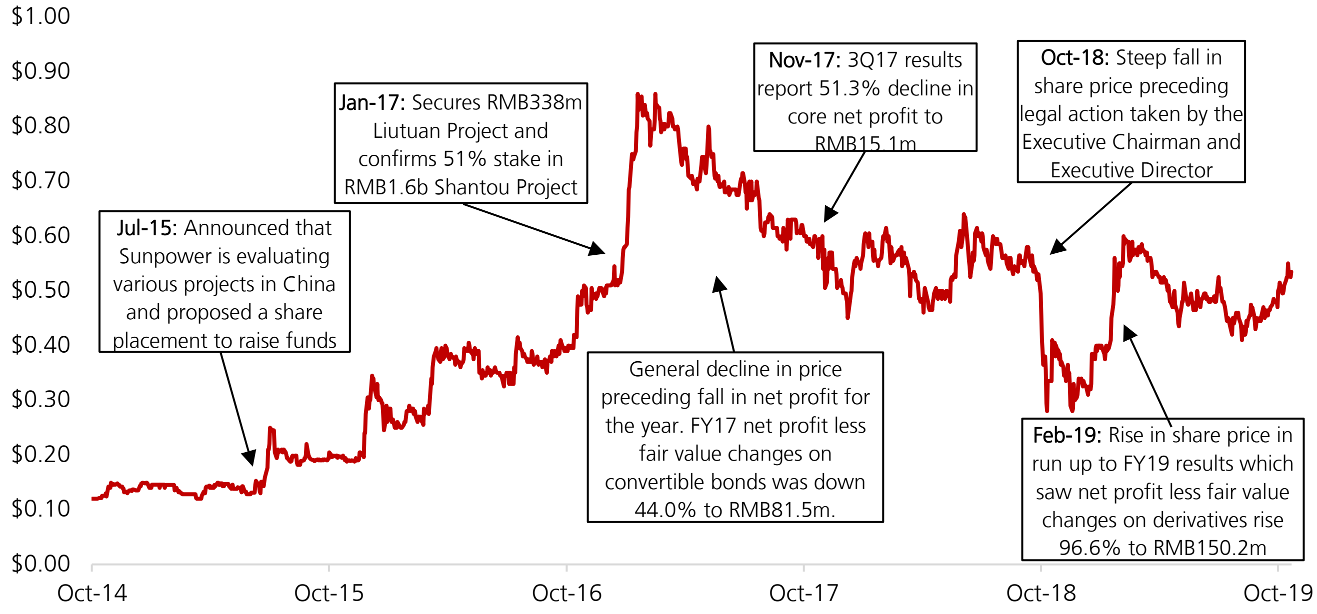
Outlook on China's thermal coal price. Coal is an important commodity used as a source of energy in the production of steam by GI plants. Similarly, a key innovation in the M&S segment has enabled the coal-reliant steam production process to be greener and less pollutive as compared to other sources such as natural gas. Interestingly, in the past five years, a correlation of r = 0.73 was found to exist between Sunpower's share price and the China thermal coal spot price.

Sunpower share price vs China thermal coal price (r = 0.73)



Source: Bloomberg Finance L.P., DBS Bank

Sunpower's historical share price in the past 5 years



Source: Bloomberg Finance L.P., DBS Bank

Oct-18: The steep fall in share price during this period may be attributed to rumours surrounding the Executive Chairman's and Executive Director's use of Sunpower's shares as collateral in a personal loan agreement with America2030 Capital. Currently, legal proceedings against America 2030 are still ongoing. We are of the opinion that the market has overcome the ramifications from this event especially because the shares used as collateral represent less than 2% of Sunpower's total outstanding shares. That said, a positive conclusion in the litigation leading to a return in shares could create upside for Sunpower.

Financials

Strong top line expansion to continue. In FY18, total revenue was up 66.0% y-o-y on the back of a strong performance in both M&S and GI. M&S revenue improved 39.3% y-o-y to RMB2.5b while GI revenue leapt 384.4% y-o-y to RMB736.8m as the new GI plants ramped up. Going forward, we expect the revenue growth momentum to be sustained driven by new plant acquisitions and construction in the GI segment. Revenue growth for M&S however may plateau as M&S factory utilisation is operating at peak capacity. That said, M&S revenue from service concession arrangements may improve if GI plant construction activity continues.

Hollow nature of service concession arrangements (SCA) revenue. While SCAs may arise from GI plants may operate under SCAs, revenue from SCAs is classified under M&S by Sunpower. Revenue from SCAs are "hollow" primarily because they are not directly associated with a subsequent inflow of cash. Under the accounting standards, revenue from SCA is recognised when the performance obligations in the arrangement are fulfilled. Typically, a major performance obligation is the completion of construction of the plant. This leads to a significant amount of revenue being recognised upfront when the plant is completed. As such, revenue from SCAs is "hollow" due to the disconnect between revenue and cash flows. Consider an extreme situation where a newly completed plant does not serve any customers. The plant will not receive any inflow of cash even though revenue has been recognised for plant completion.

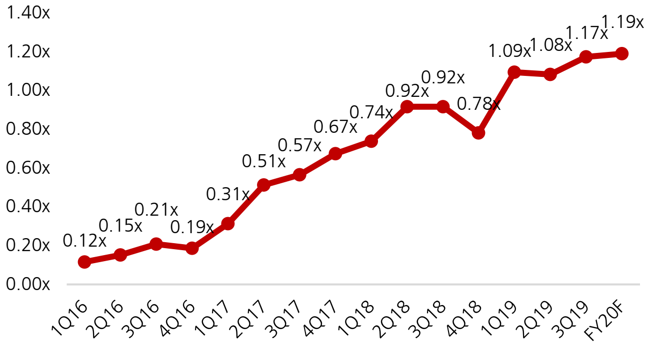
Illustration of SCA revenue

Event	Financial Statements	Amount ($)	Remarks
Completion of GI plant	CF: Contract costs	-100	$100 incurred to build plant
	P&L: Revenue from SCA	+125	Revenue of $125 recognised (based on construction cost plus 25% margin)
	P&L: Contract costs	-100	
	BS: Intangible asset	+125	Intangible asset recognised for performing service of construction
Customer purchases steam	CF: Receipt	+10	Revenue for providing steam
	P&L: Revenue	+10	

Source: DBS Bank

Gearing has risen with GI segment's expansion. Since the announcement of the first GI project in Dec 2015, Sunpower's net debt-equity has risen steadily as the group invested in more GI projects. The nature of the business model requires large upfront investments while cash inflows from the projects are spread over a long period of time. As a result, gearing has risen steadily, reaching a high of 1.17x in 3Q19.

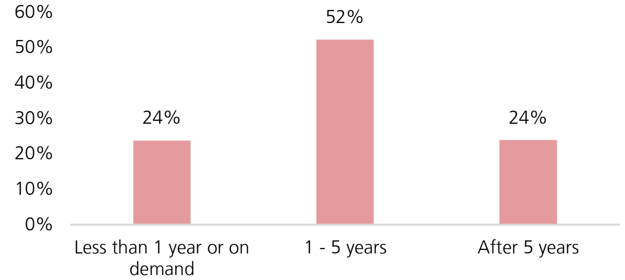
Gearing (net debt-equity*) on a steady uptrend



**includes nominal value of the convertible bonds*
Source: Company, DBS Bank

Gearing is expected to continue to trend higher as Sunpower expands its GI segment. Sunpower is expected to invest an additional c.RMB900m in equity on GI projects in a 40:60 equity-debt proportion. This translates to Sunpower taking on an estimated additional debt load of RMB1.35b.

Est. debt maturity profile (by proportion of total debt) (FY18)



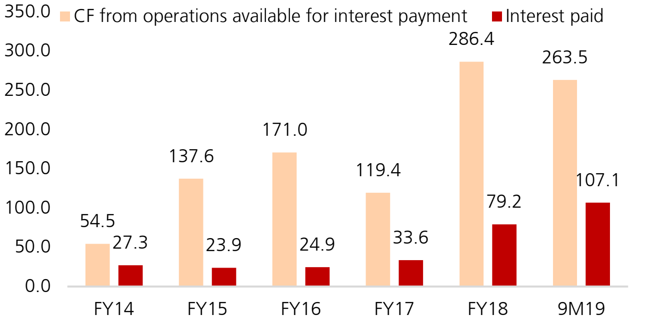
Source: Company, DBS Bank

Company	3Q19 Net D/E
CITIC Envirotech	1.01x
SIIC Environment	1.08x
China Everbright Water	0.74x
Tianjin Capital Environment	0.52x
Sunpower	1.17x

Source: Company, DBS Bank

Net cash flow from operations. Given Sunpower's high gearing and hollow nature of revenue (where a significant amount of revenue is recognised a few years ahead of cash flows), we would need to examine the company's net cash generated from operations. Net cash flow from operations available for interest payment appears to be on a rising trend, increasing to RMB286.4m in FY18.

Cash flow from operations available for interest payment have increased along with interest paid (RMBm)

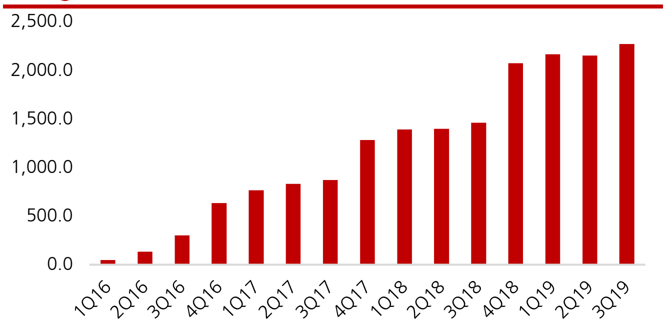


Source: Company, DBS Bank

Moving forward, we think cash flow from operations available for interest payment will continue to rise, supported by the highly cash flow generative GI business. Interest payments will rise in tandem with the additional GI investments that Sunpower is expected to make before decreasing from FY22F onwards as Sunpower looks towards capital recycling.

Intangible assets. Service concession arrangements (SCAs) that give Sunpower the right to charge users of its GI plants form a large portion of intangible assets. Such intangible assets are usually recognised as the plant is constructed on a cost of construction incurred plus margin basis. The intangible assets are then amortised over the life of the concession (usually 30 years). As Sunpower has taken on more plant projects over the years, the group's intangible assets have swelled, rising to RMB2.3b in 3Q19.

Intangible assets* have soared due to SCAs (RMBm)



**excludes goodwill*

Source: Company, DBS Bank

Going forward, intangible assets are expected to continue rising as more GI projects are clinched.

Segmental Breakdown

FY Dec	2016A	2017A	2018A	2019F	2020F	2021F
Revenues (RMBm)						
Manufacturing & services	1,626	1,813	2,526	2,862	3,009	2,763
Green investments	0.0	152	737	1,011	1,252	1,602
Total	1,626	1,965	3,263	3,873	4,261	4,365
Operating Profit (RMBm)						
Manufacturing & services	135	233	173	234	270	273
Green investments	0.0	(5.0)	46.8	196	259	299
Total	135	228	220	430	529	573
Operating Profit Margins (%)						
Manufacturing & services	8.3	12.9	6.8	8.2	9.0	9.9
Green investments	N/A	(3.3)	6.4	19.4	20.7	18.7
Total	8.3	11.6	6.7	11.1	12.4	13.1

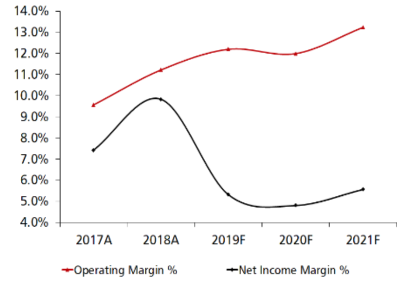
Largely constant revenue from M&S as factory utilisation has peaked with no factory expansion expected

Source: Company, DBS Bank

Interest expense adjustments. Due to the high effective interest rate of the convertible bonds (CB1: 20.8%, CB2: 19.2%), interest expenses reflected in the income statement are skewed higher even though the convertible bonds have a coupon rate of just 2.5%. We have made adjustments to interest expense to reflect a clearer picture of Sunpower's cost of borrowing. Specifically, the targets set in relation to the convertible bonds use adjusted PATMI as a basis where PATMI is adjusted for changes that include fair value gains and losses on bonds and accrued interest of bonds at "effective rate". As such, we have made adjustments and these are reflected under Exceptional Gains/Losses. Net profit before exceptionals is thus a proxy for adjusted PATMI.

Convertible bond performance targets. Based on our forecasts, Sunpower is not expected to meet its performance targets for the convertible bonds i.e. adjusted PATMI performance targets of RMB370m in FY20F and RMB460m in FY21F. That said, our forecasts have yet to factor in the potential pipeline of projects worth RMB900m in equity investments. Taking these projects into account, we estimate that Sunpower would hit and could potentially surpass the performance targets.

Margins Trend



Income Statement (RMBm)

FY Dec	2016A	2017A	2018A	2019F	2020F	2021F
Revenue	1,626	1,965	3,263	3,873	4,261	4,365
Cost of Goods Sold	(1,218)	(1,558)	(2,569)	(2,905)	(3,175)	(3,230)
Gross Profit	**408**	**408**	**694**	**968**	**1,087**	**1,135**
Other Opng (Exp)/Inc	(207)	(220)	(328)	(496)	(576)	(557)
Operating Profit	**201**	**188**	**366**	**472**	**511**	**578**
Other Non Opg (Exp)/Inc	0.0	0.0	0.0	0.0	0.0	0.0
Associates & JV Inc	0.0	0.0	(1.0)	1.30	2.00	2.00
Net Interest (Exp)/Inc	(23.7)	(21.3)	(55.7)	(98.4)	(116)	(99.9)
Exceptional Gain/(Loss)	0.0	11.1	85.3	(89.5)	(108)	(130)
Pre-tax Profit	**178**	**178**	**395**	**286**	**290**	**350**
Tax	(32.0)	(27.0)	(62.2)	(71.5)	(72.4)	(87.4)
Minority Interest	(3.5)	(5.1)	(12.0)	(8.3)	(12.3)	(19.4)
Preference Dividend	0.0	0.0	0.0	0.0	0.0	0.0
Net Profit	**142**	**146**	**321**	**206**	**205**	**243**
Net Profit before Except.	142	135	235	296	313	373
EBITDA	234	238	472	634	686	760
Growth						
Revenue Gth (%)	13.3	20.9	66.0	18.7	10.0	2.4
EBITDA Gth (%)	57.3	1.9	98.2	34.4	8.1	10.8
Opg Profit Gth (%)	67.3	(6.6)	94.7	29.1	8.2	13.0
Net Profit Gth (Pre-ex)	74.5	(5.3)	74.7	25.7	5.8	19.2
Margins & Ratio						
Gross Margins (%)	25.1	20.7	21.3	25.0	25.5	26.0
Opg Profit Margin (%)	12.4	9.6	11.2	12.2	12.0	13.2
Net Profit Margin (%)	8.7	7.4	9.8	5.3	4.8	5.6
ROAE (%)	13.6	12.2	22.5	12.2	10.9	11.5
ROA (%)	5.4	3.7	5.5	3.0	2.7	3.0
ROCE (%)	7.5	4.6	5.0	4.4	3.8	5.0
Div Payout Ratio (%)	3.1	3.0	2.3	3.5	3.5	3.0
Net Interest Cover (x)	8.5	8.8	6.6	4.8	4.4	5.8

Source: Company, DBS Bank

Adjustment for interest expense on convertible bonds to reflect effects on I/S without convertible bonds. Effective interest rate of 19 – 21% differs from the actual coupon of 2.5%

Includes fair value changes and adjustments for interest expense on convertible bonds

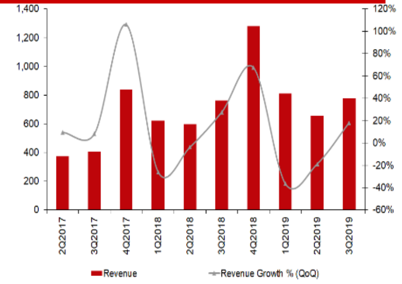
Quarterly / Interim Income Statement (RMBm)

FY Dec	2Q2018	3Q2018	4Q2018	1Q2019	2Q2019	3Q2019
Revenue	598	764	1,280	812	659	778
Cost of Goods Sold	(486)	(601)	(993)	(640)	(487)	(580)
Gross Profit	**113**	**163**	**286**	**171**	**172**	**197**
Other Oper. (Exp)/Inc	(87.4)	(82.8)	(88.1)	(63.6)	(88.7)	(88.5)
Operating Profit	**25.1**	**79.8**	**198**	**108**	**83.1**	**109**
Other Non Opg (Exp)/Inc	0.0	0.0	0.0	0.0	0.0	0.0
Associates & JV Inc	(0.1)	(0.4)	(0.2)	0.28	0.35	0.31
Net Interest (Exp)/Inc	(38.6)	(36.9)	44.5	(42.1)	(56.5)	(57.1)
Exceptional Gain/(Loss)	(64.7)	12.5	86.4	(86.4)	(16.4)	78.8
Pre-tax Profit	**(78.4)**	**55.0**	**329**	**(20.4)**	**10.5**	**131**
Tax	(4.6)	(16.8)	(34.8)	(18.3)	(13.1)	(22.0)
Minority Interest	2.01	(5.9)	(9.1)	(2.8)	(2.6)	1.57
Net Profit	**(81.0)**	**32.3**	**285**	**(41.6)**	**(5.2)**	**110**
Net profit bef Except.	(16.3)	19.8	198	44.8	11.2	31.5
EBITDA	51.7	105	231	142	125	144
Growth						
Revenue Gth (%)	(3.8)	27.7	67.5	(36.6)	(18.8)	18.0
EBITDA Gth (%)	(38.6)	103.6	119.2	(38.5)	(12.2)	15.7
Opg Profit Gth (%)	(60.3)	218.3	148.4	(45.6)	(23.0)	30.9
Net Profit Gth (Pre-ex)	(149.0)	(221.5)	902.8	(77.4)	(75.1)	181.9
Margins						
Gross Margins (%)	18.8	21.3	22.4	21.1	26.1	25.4
Opg Profit Margins (%)	4.2	10.4	15.5	13.3	12.6	14.0
Net Profit Margins (%)	(13.5)	4.2	22.3	(5.1)	(0.8)	14.2

Fair value changes on convertible bonds

Source: Company, DBS Bank

Revenue Trend

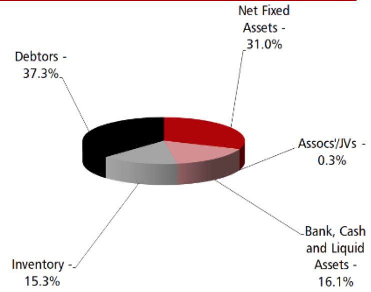


Balance Sheet (RMBm)

FY Dec	2016A	2017A	2018A	2019F	2020F	2021F
Net Fixed Assets	421	668	1,155	1,208	1,264	1,317
Invts in Associates & JVs	0.0	10.3	9.26	10.6	12.6	14.6
Other LT Assets	663	1,356	2,477	2,759	2,933	2,858
Cash & ST Invts	281	903	783	727	867	1,140
Inventory	210	343	500	597	652	664
Debtors	1,018	1,264	1,192	1,457	1,604	1,642
Other Current Assets	191	457	508	508	508	508
Total Assets	2,783	5,000	6,623	7,267	7,841	8,144
ST Debt	401	517	493	750	750	750
Creditor	847	1,376	1,717	1,749	1,911	1,944
Other Current Liab	219	413	866	571	572	587
LT Debt	157	568	1,569	2,012	2,212	2,212
Other LT Liabilities	16.1	724	148	148	148	148
Shareholder's Equity	1,118	1,262	1,590	1,789	1,986	2,222
Minority Interests	25.7	141	240	249	261	280
Total Cap. & Liab.	2,783	5,000	6,623	7,267	7,841	8,144
Non-Cash Wkg. Capital	353	275	(383)	242	281	283
Net Cash/(Debt)	(277)	(182)	(1,279)	(2,035)	(2,095)	(1,822)
Debtors Turn (avg days)	255.9	211.9	137.4	124.8	131.1	135.7
Creditors Turn (avg days)	264.5	269.1	229.3	230.5	222.5	230.7
Inventory Turn (avg days)	68.4	66.9	62.5	72.9	75.9	78.8
Asset Turnover (x)	0.6	0.5	0.6	0.6	0.6	0.5
Current Ratio (x)	1.2	1.3	1.0	1.1	1.1	1.2
Quick Ratio (x)	0.9	0.9	0.6	0.7	0.8	0.8
Net Debt/Equity (X)	0.2	0.1	0.7	1.0	0.9	0.7
Net Debt/Equity ex MI (X)	0.2	0.1	0.8	1.1	1.1	0.8
Capex to Debt (%)	62.9	53.0	16.2	18.0	13.6	5.3

Source: Company, DBS Bank

Asset Breakdown



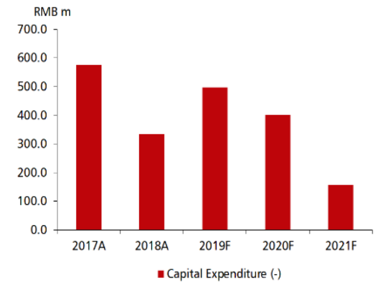
Increase is largely attributed to service concession arrangements

Cash Flow Statement (RMBm)

FY Dec	2016A	2017A	2018A	2019F	2020F	2021F
Pre-Tax Profit	178	178	395	286	290	350
Dep. & Amort.	32.2	50.1	107	161	173	180
Tax Paid	(12.3)	(21.7)	(45.7)	(58.8)	(71.5)	(72.4)
Assoc. & JV Inc/(loss)	0.0	0.0	1.03	(1.3)	(2.0)	(2.0)
Chg in Wkg.Cap.	(72.3)	(79.6)	(175)	(639)	(39.1)	(17.0)
Other Operating CF	20.8	(40.7)	(74.4)	0.0	0.0	0.0
Net Operating CF	**146**	**85.9**	**207**	**(252)**	**350**	**438**
Capital Exp.(net)	(351)	(574)	(333)	(497)	(402)	(158)
Other Invts.(net)	0.0	0.0	0.0	0.0	0.0	0.0
Invts in Assoc. & JV	0.0	(10.3)	0.0	0.0	0.0	0.0
Div from Assoc & JV	0.0	0.0	0.0	0.0	0.0	0.0
Other Investing CF	(8.5)	(108)	(433)	0.0	0.0	0.0
Net Investing CF	**(360)**	**(693)**	**(767)**	**(497)**	**(402)**	**(158)**
Div Paid	(4.3)	(7.6)	(7.8)	(7.3)	(7.3)	(7.3)
Chg in Gross Debt	104	1,192	294	700	200	0.0
Capital Issues	0.0	0.0	0.0	0.0	0.0	0.0
Other Financing CF	(2.7)	43.4	56.0	0.0	0.0	0.0
Net Financing CF	**97.1**	**1,228**	**342**	**693**	**193**	**(7.3)**
Currency Adjustments	0.15	(0.1)	0.12	0.0	0.0	0.0
Chg in Cash	(116)	621	(217)	(56.0)	140	273
Opg CFPS (S cts)	5.73	4.35	9.68	9.74	9.81	11.5
Free CFPS (S cts)	(5.4)	(12.8)	(3.2)	(18.9)	(1.3)	7.07

Source: Company, DBS Bank

Capital Expenditure



Steep drop in capex as GI pipeline projects are not incorporated into our estimates

Payment of consideration payable for acquisition of subsidiaries

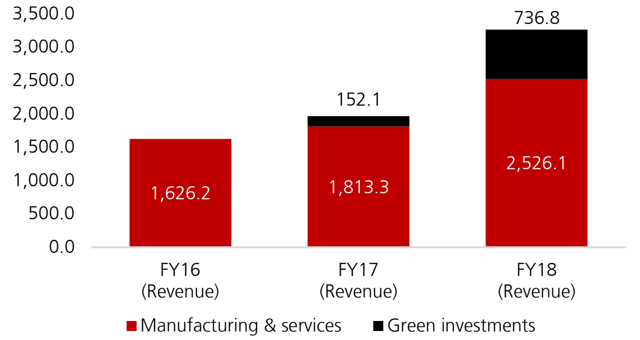
Construction costs for Shantou and Xintai plants

Company Background

Sunpower Group is a China-focused steam, electricity and heat solutions provider that manufactures energy saving and environment protection products. The group was listed on the Singapore Exchange in 2005 and has two main business segments, Green Investments ("GI") and Manufacturing & Services ("M&S").

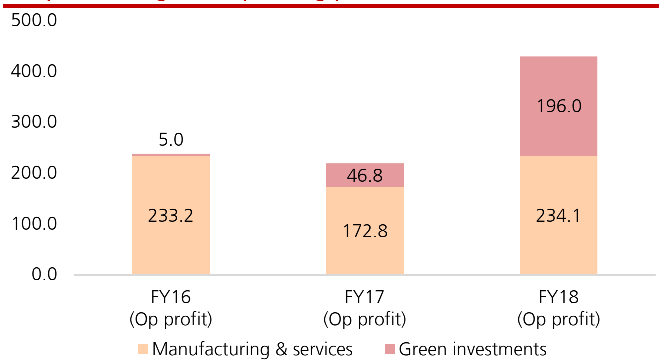
Share of revenue contributed by GI segment has been increasing steadily. The GI segment constituted 23% and 46% of Sunpower's revenue and operating profit in FY18 respectively. Supported by the M&S segment, the GI segment will be the earnings driver going forward. The group intends to invest RMB2.5b in equity on GI assets by 2021 which can be realised either through accretive M&As or project developments.

Sunpower's segment revenue (RMBm)



Source: Company, DBS Bank

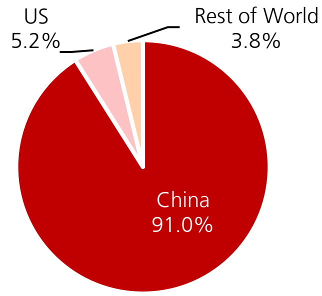
Sunpower's segment operating profit (RMBm)



Source: Company, DBS Bank

Additionally, Sunpower's business is geographically concentrated in China with 91.0% of revenue derived from China. Revenue generated from other geographies remain small with the US being the most significant at 5.2% of total revenue.

FY18 geographical revenue split



Source: Company, DBS Bank

The GI segment deals in investment, development and operation of centralised steam, heat and electricity generation plants. The GI segment first generated steam and electricity in 2017. The focus of the segment is the production of steam, with electricity as a by-product of steam production. Steam is produced in the plants using coal as fuel and then distributed to customers via pipelines. Industries that require steam in their business operations include the food, garment and paper production industries. For example, the food industry may utilise steam in their sterilization process. Sunpower is given the right to operate these plants under concession agreements for a typical period of 30 years. At the end of the concession period, ownership and operation of the plants may be transferred to the state.

Sunpower's GI plants

**Xintai currently has an existing plant with a new plant to be constructed*
Source: Company, DBS Bank

The M&S segment leverages on its patents to manufacture energy saving and environment protection products. With a library of 160 patents as at 3Q19, the M&S segment manufactures products such as high efficiency heat exchangers & pressure vessels, pipeline energy saving products and flare & flare gas recovery systems. The segment has served over 1,500 companies such as Sinopec, Shell and Bayer and sees repeat orders from 70% of its customers.

M&S main products list

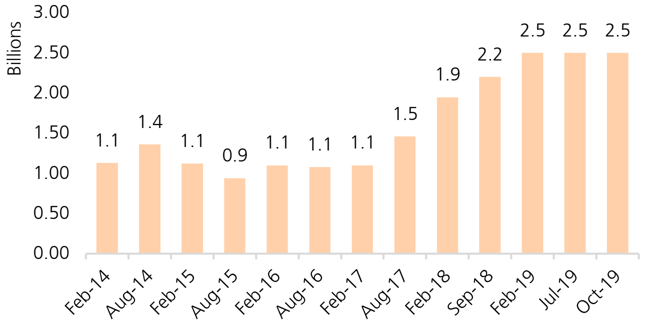
Product	Which industry uses this*
High efficiency heat exchangers & pressure vessels	Petrochemical, chemical, paper, food & beverage
Pipeline energy saving products	Petrochemical, chemical, clean energy, LNG, pharmaceutical, mining
Heat pipes and heat pipe exchangers	Petrochemical, chemical, steel
Flare & flare gas recovery systems	Petrochemical, steel
Desulfurization & denitrification system	Power generation, wastewater treatment
High salinity wastewater system (Zero liquid discharge system)	Food, leather
Petrochemical engineering	Petrochemical
Energy saving system	Petrochemical, power generation, steel, glass

**list is not exhaustive*

Source: Company, DBS Bank

M&S order book has soared since 2014, with factory utilisation at nearly 100%. The order book has grown from RMB1.1b in Feb-14 to RMB2.5b in Oct-19, representing c.15.0% CAGR. As a result, Sunpower is only selectively taking in orders for M&S products as factory utilisation is almost full.

M&S order book has risen c.15.8% CAGR since 2014 (RMB)



Source: Company, DBS Bank

Sunpower's GI plants list

Name	Status*	Interest (%)	Active Steam Capacity (tons/hour)	Active Electricity Capacity (MW)	Remarks**
Changrun Project	Operational	100	445	25	Centralised S/E generating facility
Changshu Thermal Power Plant	Operational	90	165	7	Centralised S/E generating facility
Jining Project	Operational	49	n/a	n/a	Involved in the selling and distribution of steam through pipelines
Lianshui Project	Operational	95	40	0	Phase 1 involves the construction of two boilers only
Quanjiao Project	Operational	100	40	0	Phase 1 involves the construction of one boiler only
Xinyuan Thermal Power Plant	Operational	85	298	14	Centralised S/E generating facility
Yongxing Plant	Operational	100	350	36	Centralised S/E generating facility
Shantou Project (Phase 1)	UC	51	300	40	Centralised S/E generating facility
Shantou Project (Phase 2)	UC	51	520	60	Centralised S/E generating facility
Xintai Project (New)	UC	79.2	260	53	Centralised S/E generating facility
Liutuan Project	TBC	100	n/a	n/a	Heat transfer oil boiling facility distributing heat transfer oil through pipelines
Xinjiang Project	TBC	100	330	27	Centralised S/E generating facility
Yingtan Project	TBC	100	35	0	Phase 1 involves the construction of one boiler only

**UC – Under construction, TBC – To be constructed*
***S – Steam, E – Electricity*
Source: Company, DBS Bank

Management

Winner of multiple awards. Sunpower's management has received multiple awards for their excellence. Recent awards include the Deloitte Best Managed Companies award in China and the Ernst & Young Entrepreneur of the Year (Technology) award. Other awards include the China Petrochemical Group Science and Technology Progress Award from China Petrochemical Corporation and various other awards from customers such as Sinopec.

Key Management Team

Name & Position	Experience
Mr Guo Hong Xin *Executive Chairman and Chief Executive Officer*	Mr Guo founded Sunpower in 1997. As Executive Chairman and Chief Executive Officer, Mr Guo is in charge of the overall management of Sunpower. He is also responsible for the strategic planning and development of the group. Mr Guo is equipped with a wealth of experience having been Director and Deputy General Manager at Shengnuo Group. He was also heavily involved in heat pipe technologies where he served as Lab Director at the Heat Pipe Research Centre of Nanjing Chemical Institute and e Vice Dean of Heat Pipe Technology Development Institute of Nanjing Tech University. Mr Guo graduated with a Ph.D in geotechnical engineering from the Cold and Arid Regions Environmental and Engineering Research Institute of the Chinese Academy of Sciences. He also holds an EMBA from Tsinghua University.
Mr Ma Ming *Executive Director*	Appointed as an Executive Director of Sunpower in 2004, Mr Ma co-founded Sunpower. Mr Ma oversees the financial affairs and external investment of the group. Mr Ma started his career at the Nanking Chemical Industrial Company where he was an engineer. He also worked in Hainan Lida Industrial as a manager before he founded Sunpower. In Sunpower, Mr Ma has served as the Deputy General Manager of Sunpower Petrochemical and General Manager of various other units in the group. Mr Ma obtained his Master's degree in Engineering Management from the University of Shanghai for Science and Technology.
Mr Chen Kai *Chief Investment Officer*	Mr Chen first joined Sunpower in 2007. He manages matters related to investment management and investor relations but has also taken on other positions in the group including Board Secretary and Investment Department Manager and General Manager of Sunpower Clean Energy Investment (Jiangsu). Mr Chen's experience spans both the petrochemical and finance industry. He has done stints in Sinopec Yangzi Petrochemical and other investment companies where he was involved in risk investment, IPO and M&A. Mr Chen completed his degree from the Nanjing University of Science and Technology. He also holds an MBA from Nanjing University.

Source: Company, DBS Bank

Report contributed by: YONG Woon Bing

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BUY (>15% total return over the next 12 months for small caps, >10% for large caps)
HOLD (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)
FULLY VALUED (negative total return, i.e., > -10% over the next 12 months)
SELL (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

**Share price appreciation + dividends*

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