SMA SOLAR TECHNOLOGY AG

Analyst / Investor Presentation: Roadshow Frankfurt / Zurich

Ulrich Hadding (CFO)
March 28 - 29, 2019
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1. Review 2018
Sales and Earnings Down Significantly Year on Year; Managing Board Expects Growth in 2019

Financial Highlights 2018

Top Line

• Sales 2018 with €761m below prior year in every segment due to very high price pressure, component shortages in H1/2018, project postponements and limited battery availability.

Profitability, Bankability

• EBITDA of €-69m negatively impacted by extraordinary effects of net €86m.
• In addition, 2018 EBIT is affected by the impairment of R&D intangible assets (-€30m).
• Solid balance sheet structure with >40% equity ratio, >€300m net cash and €100m credit facility

Outlook 2019

• Cost-saving measures on track
• Managing Board expects sales of €800m to €880m in 2019 and EBITDA of €20-50m.

Strategic Highlights

New Products

Awards

Sunny Central Storage
Intersolar 2018
ennexOS
Intersolar 2018
Sales 2018 Remained Below Expectations; EBITDA Impacted by Extraordinary Effects

### Key Financials (in € million)

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>MW sold</td>
<td>8,538</td>
<td>8,449</td>
<td>-1%</td>
</tr>
<tr>
<td>Sales</td>
<td>891</td>
<td>761</td>
<td>-15%</td>
</tr>
<tr>
<td>Residential</td>
<td>233</td>
<td>182</td>
<td>-22%</td>
</tr>
<tr>
<td>Commercial</td>
<td>272</td>
<td>252</td>
<td>-7%</td>
</tr>
<tr>
<td>Utility</td>
<td>289</td>
<td>266</td>
<td>-8%</td>
</tr>
<tr>
<td>Storage</td>
<td>97</td>
<td>61</td>
<td>-37%</td>
</tr>
<tr>
<td>Digital Energy</td>
<td>0</td>
<td>0</td>
<td>n.m.</td>
</tr>
<tr>
<td>Gross margin</td>
<td>22%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>EBITDA</td>
<td>97</td>
<td>-69</td>
<td>n.m.</td>
</tr>
<tr>
<td>Depreciation</td>
<td>53</td>
<td>83</td>
<td>55%</td>
</tr>
<tr>
<td>EBIT</td>
<td>44</td>
<td>-152</td>
<td>n.m.</td>
</tr>
<tr>
<td>Net income</td>
<td>30</td>
<td>-176</td>
<td>n.m.</td>
</tr>
<tr>
<td>Free Cash Flow (Adj.)</td>
<td>85</td>
<td>-94</td>
<td>n.m.</td>
</tr>
<tr>
<td>Net CapEx (incl. R&amp;D)</td>
<td>32</td>
<td>40</td>
<td>24%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net cash</td>
<td>450</td>
<td>306</td>
<td>-32%</td>
</tr>
<tr>
<td>Total assets</td>
<td>1,216</td>
<td>989</td>
<td>-19%</td>
</tr>
<tr>
<td>NWC ratio (in %)1</td>
<td>19%2</td>
<td>23%</td>
<td></td>
</tr>
</tbody>
</table>

### Financial Results 2018

1. Net Working Capital ratio: inventory + trade receivables - trade payables (advance payments included); as of last twelve months sales
2. Adjusted comparative figure
2. Market
Global PV Installations Expected to Grow in all Regions, Except China

**Core Business: PV Installations**

**REGIONS**

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>44</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>APAC</td>
<td>24</td>
<td>28</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>AMER</td>
<td>17</td>
<td>20</td>
<td>28</td>
<td>31</td>
</tr>
<tr>
<td>EMEA</td>
<td>17</td>
<td>20</td>
<td>30</td>
<td>40</td>
</tr>
</tbody>
</table>

**SEGMENTS**

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility</td>
<td>71</td>
<td>71</td>
<td>76</td>
<td>79</td>
</tr>
<tr>
<td>Commercial</td>
<td>20</td>
<td>24</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>Residential</td>
<td>11</td>
<td>13</td>
<td>14</td>
<td>15</td>
</tr>
</tbody>
</table>

**New installations**

From 2018 on PV installations are expected to show a continuous average growth of 8% p.a.

**EMEA**

EMEA is most promising region with >20% annual growth. MEA is expected to add huge potential from 2020.

**China**

Chinese installations decreased by 16% in 2018. 5-Year-Plan ends in 2020, forecast thereafter subject to uncertainty.

**Utility**

Utility remains largest segment. Most promising markets are USA, Australia, Japan. India and China are largest low-cost markets.

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1. SMA Market Model Q1 2019, new PV installations, Res ≤10kW plants, Com 10kW-1MW plants, Uti >1MW plants
2. Middle East and Africa region
Price Pressure will Largely Erode Growth in PV Installations

**Revenue potential**

After drop from 2017 to 2018 by ~10%, flat revenue expected until 2021. Price pressure will largely erode volume growth.

**EMEA**

Emerging PV markets in MEA² contribute strongly to growth in EMEA, which is expected to reach 7% p.a.

**AMERICAS**

Largest country in Americas region remains the USA. Latin America gains importance with revenue growth of 14% p.a.

**Segments**

Revenue potential for each segment expected to remain rather stable, no significant shift among segments expected.

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1. SMA Market Model Q1 2019, incl. new and repowering installations, product mix in segments considered, Res ≤10kW plants, Com 10kW-1MW plants, Uti >1MW plants

2. Middle East and Africa region
Storage and Digital Energy Solutions Drive Global Market Growth

Global Market Outlook by Sector

- Power generation costs decrease, integrated energy and digitalization will lead to a higher share of renewable energy and its growth.
- The traditional PV inverter market revenue potential is expected to be stable. Digital solutions and battery storage are attractive additional value pools.
- PV inverters will serve as the backbone for smart grid solutions connecting the components and collecting data.
- Digital energy solutions gain importance for both homes and businesses, e.g. energy services for residential houses, food and non-food retail.
- O&M services remain important with continuously declining equipment prices and are key for sustainable PV investments. Service packages aim utility plants in particular and vary from full to partial.

1. SMA Market Model Q1 2019
2. SMA estimate of addressable market for home and business digital energy solutions
3. Positioning
SMA has a Complete Portfolio to Serve all PV Segments

SMA RESIDENTIAL
- 25% of Group net sales

SMA COMMERCIAL
- 30% of Group net sales

SMA UTILITY
- 35% of Group net sales

SMA STORAGE
- 10% of Group net sales

Financial Results 2018

w/o the new segment Digital Energy
SMA’s Portfolio Covers Every Stage of Energy Integration

1. Energy Monitoring
2. Solar Power Generation
3. Storage
4. Integrated Energy
5. Energy Market Integration

- SMA’s Internet Portal
- SMA’s PV Inverters
- SMA’s Battery Inverters
- SMA’s IoT Platform
- SMA’s Direct Marketing Solution
SMA will Introduce New Cost Improved Products in 2019

- **Sunny Tripower**  
  - 8–10 kW

- **SMA Energy System**  
  - Power class: 5 kW / 250 kW  
  - Pilot markets: Italy / Germany

- **Sunny Boy**  
  - 3–6 kW

- **DC-DC Converter**

- **Sunny Highpower PEAK3**  
  - 150 kW, 1,500 V

- **SMA + BYD Battery Solution**  
  - 5–60 kW  
  - Securing battery availability

- **Installer App**

- **Sunny Central UP**  
  - 4.6 MW

- **Medium Voltage Power Station**  
  - 4.6 MW

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Financial Results 2018
SMA can do more than Selling Components – We Possess the Necessary Prerequisites for Offering Future-Proof Systems


Complete SMA PV & Storage Systems

SMA’s System Offering for Residential and Commercial

**HARDWARE – Intelligent PV and storage technology**
Smart products such as intelligent inverters, powerful storage technologies and innovative data managers.

**SOFTWARE – Energy management software**
Cross-sectoral energy platform with applications and tools to manage and make energy consumption transparent.

**SERVICES – (Digital) sales processes and services**
Tailor-made sales processes along the customer journey to ensure ease of use and a maximum positive customer experience.

Reduced energy costs

**SMA ENERGY SYSTEM**

IoT Platform enNexOS

System Technology

Digital Tools and Services

Up to 75% less energy costs
4. Financials & Guidance
Sales 2018 Decreased in All Regions and Segments; Americas was Most Affected

Sales by Segment$^1$ (in € million)

<table>
<thead>
<tr>
<th>Segment</th>
<th>2017 Products</th>
<th>2017 Services</th>
<th>2018 Products</th>
<th>2018 Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>165</td>
<td>17</td>
<td>182</td>
<td>19</td>
</tr>
<tr>
<td>Commercial</td>
<td>245</td>
<td>7</td>
<td>252</td>
<td>4</td>
</tr>
<tr>
<td>Utility</td>
<td>232</td>
<td>35</td>
<td>266</td>
<td>44</td>
</tr>
<tr>
<td>Storage</td>
<td>60</td>
<td>1</td>
<td>61</td>
<td>97</td>
</tr>
</tbody>
</table>

1. Services include commissioning, extended warranties, service and maintenance contracts, operational management, remote system monitoring and digital energy services.
EBITDA Impacted by Negative Extraordinary Effects of €86 Million

EBITDA (in € million)
- Margin: 11% in 2017, -9% in 2018
- One-Offs: €13 million in 2017, €-86 million in 2018
- Depreciation/Amortization: €53 million in 2017, €83 million in 2018

EBIT by Segment (in € million)
- Residential: -€17 million in 2018
- Commercial: -€12 million in 2018
- Utility: -€64 million in 2018
- Storage: -€6 million in 2018

1. 2018: Costs related to restructuring of ca. €-34m, working capital provisions of ca. €-42m, other one-off effects of €-10m; 2017: Release of deferred sales for long-term service and maintenance contracts, w/o the book gain from the sale of the Railway Technology business division
2. Thereof €30m for extraordinary R&D impairments
3. w/o Digital Energy
The Net Working Capital Ratio 2018 was slightly above the Range of 19% to 23% Targeted by Management

Net Working Capital (in €million)

<table>
<thead>
<tr>
<th>NWC ratio¹</th>
<th>19%</th>
<th>23%</th>
</tr>
</thead>
<tbody>
<tr>
<td>168</td>
<td>177</td>
<td></td>
</tr>
<tr>
<td>160</td>
<td>108</td>
<td></td>
</tr>
<tr>
<td>88</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>-130</td>
<td>-111</td>
<td></td>
</tr>
</tbody>
</table>

Dec. 31, 2017 (adjusted)²

<table>
<thead>
<tr>
<th>64</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>88</td>
<td>14</td>
</tr>
</tbody>
</table>

Dec. 31, 2018

<table>
<thead>
<tr>
<th>14</th>
<th>105</th>
</tr>
</thead>
<tbody>
<tr>
<td>-27</td>
<td></td>
</tr>
</tbody>
</table>

Group Balance Sheet (in €million)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-current assets</td>
<td>358</td>
<td>283</td>
<td>-21%</td>
</tr>
<tr>
<td>Working capital</td>
<td>325</td>
<td>302</td>
<td>-7%</td>
</tr>
<tr>
<td>Other capital assets</td>
<td>63</td>
<td>80</td>
<td>28%</td>
</tr>
<tr>
<td>Total cash</td>
<td>470</td>
<td>324</td>
<td>-31%</td>
</tr>
<tr>
<td>Shareholder’s equity</td>
<td>612</td>
<td>424</td>
<td>-31%</td>
</tr>
<tr>
<td>Provisions</td>
<td>156</td>
<td>157</td>
<td>1%</td>
</tr>
<tr>
<td>Trade payables</td>
<td>130</td>
<td>111</td>
<td>-15%</td>
</tr>
<tr>
<td>Financial liabilities</td>
<td>20</td>
<td>18</td>
<td>-12%</td>
</tr>
<tr>
<td>Other liabilities³</td>
<td>298</td>
<td>279</td>
<td>-6%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,216</td>
<td>989</td>
<td>-19%</td>
</tr>
</tbody>
</table>

1. Net Working Capital ratio: inventory + trade receivables - trade payables (advanced payments included); as of last twelve months sales
2. NWC ratio as of 2018 reporting includes advanced payments; the year end figure 2017 has been adjusted accordingly
3. Not interest-bearing
4. w/o not interest-bearing derivatives: €2.0m (2017: €0.4m)
The Managing Board and Supervisory Board will Recommend no Dividend Payment to the General Meeting

<table>
<thead>
<tr>
<th>Cash Flow (in € million)</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Income</td>
<td>30</td>
<td>-176</td>
</tr>
<tr>
<td>Gross Cash Flow</td>
<td>84</td>
<td>-39</td>
</tr>
<tr>
<td>Cash Flow from Operating Activities</td>
<td>117</td>
<td>-54</td>
</tr>
<tr>
<td>Net Capex</td>
<td>-32</td>
<td>-40</td>
</tr>
<tr>
<td><strong>Free Cash Flow (Adj.)</strong></td>
<td>85</td>
<td>-94</td>
</tr>
<tr>
<td>Net Investments from Securities and Other Financial Assets</td>
<td>-66</td>
<td>47</td>
</tr>
<tr>
<td>Acquisitions/ Divestitures</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td><strong>Free Cash Flow (IFRS)</strong></td>
<td>36</td>
<td>-47</td>
</tr>
</tbody>
</table>
With our Cost Saving Program we Reduce our Costs by c. €40 m p.a. until 2020 while Maintaining SMA’s Ability to Seize Opportunities

1. Consolidation

- Production Sites
  - Sale of production site, procurement and design center in China to lower fixed costs and complexity

- Global Workforce
  - Reduction of around 425 FTE\(^1\), thereof c. 300 in China

2. Focus

- Focus on Core Competencies
  - Outsourcing and automation of activities

- Optimization of Product Offering
  - Reduction of product platforms
  - Streamlining of product portfolio

3. Optimization

- Customer Centricity & Market Focus
  - Closer collaboration between sales, service and business units

- Driving Future Topics
  - Digitalization, repowering, storage sales, service sales and O&M

- Reducing Complexity
  - Automation of administrative processes and overhead reduction

\(^1\)Full Time Equivalent w/o temporary workers and learners
In Q1/19, SMA’s Management Estimates Sales of €160m to €170m and EBITDA of €5m to €0m

- Product order backlog increased by nearly 40% since end of 2018.
- Increase in Q1/2019 order backlog for products across all segments, especially Commercial.
- EMEA markets remain most promising.
- About 50% of guided sales figure 2019 is covered by Q1/19 revenues and product order backlog.
For 2019 Management Expects Sales Growth

**Guidance 2019 (in € million)**

- Sales: 761 - 800-880
- EBITDA: -69 - 20-50

**Management Comments**

- SMA strives to increase market share, especially in the U.S.
- Management expects growth in all segments, especially in Utility and our storage business.
- In 2019, digital solution business will still have only limited sales contribution.
- Price pressure remains high in all segments.
- Most of the cost-saving measures will be effective in 2019.

<table>
<thead>
<tr>
<th>Financial Statement</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Cash</td>
<td>&gt; €300m</td>
</tr>
<tr>
<td>NWC-Ratio</td>
<td>19-24%</td>
</tr>
<tr>
<td>CapEx (incl. R&amp;D)²</td>
<td>c. €60m</td>
</tr>
<tr>
<td>Depreciation / Amortization</td>
<td>c. €50m</td>
</tr>
</tbody>
</table>

1. after extraordinary effects, e.g. from restructuring
2. incl. c. €10m for R&D and a one-off effect from IFRS 16 – Leases of c. €25m
SMA Continues to be a Leading Player in the PV Industry

**Investment Highlights**

- **Focus**: A leading global specialist for photovoltaics system technology with 75 GW installed base
- **Complete portfolio** to serve all PV segments
- **Global reach**: Present in 18 countries with a strong sales and service infrastructure; serving > 180 countries
- **Award winning production**: CO₂ neutral production with a capacity of 15 GW p.a. in Germany
- **Bankable partner**: c. 40% equity ratio and c. 300m net cash
- **Technological Know-how & products** to benefit from strong growth in future fields such as energy management, storage & repowering
- **Strong partnerships** to create a new energy ecosystem

**Strategic Highlights**

**New Products**

**Awards**

Sunny Central Storage
Intersolar 2018

ennexOS
Intersolar 2018
Back up
Managing Board and Shareholder Structure

Managing Board

Juergen Reinert
CEO
born 1968
With SMA since 2011
Contract 2024

Ulrich Hadding
CFO
born 1968
With SMA since 2009
Contract 2019

Shareholder Structure

- SMA founders, their trusts and families: 25.17%
- Danfoss A/S: 54.83%
- Freefloat: 20.00%

1 as of January 23, 2019, Company Information
Thank you