



# Energizing the Future.

HALF-YEARLY FINANCIAL REPORT JANUARY TO JUNE 2018

SMA Solar Technology AG

# SMA SOLAR TECHNOLOGY AG

## AT A GLANCE

SMA Group		H1 2018	H1 2017	Change	Full Year 2017
Sales	€ million	394.6	381.1	3.5%	891.0
Export ratio	%	81.5	82.4		81.8
Inverter output sold	MW	4,305	3,830	12.4%	8,538
Capital expenditure	€ million	17.8	14.8	20.3%	33.2
Depreciation and amortization	€ million	26.2	26.5	-1.1%	53.2
EBITDA	€ million	40.9	29.2	40.1%	97.3
EBITDA margin	%	10.4	7.7	35.1%	10.9
Net income	€ million	11.2	8.8	27.3%	30.1
Earnings per share <sup>1</sup>	€	0.32	0.25		0.87
Employees <sup>2</sup>		3,408	3,130	8.9%	3,213
in Germany		2,190	2,049	6.9%	2,077
abroad		1,218	1,081	12.7%	1,136

SMA Group		2018/06/30	2017/12/31	Change
Total assets	€ million	1,159.0	1,216.2	-5%
Equity	€ million	610.8	611.5	0%
Equity ratio	%	52.7	50.3	
Net working capital <sup>3</sup>	€ million	186.5	167.9 <sup>6</sup>	11%
Net working capital ratio <sup>4</sup>	%	20.6	18.8 <sup>6</sup>	
Net cash <sup>5</sup>	€ million	393.4	449.7	-13%

<sup>1</sup> Converted to 34,700,000 shares

<sup>2</sup> Reporting date; without temporary employees

<sup>3</sup> Inventories and trade receivables minus trade payables

<sup>4</sup> Relating to the last twelve months (LTM)

<sup>5</sup> Total cash minus interest-bearing financial liabilities

<sup>6</sup> Adjusted prior year value

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# BASIC INFORMATION ABOUT THE GROUP

## BUSINESS ACTIVITY AND ORGANIZATION

SMA Solar Technology AG (SMA) and its subsidiaries (SMA Group) develop, produce and distribute PV inverters, transformers, choke coils and monitoring systems for PV systems. Furthermore, the Company offers intelligent energy management solutions and operation and maintenance services for photovoltaic power plants (O&M business), in addition to other services. Another area of business is digital services for future energy supplies.

### Organizational Structure

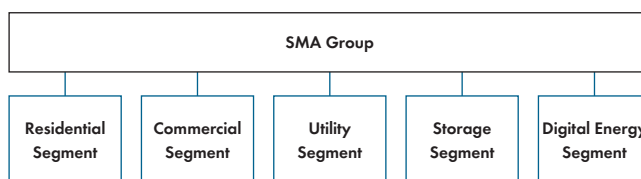
#### LEGAL STRUCTURE OF THE GROUP

As the parent company of the SMA Group, SMA, headquartered in Niestetal near Kassel, Germany, provides all of the functions required for its operative business. The parent company holds, either directly or indirectly, 100% of the shares of all the operating companies that belong to the SMA Group. The Half-Yearly Financial Report includes information regarding the parent company and all 35 Group companies (H1 2017: 33), including eight domestic companies and 27 companies based abroad. In addition, SMA is holding 28.27% interest in Tigo Energy, Inc. Tigo Energy, Inc. is recognized as an associate in the Consolidated Financial Statements according to the equity method.

#### ORGANIZATIONAL AND REPORTING STRUCTURE

The SMA Group operates under a functional and compact organization. This expedites fast decisions and a lean management structure. In this organization, the Residential & Commercial and Utility business units take on overall responsibility and manage development, operational service and sales, as well as production and procurement/logistics. The Residential and Commercial segments will still be presented separately in the reporting structure. In addition, the Service business unit was integrated into the Residential & Commercial and Utility business units, resulting in Service segments no longer being reported in fiscal year 2018. SMA Sunbelt Energy GmbH and the Off-Grid & Storage business unit have been combined in the Storage segment. The Digital Energy reporting segment, arising from the new business area of the same name that was established in January 2018, is reported for the first time in the fiscal year 2018.

## REPORTING STRUCTURE



## MANAGEMENT AND CONTROL

As required by the German Stock Corporation Act (Aktiengesetz), the executive bodies consist of the Annual General Meeting, the Managing Board and the Supervisory Board. The Managing Board manages the Company; the Supervisory Board appoints, supervises and advises the Managing Board. The Annual General Meeting elects shareholder representatives to the Supervisory Board and grants or refuses discharge to the Managing Board and the Supervisory Board.

#### COMPOSITION OF THE MANAGING BOARD

Since January 1, 2017, the Managing Board of SMA Solar Technology AG has comprised the following members: Pierre-Pascal Urbon (chief executive officer, board member for strategy, sales and service), Dr.-Ing. Jürgen Reinert (deputy chief executive officer, board member for operations and technology) and Ulrich Hadding (board member for finance, human resources and legal).

#### COMPOSITION OF THE SUPERVISORY BOARD

The SMA Supervisory Board, which represents shareholders and employees in equal measure, consists of Roland Bent, Peter Drews, Dr. Erik Ehrentraut (chairman), Kim Fausing (deputy chairman), Alexa Hergenröther and Reiner Wetzlauffer as shareholder representatives. The employees are represented on the Supervisory Board by Oliver Dietzel, Johannes Häde, Heike Haigis, Yvonne Siebert, Dr. Matthias Victor and Hans-Dieter Werner.

## RESEARCH AND DEVELOPMENT

SMA has set trends in the global photovoltaic industry for many years. In the last five years alone, we have invested around €500 million in the development of new products and solutions.

We use our comprehensive systems expertise to develop complete solutions for different photovoltaic applications and for comprehensive energy management across all segments and sectors (power generators, household appliances, storage systems, heating, ventilation and air conditioning, e-mobility). To offer our customers the best system solutions in both technology and economic efficiency in all market segments and regions, we selectively collaborate with strong partners. With our continuous research and our market- and customer-focused development, we can further reduce the consumer cost of PV electricity and thus make a significant contribution to a successful global energy transition. Our innovations have won numerous awards, most recently in June 2018 at Intersolar Europe in Munich.

## Forward-Looking Development Approach and High Capacity for Innovation

Our thorough understanding of different market requirements and our close proximity to our customers enable us to anticipate future system technology demands. Customers used to be concerned primarily with energy yield, service life and design flexibility. Now, however, consumer PV electricity costs, system integration as well as connectivity are the key factors in making a purchasing decision. With the increasing integration of PV systems into comprehensive systems, data security is also playing an ever more important role. In this context, the PV inverter is classified as a system-critical component, so customers place higher demands on the transparency of companies.<sup>1</sup>

In product development, we are pursuing a platform strategy aimed at systematically reducing product costs and being able to react quickly to market changes. By standardizing the core inverter, we are capable of increasing the proportion of identical components across the entire portfolio. Customization in line with different markets and customer needs is implemented through the connection area and software. Thanks to our high capacity for innovation, we are able to launch new solutions and product enhancements within an extremely short space of time. This is made possible as result of our international development teams working together closely, thus allowing for optimal use of capacity. SMA had been granted 1,131 patents and utility models worldwide by the end of the reporting period. In addition, around 600 other patent applications were still pending as of June 30, 2018. Furthermore, SMA holds the rights to 958 trademarks.

<sup>1</sup> This paragraph is not a mandatory component of the management report and therefore not a subject of the financial audit.

## Complete Solutions to Lower Energy Costs

### PRIVATE SYSTEMS: MORE SELF-CONSUMPTION AND INTEGRATION OF E-MOBILITY

In the period under review, SMA expanded its portfolio of solutions for reducing household energy costs in the market segment for smaller residential PV systems (Residential). The focus here was on more efficient use of self-generated solar power and intelligent energy management across all sectors.

With smart module technology that can be used in a targeted way and the SMA Smart Connected service function integrated directly in the inverter, the SMA Power+ Solution facilitates maximum energy yields and the greatest possible convenience for PV system owners and installers. In addition to the proven Sunny Boy inverters, SMA presented another valuable core component for the solution during the reporting period: the new Sunny Tripower 3.0-6.0 PV inverter. With a weight of just 17 kilograms, this small three-phase inverter for residential PV systems is lighter and more compact than comparable products. Low weight is particularly important for solar power professionals, as it makes installation considerably easier. Via the integrated web interface, the Sunny Tripower can quickly and easily be put into operation using a smartphone or tablet.

In June, SMA also announced another partnership for intelligent integration of e-mobility into home energy management. In this cooperation, Audi and SMA will pool their expertise to develop an integrated solution for cost-optimized charging of the electric model Audi e-tron. This solution is intended to be available from the first quarter of 2019.

### COMMERCIAL APPLICATIONS: AWARD-WINNING ENERGY MANAGEMENT AND CONVENIENT DIRECT MARKETING

In the medium-sized inverter segment for commercial applications (Commercial), SMA launched its completely new IoT platform for energy management at the start of 2018: ennexOS effectively reduces energy costs across all sectors (power generators, household appliances, storage systems, heating, ventilation and air conditioning, e-mobility). The modular functionality of the platform

can be adjusted based on the user's individual requirements at any time. This ranges from monitoring energy flows and automatically optimizing total energy costs to involving households and companies in the energy market of the future. As a central interface, the new SMA Data Manager M allows for perfect communication and monitoring and can also be used to manage all future energy flows. After ennexOS was presented with the prestigious Terawatt Diamond Award for outstanding technological developments at the Chinese solar power trade fair SNEC in Shanghai in May, it went on to win the smarter E AWARD when this was conferred for the first time at Intersolar Europe in June. Expansion of the platform for private residential PV systems and the segment of large commercial systems and PV power plants is planned for the end of 2018.

In addition, SMA presented its new planning software Sunny Design Pro at Intersolar Europe. For the first time, the software makes it possible for system planners to plan commercial PV systems across all sectors, simulate operations and calculate total system costs. Electrical power generators and loads, battery storage systems and thermal components such as heating and heat pumps are all taken into account here.

Also during the reporting period, SMA and the Mannheim-based energy company MVV Energie AG launched SMA SPOT, their jointly developed solution for direct marketing of solar power. This is Germany's first economic direct marketing solution for PV systems with an output of more than 100 kWp that factors in the proportion of electricity demand that can be covered by self-generated electricity. There are also plans to offer this service in other regions in the future.

#### PV POWER PLANTS: HIGH-PERFORMANCE AND COST-EFFECTIVE SOLUTIONS FOR CENTRAL AND DECENTRALIZED ARCHITECTURES

In the segment of large-scale PV power plants (Utility), development in the reporting period focused on further increasing power density to reduce PV power plants costs with central and decentralized designs, and on secure system integration.

The new Sunny Highpower PEAK3 is the first SMA string inverter for 1,500 volt DC voltage. The inverter with an output of 150 kWp allows for flexible planning, rapid project implementation and easy service in PV power plants with a decentralized architecture. Its market launch is planned for the second quarter of 2019.

In 1,500 volt PV power plants with central architecture, the new Sunny Central 3000-EV can reduce specific costs by up to 10% thanks to its high power density. Additionally, with its further optimizations, the central inverter can operate at full power even at temperatures of up to 35°C.

The new SMA Power Plant Manager provides reliable and secure grid connection for central and decentralized large-scale PV power plants. With its flexible data and signal interfaces based on the SMA energy management platform ennexOS and extensive grid stabilization functions, this development of the proven SMA Power Plant Controller allows for simple integration, even in unstable grids. Its market launch is planned for the beginning of 2019.

#### STORAGE SEGMENT: FLEXIBLE STORAGE INTEGRATION FOR ALL SYSTEM SIZES<sup>1</sup>

The Storage segment is comprised of SMA's system technology for integrating battery-storage systems of all system sizes. Here, SMA launched the Sunny Boy Storage in the new power classes 3.7 kW, 5.0 kW and 6.0 kW during the reporting period. With the AC-coupled solution for integrating high-voltage batteries into residential PV systems, it is particularly easy and cost-effective to equip new and existing PV systems and subsequently flexibly enhance them. With this solution, SMA has reduced system costs, making it possible for households to save up to 80% on their electricity costs.

The new Sunny Central Storage, the key element of SMA's solution for large storage systems, won the ees AWARD at Intersolar Europe. The battery inverter for global use has a high power density and is compatible with virtually all battery technologies thanks to its wide battery voltage range. With its ability to ensure off-grid supply as well, the Sunny Central Storage is optimally prepared for future requirements. It is available as a turnkey container solution in combination with medium-voltage transformers and switchgears.

<sup>1</sup> This paragraph is not a mandatory component of the management report and therefore not a subject of the financial audit.

# ECONOMIC REPORT

## GENERAL ECONOMIC CONDITIONS AND ECONOMIC CONDITIONS IN THE SECTOR

### General Economic Conditions

The recovery of the global economy that began around two years ago continued in the first half of 2018 and has reached its peak in some industrialized countries, according to the International Monetary Fund (IMF). However, growth over the past few months was unevenly distributed. Industrialized countries displayed a positive development overall. But while GDP and employment in the U.S. increased substantially in view of tax cuts and higher government spending, there was a slowdown in the previously above-average growth in some eurozone countries, such as Germany, France and Italy, as well as in the UK and Japan.

Developing and newly industrialized countries also recorded generally positive but uneven development. Influencing factors such as a rise in oil prices, higher interest rates in the U.S., the appreciation of the dollar, trade tensions and geopolitical conflicts had different effects on individual markets. For example, the rise in oil prices as a result of supply shortfalls and geopolitical tensions had a positive impact on exporters of crude oil such as Russia and some Middle Eastern countries. By contrast, it represented a burden for importers of crude oil such as India.

### Economic Conditions in the Sector

Photovoltaics have proven to be increasingly competitive in recent years. In a growing number of regions around the world, solar power is now more cost-efficient than conventionally generated electric energy. For example, large-scale solar projects in the Middle East are already generating solar power at less than \$0.02 per kWh in some cases. This points the way to an environment in which the industry will grow in the medium and long term, even without subsidization. In the wake of the transformation of global energy supply structures, current and future objectives include intelligently linking different technologies and providing intermediate storage solutions for generated energy, thereby ensuring a reliable and cost-effective electricity supply based on renewable energies.

### GLOBAL PV MARKET: NEW INSTALLATIONS UP, SALES DOWN

Based on newly installed power of approximately 50 GW (H1 2017: approx. 45 GW), the global photovoltaic market was significantly above the previous year's level in the first half of 2018, according to SMA's estimates. (These installation figures do not include inverter retrofitting in the case of existing PV systems or battery inverter technology.) SMA estimates that global PV inverter technology sales, including inverter retrofitting and battery inverter technology, fell by around 4% to €2.5 billion in the reporting period (H1 2017: €2.6 billion).

The regional distribution of demand changed only slightly in the reporting period. In the photovoltaic markets in Europe, the Middle East and Africa (EMEA), inverter technology sales were on a par with the previous year at approximately €600 million (H1 2017: €600 million). The share of the EMEA region in global sales rose to around 24% (H1 2017: 23%). System technology for storage applications and the retrofitting of existing PV systems accounted for a significant portion of sales in the EMEA region at around 30%. Sales in North and South America (Americas) likewise remained stable at almost €500 million. Here, the decline in sales in the biggest market, the U.S., was offset by growth in Mexico in particular. The region thus accounted for around 20% of global sales (H1 2017: €500 million, 19%). After strong growth in the previous year, the Chinese PV market recorded a decrease. With an investment volume of approximately €600 million, China accounted for around 24% of global sales in the reporting period (H1 2017: €700 million; 27%). The Asia-Pacific photovoltaic markets (excluding China) accounted for around 32% of the global market with sales of around €800 million, which were thus on a par with the previous year (H1 2017: €800 million; 31%).

### EMEA: GERMANY IS MOST IMPORTANT MARKET

In the Europe, Middle East and Africa (EMEA) region, newly installed PV power increased significantly to 8.4 GW in the first half of the year (H1 2017: 5.9 GW). At 1.3 GW (H1 2017: 0.9 GW), Germany was the most significant market in Europe in terms of newly registered PV power in the period under review. The number of commercial systems in particular grew significantly year on year.

Development in other European countries was mixed. The United Kingdom's market significance has declined as a result of radical subsidy cuts. By contrast, installations in the Benelux countries, France and Turkey posted significant positive development year on year.

#### AMERICAS: SALES IN U.S. MARKET DECREASE

The U.S. market was still dominated by large-scale solar projects in the reporting period. The SMA Managing Board estimates PV installation in the first half of 2018 at around 5 GW (H1 2017: 4.4 GW). As a result of the sharp decrease in selling prices, sales for PV inverters fell by around 10% to approximately €340 million (H1 2017: approx. €380 million). The punitive duties imposed by the U.S. government on imports of PV cells and modules are causing uncertainty on the market and inhibiting growth.

#### APAC: REGION STABLE, DECREASE IN CHINA

According to SMA estimates, around 20 GW of new PV power was installed in China in the first half of 2018. The installation volume was down by around 17% on the previous year's level. Furthermore, on May 31, 2018, the Chinese energy agency (NEA) announced – to the complete surprise of all market participants – a drastic reduction of the PV expansion targets for 2018 and of the feed-in tariff, effective immediately. As a result, the Chinese market is expected to shrink by half in 2018. Further information on the effects of the subsidy cuts is provided in the Forecast Report on page 17.

In Japan, around 3.7 GW of new PV power was installed in the first half of 2018 (H1 2017: 3.4 GW). According to estimates, inverter technology investments amounted to approximately €400 million in the reporting period (H1 2017: €400 million). The driving segments here were commercial systems and large-scale PV power plants, as well as retrofitting of existing PV systems.

India is also playing an important role with the market developing extremely positively. There are various incentive programs and a fundamental effort on the part of the government to supply the entire country with renewable power. 100 GW of PV power is to be installed in the country by 2022. At present, India has an installed capacity of only around 23 GW overall. PV systems with a total capacity of approximately 6 GW were installed in India in the reporting period, almost 50% more than in the same period of the previous year (H1 2017: 4.1 GW). However, the price level in India is still extremely low. For this reason, inverter technology sales were at the previous year's level at only €140 million (H1 2017: €140 million). More than 90% of the new installations were large-scale projects. Medium-sized commercial and small private systems are still not highly relevant in India.

## RESULTS OF OPERATIONS

### Sales and Earnings

#### SMA INCREASES SALES AND OPERATING EARNINGS

From January to June 2018, the SMA Group sold PV inverters with accumulated power of 4,305 MW (H1 2017: 3,830 MW). In the reporting period, sales increased by 3.5% to €394.6 million (H1 2017: €381.1 million). This sales growth resulted chiefly from the positive development in the European countries, the Middle East and Africa (EMEA) and in the Asia-Pacific (APAC) region.

Thanks to its strong international positioning, SMA continues to benefit from the development in global photovoltaic markets. SMA has been continuously investing in the expansion of its global infrastructure in recent years and now generates substantial sales contributions in all regions. In the reporting period, the Company generated 44.1% of external sales in European countries, the Middle East and Africa (EMEA), 38.6% in the Asia-Pacific (APAC) region and 17.3% in the North and South American (Americas) region calculated before sales deductions (H1 2017: 39.7% EMEA, 35.5% APAC, 24.8% Americas).

The Utility segment made the largest contribution to sales in the first half of 2018, accounting for 38.1% (H1 2017: 32.1%). The Commercial segment generated 33.6% of the SMA Group's sales, while the Residential segment contributed 21.0% and the Storage segment 7.3% in the reporting period (H1 2017: 32.7% Commercial, 27.9% Residential, 7.3% Storage).

The order backlog decreased to €579.7 million as of June 30, 2018 (June 30, 2017: €673.3 million). This decline can be explained first by reduced delivery times for SMA inverters and second by market uncertainty regarding the repercussions of U.S. import duties on PV cells and modules as well as the new framework conditions in China and the effects of resulting Chinese excess capacity on prices. The order backlog for product business declined by 33.0% compared with June 30, 2017, to €186.5 million. The most significant share of the order backlog (€393.2 million) is still attributable to the service business. Most of this share will be implemented over the next five to ten years.



In the reporting period, earnings before interest, taxes, depreciation and amortization (EBITDA) rose to €40.9 million (EBITDA margin: 10.4%; H1 2017: €29.2 million; 7.7%). Earnings for the first half of 2018 were impacted by one-time items. Due to the current implementation of a quality management project regarding the measurement of failure rates for inverters over their entire warranty periods, and due to updated cost rates, the estimate for necessary future costs was improved and thus substantiated. Based on this updated information, general warranty provisions were reversed in a total amount of €33.5 million. In addition, impairment on inventories was recognized in an amount in the low double-digit million euro range. EBIT was €14.7 million (H1 2017: €2.7 million). This equates to an EBIT margin of 3.7% (H1 2017: 0.7%). Net income amounted to €11.2 million (H1 2017: € 8.8 million). Earnings per share thus amounted to €0.32 (H1 2017: €0.25).

## Sales and Earnings per Segment

### JUMP IN EARNINGS IN RESIDENTIAL SEGMENT

In the Residential segment, SMA caters to global markets for small PV systems with and without connection to a smart home solution. The portfolio, which includes the SMA and Zevsolar brands, comprises smart module technology from Tigo Energy, Inc., single- and three-phase string inverters in the lower output range up to 12 kW, integrated services, energy management solutions, storage systems, communication products and accessories. SMA's Residential segment also offers services, such as extended warranties, spare parts and modernization of PV systems, to enhance performance. With this portfolio of products and services, SMA provides optimal solutions for private PV systems in all major photovoltaic markets worldwide.

In the first half of 2018, external sales in the Residential segment amounted to €82.8 million, equating to a decrease of around 22% compared with the same period in 2017 (H1 2017: €106.3 million<sup>1</sup>). This downturn can be accounted for primarily by the generation change for U.S. inverters in the first quarter of 2018, the shortage of semiconductors for Sunny Boy inverters and the comparatively high inventories held by distributors. The EMEA region made up 62.6% (H1 2017: 58.9%) of gross sales, the APAC region 21.0% (H1 2017: 30.1%) and the Americas region 16.4% (H1 2017: 11.0%).

In the first half of the year, EBIT improved significantly year on year to €15.6 million (H1 2017: -€4.1 million) due to the launch of new products and the positive one-time item as a result of the recalculation of general warranty risks. This item also included impairment on inventories resulting from product changes. Despite the year-on-year decrease in sales, the EBIT margin in relation to external sales climbed to 18.8% (H1 2017: -3.9%).

### COMMERCIAL SEGMENT INCREASES PROFITABILITY

In the Commercial segment, SMA focuses on global markets for medium-sized and large PV systems with and without an energy management solution. Here SMA offers solutions with three-phase Sunny Tripower inverters that are compatible with the smart module technology from Tigo Energy, Inc., with outputs of more than 12 kW, as well as inverters from the Sunny Highpower and Solid-Q brands. Holistic energy management solutions for medium-sized PV systems, medium-voltage technology and other accessories and services, from commissioning through remote monitoring to operational management, round off SMA's offering.

Although Sunny Tripower inverters were particularly impacted by the shortage of components during the reporting period, external sales in the Commercial segment increased to €132.4 million in the first half of 2018 (H1 2017: €124.5 million<sup>1</sup>). 53.8% of gross sales were attributable to the EMEA region, 37.7% to the APAC region, and 8.5% to the Americas region (H1 2017: 40.5% EMEA, 40.8% APAC, 18.7% Americas).

EBIT improved to €21.3 million in the first half of the year (H1 2017: -€0.3 million) as a result of new product launches and the positive one-time item from the recalculation of general warranty risks on the basis of the failure rate for SMA inverters. This item also included impairment on finished goods on account of product changes. In relation to external sales, the EBIT margin was 16.1% (H1 2017: -0.2%).

<sup>1</sup> The figures for the previous year for the Residential, Commercial and Utility segments were adjusted due to the reclassification of the Service segment to these segments as of January 1, 2018.

## NEGATIVE EARNINGS IN THE UTILITY SEGMENT

In the Utility segment, SMA serves the markets for large-scale PV power plants with central inverters from the Sunny Central brand and comprehensive services also encompassing operational management (O&M business). The outputs of Sunny Central inverters range from 500 kW to the megawatts. In addition, the SMA portfolio includes complete solutions comprising central inverters with their grid service and monitoring functions as well as all medium- and high-voltage technology and accessories.

External sales in the Utility segment rose by 23.0% to €150.5 million in the first half of 2018 (H1 2017: €122.4 million<sup>1</sup>) due to strong demand in the APAC region. The Utility segment thus accounted for the largest share of the SMA Group's total sales. The APAC region accounted for 54.9% (H1 2017: 41.6%) of the Utility segment's gross sales, the EMEA region for 23.6% (H1 2017: 15.7%) and the Americas region for 21.5% (H1 2017: 42.7%).

The Utility segment's EBIT deteriorated to -€18.3 million (H1 2017: €1.9 million) mainly as a result of individual warranty-related items amounting to a high single-digit million euro sum, poor price quality in certain markets, and a negative one-time item from the recalculation of general warranty risks based on the failure rate for SMA inverters. In relation to external sales, the EBIT margin was -12.2% (H1 2017: 1.6%).

## STORAGE SEGMENT IMPACTED BY ONE-TIME ITEM

The Storage segment comprises SMA Sunbelt Energy and the Off-Grid & Storage business unit, which predominantly serve the global battery storage market. In addition to system technology for the integration of battery-storage systems for all system sizes, the focus here is on implementing photovoltaic diesel hybrid systems in sunbelt areas around the world and large-scale storage projects in select markets.

External sales in the Storage segment amounted to €28.9 million in the reporting period, up 3.6% on the same period of the previous year (H1 2017: €27.9 million). The EMEA region accounted for 46.5% (H1 2017: 58.0%) of gross sales, the Americas region for 39.7% (H1 2017: 30.2%) and the APAC region for 13.8% (H1 2017: 11.7%).

The Storage segment's EBIT was -€0.8 million in the first half of 2018 (H1 2017: €0.2 million) and was impacted by a negative one-time item from the recalculation of general warranty risks based on the failure rate for SMA inverters. In relation to external sales, the EBIT margin was -2.8% (H1 2017: 0.7%).

## NEW BUSINESS AREAS BEING DEVELOPED

The new Digital Energy segment comprises the subsidiaries conevea GmbH and SMA Energy Direct GmbH. conevea GmbH develops digital energy services for private and business customers. SMA Energy Direct GmbH focuses on online sales channels for select markets. Another planned business unit will focus on developing and marketing a portal for energy data. This segment did not yet make a significant contribution to sales and earnings in the first half of 2018.

## Development of Significant Income Statement Items

The cost of sales fell by 3.3% to €297.8 million in the period under review (H1 2017: €308.1 million). This decrease is mainly attributable to the recalculation of general warranty risks described on page 9, which had a positive effect on earnings of €33.5 million. This more than offset the individual warranty-related items in the Utility segment and impairment on inventories. The gross margin amounted to 24.5% (H1 2017: 19.2%).

<sup>1</sup> The figures for the previous year for the Residential, Commercial and Utility segments were adjusted due to the reclassification of the Service segment to these segments as of January 1, 2018.

In the reporting period, personnel expenses included in cost of sales increased to €58.7 million (H1 2017: €54.8 million) due to the higher production volume and growth of the service business. Material expenses increased by around 4% and thus at a lower rate than inverter output sold to €220.6 million (H1 2017: €212.2 million). SMA is continuously working on its product portfolio in all segments to tackle price pressure by optimizing the cost of existing products and introducing new and less expensive products.

From January to June 2018, depreciation and amortization included in the cost of sales amounted to €23.2 million (H1 2017: €22.5 million). This includes scheduled depreciation on capitalized development costs of €10.2 million (H1 2017: €8.6 million). Other costs decreased by €23.3 million year on year to -€4.7 million (H1 2017: €18.6 million). This item includes the positive effect on earnings from the general warranty provisions, individual warranty-related items in the Utility segment and increased logistics costs, including for air cargo to reduce delivery times, as a result of the shortage of components.

Selling expenses slightly rose to €25.5 million (H1 2017: €24.8 million). This increase was mainly a result of enhanced global sales activities. The cost of sales ratio was 6.5% in the reporting period (H1 2017: 6.5%).

Research and development expenses, not including capitalized development projects, amounted to €31.6 million in the first half of 2018 (H1 2017: €31.0 million). This put the research and development cost ratio at 8.0% (H1 2017: 8.1%). Total research and development expenses, including capitalized development projects, increased to €41.7 million (H1 2017: €39.1 million) as a result of the development of new units in the Digital Energy segment and the uptick in new strategic product projects. Development projects were capitalized in the amount of €10.1 million (H1 2017: €8.1 million).

General administrative expenses totaled €25.5 million in the first half of 2018 (H1 2017: €26.5 million). The ratio of administrative expenses amounted to 6.5% in the reporting period (H1 2017: 7.0%).

The balance of other operating income and expenses resulted in a positive effect on earnings of €0.5 million in the reporting period (H1 2017: €12.1 million). This mainly includes foreign currency valuation effects. The previous year's figure for this item includes proceeds from the disposal of the SMA Railway division.

## EMPLOYEE HEADCOUNT INCREASED FROM HIRING TEMPORARY STAFF

SMA had 3,408 employees worldwide as of June 30, 2018<sup>1</sup>, equating to a year-on-year increase of 278 employees (June 30, 2017: 3,130 employees). This rise can be attributed primarily to SMA's hiring temporary employees on fixed-term contracts in the first half of 2018. SMA employed 2,190 people in Germany (June 30, 2017: 2,049 employees) and 1,218 people abroad (June 30, 2017: 1,081 employees).

SMA still uses temporary employees to absorb order fluctuations. Their hourly rate of pay is in line with that of SMA employees. In addition, temporary employees working at SMA also participate financially in the Company's success. As of the reporting date, SMA had 597 temporary employees worldwide, 16 fewer than in the previous year (June 30, 2017: 613 temporary employees) and 104 fewer than at the end of 2017 (December 31, 2017: 701 temporary employees).

### Employees

Reporting date	2018/ 06/30	2017/ 06/30	2016/ 06/30	2015/ 06/30	2014/ 06/30
Employees (excl. temporary employees)	3,408	3,130	3,339	4,134	5,018
of which domestic	2,190	2,049	2,077	2,823	3,485
of which abroad	1,218	1,081	1,262	1,311	1,533
Temporary employees	597	613	660	597	713
Total employees (incl. temporary employees)	4,005	3,743	3,999	4,731	5,731

### Full-Time Equivalents

Reporting date	2018/ 06/30	2017/ 06/30	2016/ 06/30	2015/ 06/30	2014/ 06/30
Full-time equivalents (excl. trainees and temporary employees)	3,238	2,946	3,126	3,880	4,667
of which domestic	2,039	1,878	1,883	2,583	3,094
of which abroad	1,199	1,068	1,243	1,297	1,573

<sup>1</sup> All the employee figures in this paragraph do not include temporary employees.

## FINANCIAL POSITION

### SMA has a Sound Liquidity Buffer

Gross cash flows reflect operating income prior to commitment of funds. This item amounted to €2.8 million in the first half of the 2018 fiscal year (H1 2017: €21.9 million).

In the first six months of the reporting year, net cash flow from operating activities amounted to -€27.3 million (H1 2017: €38.8 million). It was impacted significantly by a substantial rise in inventories and by tax payments for prior years due in the first half of 2018.

Inventories were increased by 24.6% to €205.6 million compared with the end of the previous year (December 31, 2017: €165.0 million) in order to support delivery capacity in the Residential and Commercial segments. Combined with the changes in trade payables and trade receivables, this resulted in a considerable increase in net working capital to €186.5 million (December 31, 2017: €167.9 million). The net working capital ratio in relation to sales over the past 12 months climbed to 20.6% (December 31, 2017: 18.8%). Starting in the 2018 fiscal year, net working capital also includes liabilities from advanced payments received for orders due to their operational nature. Thus, net working capital is calculated as inventories plus trade receivables minus trade payables and liabilities from advanced payments received for orders. The comparative figure for 2017 was adjusted accordingly. The net working capital ratio was within the range of 19% to 23% targeted by management.

In the first half of 2018, net cash flow from investing activities amounted to -€23.4 million after -€46.4 million in the previous year. The comparative figure for 2017 includes net cash inflows from the sale of the Railway Technology business division. The balance of cash inflows and outflows from financial investments was -€6.4 million (H1 2017: -€49.6 million). The outflow of funds for investments in fixed assets and intangible assets amounted to €17.8 million in the period under review (H1 2017: €14.8 million). With €10.1 million (H1 2017: €8.1 million), an essential part of the investments was attributable to capitalized development projects.

As of June 30, 2018, cash and cash equivalents amounting to €170.4 million (December 31, 2017: €234.9 million) included cash on hand, bank balances and short-term deposits with an original term to maturity of less than three months. With time deposits that have a term to maturity of more than three months, fixed-interest-bearing securities, liquid assets pledged as collateral and after deducting interest-bearing financial liabilities, this resulted in net cash of €393.4 million (December 31, 2017: €449.7 million).

## NET ASSETS

### Stable Equity Ratio of 53%

Total assets went down by 4.7% to €1,159.0 million as of June 30, 2018 (December 31, 2017: €1,216.2 million). At €347.4 million, non-current assets were below the level observed at the end of 2017 (December 31, 2017: €358.3 million).

Net working capital went up significantly to €186.5 million (December 31, 2017: €167.9 million) mainly as a result of increased inventories. This put the net working capital ratio in relation to sales over the past 12 months at 20.6%. Trade receivables decreased by 18.3% compared to December 31, 2017, to €130.8 million as of the end of the first half of 2018 (December 31, 2017: €160.0 million). Days sales outstanding came to 58.7 days and were thus lower than at the end of the previous year (December 31, 2017: 66.6 days). Inventories increased by 24.6% to €205.6 million (December 31, 2017: €165.0 million). Trade payables amounted to €130.3 million and were at the level reported at the end of 2017 (December 31, 2017: €130.4 million). The share of trade credit in total assets increased slightly to 11.2% as against the end of the previous year (December 31, 2017: 10.7%).

Despite the dividend payment made by SMA AG in May 2018, increased earnings kept the Group's equity capital base at €610.8 million (December 31, 2017: €611.5 million). With an equity ratio of 52.7%, SMA has a comfortable equity capital base and therefore an extremely solid balance sheet structure.

## Investment Analysis

In the first half of 2018, investments in fixed assets and intangible assets amounted to €17.8 million and were thus above the previous year's figure of €14.8 million. This equates to an investment ratio in relation to sales of 4.5% compared with 3.9% in the first half of 2017.

€7.4 million was invested in fixed assets (H1 2017: €5.9 million), predominantly for conversions and extensions of existing buildings and for machinery and equipment. The investment ratio for fixed assets was 1.9% in the first half of 2018 (H1 2017: 1.5%). Scheduled depreciation of fixed assets decreased to €14.7 million (H1 2017: €15.9 million).

Investments in intangible assets amounted to €10.4 million (H1 2017: €8.9 million). These largely related to capitalized development projects. Amortization of intangible assets amounted to €11.5 million and was thus marginally above the previous year's figure of €10.7 million.

# SUPPLEMENTARY REPORT

## Significant Events After the End of the Reporting Period

There have been no significant changes in the Company's situation or market environment since the end of the reporting period.

# RISKS AND OPPORTUNITIES REPORT

## RISK AND OPPORTUNITY MANAGEMENT SYSTEM

The 2017 Annual Report details risk and opportunity management, individual risks with a potentially significant negative impact on our business, results of operation, financial position and net assets and information on the Company's reputation. Our key opportunities are also outlined. Using our Risk Management System, we assess the overall risk situation to be manageable. The statements made in the 2017 Annual Report generally continue to apply. In the first six months of the 2018 fiscal year, we did not identify any additional significant risks or opportunities aside from those presented in the section on business activity and organization and in the additional information on the results of operation, financial position and net assets.

There are currently no discernible risks that, either alone or combined with other risks, could seriously jeopardize the livelihood of the Company or significantly impair business performance. The regulatory changes introduced in China at the end of May could have an impact on SMA's business results. It is not yet possible to make a conclusive assessment at present. For more information, please refer to the forward-looking statements in the Forecast Report.

# FORECAST REPORT

## PREAMBLE

The Managing Board's forecasts include all factors with a likelihood of impacting business performance that were known at the time this report was prepared. Not only general market indicators, but also industry- and Company-specific circumstances are factored into the forecasts. All assessments cover a period of one year.

## THE GENERAL ECONOMIC SITUATION: GLOBAL ECONOMY CONTINUES TO GROW, RISKS INCREASE

In its most recent update to the World Economic Outlook (WEO) from July 2018, the International Monetary Fund (IMF) confirms the forecast for global economic development in the current year, which was first published in January. This forecast indicates global economic growth of 3.9% (2017: 3.7%). However, IMF experts also emphasize that growth is becoming less even and risks are increasing. While momentum in the U.S. is increasing in the short term, the prospects for the eurozone, Japan and the United Kingdom have been revised down. Economic activity in these regions in the first few months of the year fell short of the IMF's expectations. Among emerging market and developing economies, development is also uneven. While the growth prospects for some oil-exporting nations have increased, IMF experts revised their projections down for Argentina, Brazil, and India. In the economists' view, the biggest risk for further growth of the global economy is posed by the recent announcements of further punitive duties by the U.S. and retaliatory measures by its trading partners. These could have a negative impact in both the short and the medium term.

For industrialized countries, IMF experts forecast growth of 2.4% in 2018, while for developing and newly industrialized countries, they anticipate growth of 4.9%. They still anticipate growth of 2.9% in the U.S. The IMF has lowered its forecast for the eurozone from 2.4% to 2.2%. For China, the experts are still forecasting lower growth of 6.6% year on year in 2018. For India, they anticipate strong growth of 7.3%, 0.6 percentage points up on 2017. For 2019, IMF experts still expect growth to remain at the level of the current year. However, they state that the risks have increased since the last forecast in April.

## FUTURE GENERAL ECONOMIC CONDI- TIONS IN THE PHOTOVOLTAICS SECTOR

### Renewable Energy Will Grow Faster Than Conventional Energy Carriers

Leading experts and institutions forecast that renewable energy will see much faster global growth than conventional energy carriers in the years to come. As in the previous years, photovoltaic and wind turbine systems will account for the majority of these new installations.

Experts at Bloomberg New Energy Finance (BNEF) also emphasize good prospects for renewable energy and photovoltaics in the medium term. In their New Energy Outlook 2018, they forecast that by 2050 photovoltaic and wind turbine systems will account for around 50% of global power generation as a result of further decreases in costs for power generation and batteries. According to BNEF experts, photovoltaics will be the least expensive source of energy in most countries around the world by as early as 2030, and the installed capacity of solar power will increase seventeen-fold by 2050.

In addition to the low production costs of solar power, the climate change goals resolved by a large community of countries at the 2015 UN Climate Change Conference in Paris represent another growth driver. This will lead to an accelerated expansion of renewable energies. Photovoltaics will benefit the most from this trend as solar power is generated in the vicinity of the consumer. Thanks to technological advancements, the consumer cost of PV systems will further decrease and their appeal will increase as a result. Affordable storage systems and modern communication technologies combined with services for cross-sector energy management will harmonize energy production and demand. The SMA Managing Board is therefore convinced of the market appeal and has thus positioned SMA to ensure it benefits from future developments.



## Global PV installations fall by around 20% as a result of new conditions in China

As a result of the reduced expansion target in China, the SMA Managing Board anticipates a decline in newly installed PV power worldwide of around 20% to 83 GW in 2018 (2017: 102 GW, previous forecast for 2018: 109 GW). This decline is attributable primarily to China. On May 31, 2018, the Chinese government had announced – to the complete surprise of all market participants – that it would drastically reduce the installation target and subsidies for PV systems with immediate effect. As a result, the installation volume in China is expected to decrease significantly this year to 25 GW (2017: 53 GW). Because 20 GW of photovoltaic power was already installed in China in the first half of 2018, the new conditions pose considerable challenges for the entire PV sector. The SMA Managing Board expects that Chinese manufacturers will sell off excess capacity of PV modules on the international markets by means of lower selling prices. Given that PV modules account for more than 50% of the investment costs for PV systems, this development will further increase the attractiveness of photovoltaics. With regard to PV inverters, the SMA Managing Board expects the consolidation to accelerate, as many Chinese inverter manufacturers have so far generated a significant share of their sales in their domestic market and do not have the prerequisites for successful international business.

In this context, global investments in system technology for traditional photovoltaic applications will probably fall by around 15%. In contrast, investments in system technology for storage applications (excluding investments in batteries) will increase by approximately €100 million compared to the previous year. Overall, the SMA Managing Board therefore expects investments in PV system technology (including system technology for storage systems) of around €4.7 billion in 2018 (2017: €5.3 billion, previous forecast for 2018: €5.5 billion). The Managing Board still rates the medium-term prospects for the PV industry positively. The transformation of the energy sector toward decentralized energy generation will continue to accelerate as a result of the anticipated price decreases for PV modules. In addition, automated networking of photovoltaics with stationary storage systems, air-conditioning and ventilation technology and LED lighting will open up new growth segments for technology-focused companies.

## Affordable Storage Technology as a Catalyst for Demand in EMEA

The SMA Managing Board anticipates an increase in newly installed PV power of approximately 21% to nearly 16 GW in the Europe, Middle East and Africa (EMEA) region in 2018. In addition to private residential PV systems, commercial PV systems will also continue to play an important role. According to SMA estimates, investments in PV and storage system technology will remain stable year on year at an expected €1.3 billion as a result of high price momentum. The stable development in euros is particularly attributable to the business with system technology for storage applications. By contrast, investments in traditional inverter business are decreasing. Battery-storage systems are gaining importance in Europe, especially in Germany, the UK, and Italy. In addition to the business involving new systems for consumption of self-generated energy, the retrofitting of existing systems with new inverters and storage systems will also yield high potential in the medium term. For many PV systems, government subsidization will end in the years to come. Self-consumption of solar power is a particularly attractive option for the operators of these systems.

## Regulatory Environment Hurts Investments in the U.S.

For the Americas region, the SMA Managing Board anticipates growth in newly installed PV power of around 13% to 16 GW. In addition to the South American markets, the Managing Board also expects the North American markets to increase and install around 13 GW of new PV power. This will be driven by a substantial anticipated increase in Mexico (part of the sales region North America). Investments in inverter technology in the Americas region will fall to around an estimated €1.0 billion (2017: €1.1 billion) as a result of the price dynamics. In the U.S., the punitive duties adopted in January for PV cells and modules produced abroad and the punitive duties introduced by the U.S. government for imports (including electronic components) from China are expected to have a negative impact on market development. The resulting higher prices for overall systems are reducing the economic attractiveness of photovoltaics. Demand in the Residential and Commercial segments is currently influenced by strict regulations set forth in the National Electrical Code (NEC). Medium-term prospects are positive here as well for manufacturers that can offer products that comply with the new standard.

## Significant decline in China causes decrease in Asia-Pacific region investments

The most important markets in the Asia-Pacific (APAC) region include China, India, Australia and Japan. In Japan and Australia, the installation of PV systems combined with battery-storage systems to supply energy independently of fossil energy carriers offers additional growth potential. In China, the SMA Managing Board estimates that new PV installations will fall to 25 GW in 2018 (2017: 53 GW) due to the drastic cuts by the Chinese government as described before. Investments in inverter technology are expected to drop nearly by half and amount to €800 million (2017: €1.5 billion). For the APAC region, excluding China, the SMA Managing Board expects newly installed PV power to increase by approximately 20% to around 26 GW in 2018 (2017: 21 GW). The growth will be driven in particular by the Indian market. However, high price pressure will largely erode volume growth. The SMA Managing Board therefore expects investments of approximately €1.6 billion in inverter technology for this region (2017: €1.4 billion).

## Growth Markets: Energy Management, Smart Module Technology and Operational Management

The trend to regionalize power supplies is gaining momentum. More and more households, cities and companies are becoming less dependent on energy fuel imports and rising energy costs by having their own PV systems. This will lead to a rise in demand for energy storage solutions in the residential, commercial and industrial sectors. In addition, energy will be increasingly distributed via smart grids to manage electricity demand, avoid consumption peaks and take the strain off utility grids. E-mobility is also expected to become an important pillar of these new energy supply structures a few years from now. Integration of electric vehicles will help increase self-consumption of renewable energies and offset fluctuations in the utility grid. Using artificial intelligence, the behavior of decentralized energy consumers and storage systems can be adapted to the fluctuating production of electricity from renewable energies, thus enabling the overall system to be optimized.

Against this background, SMA's Managing Board holds that innovative system technologies that temporarily store solar power and provide energy management to private households and commercial enterprises offer worthwhile business opportunities. Rising prices for conventional domestic power and many private households and companies wanting to drive forward the energy transition by making their contribution to a sustainable and decentralized energy supply are the basis for new business models. Demand for solutions that increase self-consumption of solar power is likely to rise particularly in European markets, the U.S., Australia and Japan. In these markets, renewable energies are already taking on a greater share in the electricity supply. In addition, power supply companies are increasingly using battery-storage systems to avoid expensive grid expansions, stabilize grid frequency and balance fluctuations in the power feed-in from renewable energy sources. The SMA Managing Board expects the volume of the still fairly new storage market to be around €700 million in 2018 (excluding investments in batteries). Estimated demand is already included in the specified development projections for the entire inverter technology market.

In addition to storage technology, digital energy services aimed at optimizing household and commercial enterprises' energy costs and their connection to the energy market, are also becoming increasingly significant. The SMA Managing Board expects this area to represent an addressable market of approximately €400 million in 2018. The market will then grow exponentially in subsequent years.

The SMA Managing Board also sees good growth prospects in the field of smart module technology to increase the functionality and performance of PV modules (module level power electronics, MLPE). These technologies include micro inverters and DC optimizers, among others. The SMA Managing Board estimates that DC optimizers in particular will gain in importance over the currently dominant string inverter technology without optimizers in the years to come. This trend is emanating from North America because regulatory requirements in the markets there encourage the use of DC optimizers.

The technical management of commercial systems and large-scale PV plants is another growth segment. This includes a range of services, such as repairs, device replacements as well as visual inspections and maintenance of entire systems. The market in this segment had an accumulated installed capacity of over 350 GW at the end of 2017 and will have an expected 420 GW by the end of 2018. The SMA Managing Board is estimating the addressable market share, which is not yet or no longer under contract, at 128 GW in 2018, which corresponds to a potential of at least €1 billion. Prices are calculated yearly per MW and vary significantly depending on the regions and services included.

## OVERALL STATEMENT FROM THE MANAGING BOARD ON EXPECTED DEVELOPMENT OF THE SMA GROUP

### Managing Board Anticipates Sales and Earnings Growth

For the second half of the year, the SMA Managing Board anticipates a considerably better business performance than in the past few months. Against this backdrop, the Managing Board is confirming its sales and earnings forecast for the current fiscal year, which was published for the first time on January 24, 2018. It predicts a sales increase to between €900 million and €1.0 billion (2017: €891.0 million). This will be driven mainly by generally good market development and in particular by the continued strength of Asian and European business. Against this backdrop, the SMA Managing Board expects earnings before interest, taxes, depreciation and amortization (EBITDA) of between €90 million and €110 million (2017: €97.3 million). EBITDA includes for the first time expenses of more than €10 million related to establishing the digital energy business. Depreciation and amortization are expected to amount to approximately €50 million. As a result, the Managing Board expects EBIT to be at least on par with the previous year. The Managing Board's sales and earnings forecast is based on the assumption that no PV projects to a greater extent will be postponed in anticipation of further decreases in PV module prices. In addition, the Managing Board expects the supply situation with electronic components to improve in the second half of the year.

SMA's business model is not capital-intensive. Investments (including capitalized development costs) will increase to approximately €50 million (2017: €33.2 million), of which roughly €20 million will be attributable to capitalized development projects. The main factors contributing to this increase are testing and production facilities for new product generations and construction work on buildings. The SMA Group's working capital is expected to amount to between 19% and 23% of sales (December 31, 2017: 18.8% of sales). Starting in the 2018 fiscal year, this ratio also includes liabilities from advanced payments received for orders due to their operational nature. The comparative figure for 2017 was adjusted accordingly. Overall, the SMA Managing Board anticipates a positive free cash flow. In view of a build-up in inventories in order to support delivery capacity in the Residential and Commercial segments, net cash is expected to increase to up to €500 million (previous guidance: more than €500 million; December 31, 2017: €449.7 million).

### SMA Group Guidance for 2018 at a Glance

Key figure	Guidance 2018	2017
Sales in € million	900 to 1,000	891.0
EBITDA in € million	90 to 110	97.3
Capital expenditure in € million	approx. 50	33.2
Net working capital in % of sales	19 to 23	18.8
Net cash in € million	up to 500	449.7
Depreciation and amortization in € million	approx. 50	53.2

SMA's sales and earnings depend on global market growth, market share and price dynamics. Our global presence and our comprehensive portfolio of products and solutions for all segments enable us to respond quickly to changing market conditions, offset fluctuations in demand and take advantage of developments in global photovoltaic markets. Its broad product and solution portfolio in all market segments is a major distinguishing feature for SMA. The SMA Managing Board forecasts the following performance for individual SMA segments in fiscal year 2018:

### Segment Guidance for 2018 at a Glance<sup>1</sup>

Segment	Sales	EBIT
Residential	Up slightly	Up slightly
Commercial	Up	Up
Utility	Constant	Down slightly
Storage	Constant	Constant
Digital Energy	No comparative figure	No comparative figure

<sup>1</sup> The overview is based on the reporting structure applicable since January 1, 2018. The comparison includes the sales and earnings growth that has been generated since this date in the Residential, Commercial and Utility segments from the transfer of sales and earnings from the former Service segment.

## Megatrends Offer Additional Potential

The SMA Managing Board anticipates growth outside China in 2018, both in the market for private residential PV systems (Residential) and in the segments for commercial PV systems (Commercial) and PV power plants (Utility). SMA will be able to take advantage of the forecasted growth with its existing portfolio of products and solutions. Continuously investing around €500 million in development over the last five years alone has led to our award-winning product portfolio for all output ranges – from smart module technology to end-to-end turnkey solutions for multi-megawatt PV power plants.

Over the past months, we have launched cost-optimized products and solutions in global markets to increase our competitiveness. More new developments will follow in the coming months. This will also include further development of software applications that control the behavior of electrical appliances and storage systems on a fully automated basis and thereby offset fluctuations in the production of electricity from photovoltaics.

The megatrends of decarbonization, decentralization and digitalization are opening up excellent prospects for SMA. Photovoltaic inverter business has now been joined by system technology for storage applications, service and maintenance contracts for large-scale PV power plants (O&M business), and energy services, all of which will continue to become increasingly important in the future.

SMA is excellently positioned to benefit from these trends in all market segments and regions. No other competitor has comparable international presence or similar extensive technical expertise, encompassing all PV applications. Our total installed inverter output of over 65 GW worldwide is the ideal foundation for data-based business models, as inverters are the most suitable sensors for compiling valuable energy data. Our extensive knowledge of managing complex battery-storage systems and linking solar power systems with other energy sectors, such as heating, ventilation and cooling technology and e-mobility, is an excellent basis for developing future growth potential for digital energy solutions.

With our new subsidiary conevea GmbH, founded at the beginning of 2018, we are focusing on digital energy services for public utility companies, supermarket operators and housing companies. The offers range from monitoring energy flows and optimizing energy costs across all sectors to matching supply and demand via the energy management platform ennexOS developed by SMA. With SMA Energy Direct GmbH, also founded in the first quarter of 2018, we will establish online sales channels for select markets. Over the course of the year, we will also combine our activities in the field of energy data in another business unit, enabling us to provide targeted, data-based solutions and services that improve performance forecasts, optimize grid management and more.

As a specialist in complete solutions in the energy sector, SMA will specifically establish and expand additional strategic alliances to more quickly tap into the potential offered by digitalization. In addition, we will use our financial strength to invest in other digital and data-based business models.

## SMA Will Take Advantage of the Opportunities Posed by Digitalization

The SMA Managing Board adjusted its strategy to the market developments expected in the future. As the energy supply of the future becomes more and more decentralized and renewable, the requirements for system technology are increasing significantly. Establishing the technical conditions for fully automatic optimization of total energy costs and merging supply and demand are giving rise to attractive business opportunities for us. Therefore, SMA's continued development in the field of digital energy services is one of the most important strategic objectives for the years to come.

Thanks to our extensive experience in PV system technology, ability to quickly implement changes and our numerous strategic partnerships, SMA is well-prepared for the digitalization of the energy industry. The energy management platform ennexOS will enable us to cope with the complexity of the energy system of the future and to generate considerable added value for our customers.

We will build on our unique strengths and design additional system solutions for decentralized energy supplies based on renewable energy. We will launch a number of innovations and establish new strategic partnerships to take advantage of opportunities that arise from business models as part of the digitalization of the energy industry. We will be helped in this endeavor by SMA's extraordinary corporate culture and our motivated employees who make a decisive contribution to the Company's long-term success, as result, they are given a share in SMA's financial success.

Niestetal, July 31, 2018

SMA Solar Technology AG  
The Managing Board

Pierre-Pascal Urbon    Dr.-Ing. Jürgen Reinert    Ulrich Hadding

# HALF-YEAR CONSOLIDATED FINANCIAL STATEMENTS

## INCOME STATEMENT SMA GROUP

in €'000	Note	April – June (Q2) 2018	April – June (Q2) 2017	Jan. – June (H1) 2018	Jan. – June (H1) 2017
<b>Sales</b>	5	<b>212,193</b>	<b>207,917</b>	<b>394,647</b>	<b>381,072</b>
Cost of sales		154,166	167,192	297,779	308,075
<b>Gross profit</b>		<b>58,027</b>	<b>40,725</b>	<b>96,868</b>	<b>72,997</b>
Selling expenses		12,831	13,670	25,490	24,753
Research and development expenses		15,474	15,710	31,551	31,008
General administrative expenses		13,407	13,008	25,541	26,541
Other operating income		8,632	13,914	20,775	27,176
Other operating expenses		14,539	12,029	20,369	15,118
<b>Operating profit (EBIT)</b>		<b>10,408</b>	<b>222</b>	<b>14,692</b>	<b>2,753</b>
Result from at equity-accounted investments		-511	-965	-977	-965
Financial income		867	1,860	1,663	2,632
Financial expenses		507	331	818	695
<b>Financial result</b>	8	<b>-151</b>	<b>564</b>	<b>-132</b>	<b>972</b>
<b>Profit before income taxes</b>		<b>10,257</b>	<b>786</b>	<b>14,560</b>	<b>3,725</b>
Income taxes		1,849	-2,046	3,314	-5,375
<b>Profit from continuing operations</b>		<b>8,408</b>	<b>2,832</b>	<b>11,246</b>	<b>9,100</b>
Profit from discontinued operation		0	0	0	-289
<b>Net income</b>		<b>8,408</b>	<b>2,832</b>	<b>11,246</b>	<b>8,811</b>
of which attributable to shareholders of SMA AG		8,408	2,832	11,246	8,811
Earnings per share, basic/diluted (in €)	9	0.24	0.08	0.32	0.25
thereof from continuing operations (in €)		0.24	0.08	0.32	0.26
thereof from discontinued operation (in €)		0.00	0.00	0.00	-0.01
Number of ordinary shares (in thousands)		34,700	34,700	34,700	34,700

## STATEMENT OF COMPREHENSIVE INCOME SMA GROUP

in €'000	April – June (Q2) 2018	April – June (Q2) 2017	Jan. – June (H1) 2018	Jan. – June (H1) 2017
<b>Net income</b>	<b>8,408</b>	<b>2,832</b>	<b>11,246</b>	<b>8,811</b>
Unrealized gains (+)/losses (-) from currency translation of foreign subsidiaries	1,154	-3,231	182	-3,067
<b>Changes recognized outside profit or loss (currency translation differences)</b>	<b>1,154</b>	<b>-3,231</b>	<b>182</b>	<b>-3,067</b>
Cash flow hedges before taxes	0	9,954	0	14,704
Deferred taxes related to cash flow hedges	0	-3,027	0	-4,500
<b>Cash flow hedges after income taxes</b>	<b>0</b>	<b>6,927</b>	<b>0</b>	<b>10,204</b>
<b>Overall comprehensive result<sup>1</sup></b>	<b>9,562</b>	<b>6,528</b>	<b>11,428</b>	<b>15,948</b>
of which attributable to shareholders of SMA AG	9,562	6,528	11,428	15,948

<sup>1</sup> All items of other comprehensive income may be reclassified to profit or loss.

## BALANCE SHEET SMA GROUP

in €'000	Note	2018/06/30	2017/12/31
<b>ASSETS</b>			
Intangible assets	10	69,847	70,931
Fixed assets	11	205,414	212,552
Investment property		16,578	16,979
Other financial investments		2	2
Investments in associates		12,157	13,134
Deferred taxes		43,359	44,658
<b>Non-current assets</b>		<b>347,357</b>	<b>358,256</b>
Inventories	12	205,604	164,983
Trade receivables		130,787	160,001
Other financial assets (total)	13	248,079	248,546
Cash equivalents with a duration of more than 3 months and asset management		234,597	225,422
Rent deposits and cash on hand pledged as collaterals		7,652	9,853
Remaining other financial assets		5,830	13,272
Receivables from tax authorities (total)		45,218	38,328
Income taxes		26,593	20,476
Claims for VAT refunds		18,625	17,852
Other receivables		11,092	10,061
Cash and cash equivalents	20	170,366	234,853
		<b>811,146</b>	<b>856,772</b>
Assets classified as held for sale		500	1,180
<b>Current assets</b>		<b>811,646</b>	<b>857,952</b>
<b>Total assets</b>		<b>1,159,003</b>	<b>1,216,208</b>



in €'000	Note	2018/06/30	2017/12/31
<b>LIABILITIES</b>			
Share capital		34,700	34,700
Capital reserves		119,200	119,200
Retained earnings		456,899	457,616
<b>SMA Solar Technology AG shareholders' equity</b>	14	<b>610,799</b>	<b>611,516</b>
Provisions <sup>1</sup>	15	67,562	91,427
Financial liabilities <sup>2</sup>	16	16,571	18,095
Other liabilities (total)		166,232	163,410
Accrual item for extended warranties	18	158,285	155,985
Other financial liabilities	17	0	532
Remaining other liabilities	18	7,947	6,893
Deferred taxes		8,102	12,287
<b>Non-current liabilities</b>		<b>258,467</b>	<b>285,219</b>
Provisions <sup>1</sup>	15	56,829	64,622
Financial liabilities <sup>2</sup>	16	5,147	2,725
Trade payables		130,265	130,433
Income tax liabilities		4,557	12,152
Other liabilities <sup>1</sup> (total)		92,939	109,541
Human Resources department	18	21,890	24,062
Prepayments received	18	19,558	26,658
Other financial liabilities	17	13,685	19,454
Remaining other liabilities	18	37,806	39,367
<b>Current liabilities</b>		<b>289,737</b>	<b>319,473</b>
<b>Total equity and liabilities</b>		<b>1,159,003</b>	<b>1,216,208</b>
Total cash (in € million)		413	470
Cash and cash equivalents with a duration of more than 3 months and asset management + rent deposits and cash on hand pledged as collaterals			
Net cash (in € million)		393	450
Total cash – current and non-current financial liabilities			

<sup>1</sup> Not interest-bearing

<sup>2</sup> Includes not-interest-bearing current and non-current derivatives amounting to €2.5 million (2017: €0.4 million)

## STATEMENT OF CASH FLOWS SMA GROUP

in €'000	Jan. – June (H1) 2018	Jan. – June (H1) 2017
Net result	11,246	9,100
Income taxes	3,314	-5,375
Financial result	132	-972
Depreciation and amortization	26,191	26,546
Change in provisions	-31,659	-17,061
Result from the disposal of assets	46	-62
Change in non-cash expenses/revenue	13,582	5,936
Interest received	372	110
Interest paid	-554	-655
Income tax paid	-19,911	4,385
<b>Gross cash flow</b>	<b>2,759</b>	<b>21,952</b>
Change in inventories	-54,551	-15,982
Change in trade receivables	29,333	33,898
Change in trade payables	-168	834
Change in other net assets/other non-cash transaction	-4,625	-1,845
<b>Net cash flow from operating activities</b>	<b>-27,252</b>	<b>38,857</b>
Payments for investments in fixed assets	-7,428	-5,911
Proceeds from the disposal of fixed assets	769	1,440
Payments for investments in intangible assets	-10,362	-8,914
Proceeds from the disposal of available for sale assets net of cash	0	16,624
Proceeds from the disposal of securities and other financial assets	60,930	9,000
Payments for the acquisition of securities and other financial assets	-67,295	-58,631
<b>Net cash flow from investing activities</b>	<b>-23,386</b>	<b>-46,392</b>
Redemption of financial liabilities	-1,267	-1,254
Dividends paid by SMA Solar Technology AG	-12,145	-9,022
<b>Net cash flow from financing activities</b>	<b>-13,412</b>	<b>-10,276</b>
Net increase/decrease in cash and cash equivalents	-64,050	-17,811
Changes due to exchange rate effects	-437	7,216
Cash and cash equivalents as of January 1	234,853	216,124
<b>Cash and cash equivalents as of June 30</b>	<b>170,366</b>	<b>205,529</b>

## STATEMENT OF CHANGES IN EQUITY SMA GROUP

in €'000	Share capital	Capital reserves	Difference from currency translation	Cash flow hedges	Other retained earnings	Consolidated shareholders' equity
<b>Shareholders' equity as of January 1, 2017</b>	<b>34,700</b>	<b>119,200</b>	<b>8,750</b>	<b>-10,348</b>	<b>432,810</b>	<b>585,112</b>
Consolidated net result					8,811	8,811
Other comprehensive income after tax			-3,067	10,204	0	7,137
Overall result						15,948
Dividend payments of SMA Solar Technology AG					-9,022	-9,022
<b>Shareholders' equity as of June 30, 2017</b>	<b>34,700</b>	<b>119,200</b>	<b>5,683</b>	<b>-144</b>	<b>432,599</b>	<b>592,038</b>
<b>Shareholders' equity as of January 1, 2018</b>	<b>34,700</b>	<b>119,200</b>	<b>3,680</b>	<b>0</b>	<b>453,936</b>	<b>611,516</b>
Consolidated net result					11,246	11,246
Other comprehensive income after tax			182	0	0	182
Overall result						11,428
Dividend payments of SMA Solar Technology AG					-12,145	-12,145
<b>Shareholders' equity as of June 30, 2018</b>	<b>34,700</b>	<b>119,200</b>	<b>3,862</b>	<b>0</b>	<b>453,037</b>	<b>610,799</b>

# CONDENSED NOTES AS OF JUNE 30, 2018

## GENERAL INFORMATION

### 1. Basics

The Condensed Half-Year Consolidated Financial Statements of SMA Solar Technology AG as of June 30, 2018, were prepared – as were the Consolidated Financial Statements as of December 31, 2017 – in compliance with the International Financial Reporting Standards (IFRS) as adopted by the EU as well as in compliance with the regulations of Section 315e of the German Commercial Code (HGB). In fiscal year 2018, the Interim Financial Statements for SMA Solar Technology AG are therefore prepared in accordance with IAS 34 “Interim Financial Reporting”. Pursuant to the provisions of IAS 34, a condensed scope of reporting was chosen in comparison with the Consolidated Financial Statements as of December 31, 2017. The Condensed Financial Statements do not include all the information and disclosures required for consolidated financial statements and should therefore be read in conjunction with the Consolidated Financial Statements as of December 31, 2017.

The Condensed Half-Year Consolidated Financial Statements were prepared in euro. Unless indicated otherwise, all amounts are stated in euro and rounded to whole thousands (€'000) or millions (€ million) to improve clarity.

The Consolidated Financial Statements are prepared on the basis of the amortized acquisition cost principle. Exceptions to this are provisions, deferred taxes, leases and derivative financial instruments.

The income statement is classified according to the cost of sales method.

The Managing Board of SMA Solar Technology AG authorized the Half-Year Consolidated Financial Statements on July 31, 2018 for submission to the Supervisory Board.

The registered office of the Company is Sonnenallee 1, 34266 Niestetal, Germany. Shares of SMA Solar Technology AG are traded publicly. They are listed in the Prime Standard of the Frankfurt Stock Exchange. Since September 22, 2008, the Company's shares have been listed on the technology index TecDAX.

SMA Solar Technology AG (SMA) and its subsidiaries (SMA Group) develop, produce and distribute PV inverters, transformers, choke coils and monitoring systems for PV systems.

Furthermore, the Company offers intelligent energy management solutions and digital services for future energy supplies. Another area of business is operation and maintenance services for photovoltaic power plants (O&M business) in addition to other services.

More detailed information on the segments is provided in section 5.

### 2. Scope of Consolidation and Consolidation Principles

With the exception of Tigo Energy, Inc., all companies within the scope of consolidation are fully consolidated. Tigo Energy, Inc. is recognized as an associate in the Consolidated Financial Statements according to the equity method. Those companies entitled to investments in the list of shareholdings are not consolidated due to their subordinate importance.

The Half-Year Consolidated Financial Statements are based on the Financial Statements of SMA Solar Technology AG and the subsidiary companies included in the scope of consolidation, which were prepared using uniform accounting policies throughout the SMA Group.

Further details can be found in the Notes to the Consolidated Financial Statements as of December 31, 2017.

The scope of consolidation as of June 30, 2018, changed in comparison with December 31, 2017, as a result of the establishment of SMA Energy Direct GmbH and SMA Solar Technology de México S. de R.L. de C.V., Zeversolar New Energy GmbH was also renamed coneva GmbH.

### 3. Accounting and Valuation Policies and Adoption of New Accounting Standards

#### ACCOUNTING AND VALUATION POLICIES

There were the following changes in the accounting and valuation policies in these Half-Year Consolidated Financial Statements as of June 30, 2018, in comparison with the Consolidated Financial Statements of SMA Solar Technology AG as of December 31, 2017.

SMA applied the simplified approach provided for in IFRS 9.5.5.15 to measure trade receivables, contract assets and lease receivables. For trade receivables, a provision matrix is used. Historical default rates are used which are supplemented by current information and expectations on the reporting date.

#### ADOPTION OF NEW ACCOUNTING STANDARDS

##### Adoption of IFRS 9 “Financial Instruments”.

SMA applied IFRS 9 for the first time to the fiscal year starting on January 1, 2018. This first-time application was retrospective. There were no amendments. In accordance with the transitional provisions, SMA has chosen the option of continuing to present comparative information pursuant to IAS 39.

A standardized model is used to determine the measurement categories for financial assets and financial liabilities in accordance with IFRS 9. In the classification of financial assets, a distinction is made between the measurement categories “Amortized Cost”, “Fair Value through other Comprehensive Income” and “Fair Value through Profit or Loss”. Equivalent categories can be used for financial liabilities. All items are categorized in accordance with IFRS 9. With respect to SMA, there will be no changes to balance sheet disclosures other than the changes to the categories for classification, reference to section 19, Financial Instruments. As such, reconciliation of book values as provided for by IAS 39 and IFRS 9 will not be presented.

Minor effects have also arisen, particularly from the new impairment provisions according to IFRS 9. SMA applies the simplified model especially for trade receivables where the “Expected Lifetime Loss” is already taken into account. Trade receivables are the key balance sheet item for which expected impairment losses must be recognized in the future. The recognition of hedging relationships was stopped in 2017.

##### Adoption of IFRS 15 “Revenue from Contracts with Customers”.

SMA has applied the new IFRS 15 as the central standard for revenue recognition since January 1, 2018. The retrospective modifying method is used, which means that no contract modifications have been carried out. SMA applies the 5-step approach according to IFRS 15 to different sources of revenue. If necessary, the customer contracts are divided into separate performance obligations. The assessment of whether a performance obligation will be satisfied at a point in time or over time is also contractual.

SMA recognizes revenue from goods deliveries with transfer of control to the customer at a point in time in line with contractually agreed Incoterms. This policy is applied for all products across all segments. Transfer of control is also based on the agreed Incoterm for part deliveries in customer projects. Prepayments for part deliveries are recognized as contractual liabilities within other liabilities. For transportation services, which constitute a performance obligation in their own right, revenue is recognized on a time proportion basis. Sales revenue from services, provided these services are not rendered over time, is recognized at the point in time at which the obligation to the customer is satisfied in accordance with IFRS 15.38. Sales revenue from services recognized at a point in time plays a subordinate role for SMA. It relates primarily to the commissioning of large-scale projects and to repair orders. Revenue from services rendered over time, including extended warranty or service/maintenance contracts, is recognized on a straight-line basis over the contractual periods to which these services relate according to the output-based customer perspective. Cash inflows received in advance do not contain any material finance components. They are the result of a number of end-customer contracts each with small individual contract volumes.

Customer bonuses in the Residential segment are reported as contractual liabilities. The reported sales revenue and impairment on receivables relate exclusively to items from contracts with customers as defined in IFRS 15.

Contract assets arising from contracts with customers are currently reported under the balance sheet item "other financial assets". The current value amounts to €0,04 million.

If there were multiple performance obligations recognized at different points in time over the duration of a customer contract or a discount were to be applied to the entire customer contract, allocation of the transaction price would be necessary. Revenue from these business models have no material impact on SMA's Consolidated Financial Statements at present.

#### Adoption of IFRS 16 "Leases".

SMA did not take advantage of early application provided for by IFRS 16.C1. The forecast effects were outlined back in the 2017 Annual Report in section 2, Standards and Interpretations That Have Been Published But Are Not Yet Mandatory. On the basis of provisional analyzes related to the implementation of IFRS 16 carried out during the year, a balance sheet extension in the range of approx. €25 million to approx. €35 million and a presumably positive effect on EBITDA in the amount of approx. €15 million are expected.

#### Adoption of New Accounting Standards.

While compiling the Half-Year Consolidated Financial Statements, there were no new accounting standards that became effective in fiscal year 2018 as against December 31, 2017.

The SMA Group has not yet applied the new standards, interpretations or changes to the standards published that were not yet mandatory in 2018. The standards that have to be applied in the future can be found in the 2017 Annual Report, section 2, Accounting Principles and Amendments to Accounting Standards.

## 4. Significant Judgements, Estimates and Assumptions

In addition to individual circumstances, provisions for overall warranty risks are also taken into account when setting aside provisions for warranty obligations. In the case of warranty risks, an obligation of five to ten years is generally adopted as a base. Due to the current implementation of a project within the quality management with regard to the measurement of default rates over the entire warranty periods as well as the improved possibility to obtain statistically relevant data available for the first time on Company products sold, the estimation regarding future expenses could be improved and concretized. Calculation of the provision for statutory warranties based on this newly accessible more detailed data produced a positive effect of €33.5 million compared with the calculation based on the previous estimate. The effect is reflected in the amount of the provision and cost of sales with the same amount on the reporting date.

## 5. Segment Reporting<sup>1</sup>

The segments of the SMA Group are described in the organizational and reporting structure on page 4, as well as individually explained in the Results of Operations in the Economic Report on page 9 f.

### Key Figures by Segment and Region

The segment information in accordance with IFRS 8 for the second quarter of 2018 and 2017 is as follows:

in € million	External product sales		External services sales		Total sales	
	Q2 2018	Q2 2017	Q2 2018	Q2 2017	Q2 2018	Q2 2017
<b>Segments</b>						
Residential	40.4	58.1	3.5	4.9	43.9	63.0
Commercial	72.8	66.4	2.8	0.6	75.6	67.0
Utility	75.5	59.9	8.1	5.5	83.6	65.4
Storage	9.0	12.5	0.0	0.0	9.0	12.5
Digital Energy	0.0	0.0	0.0	0.0	0.0	0.0
Total segments	197.7	196.9	14.4	11.0	212.1	207.9
Reconciliation	0.0	0.0	0.0	0.0	0.0	0.0
<b>Continuing operations</b>	<b>197.7</b>	<b>196.9</b>	<b>14.4</b>	<b>11.0</b>	<b>212.1</b>	<b>207.9</b>

in € million	Depreciation and amortization		Operating Profit (EBIT)	
	Q2 2018	Q2 2017	Q2 2018	Q2 2017
<b>Segments</b>				
Residential	1.0	1.5	13.8	3.1
Commercial	1.6	0.4	20.1	1.7
Utility	2.8	2.7	-11.7	2.2
Storage	0.5	0.4	-3.3	-0.4
Digital Energy	0.0	0.0	-0.7	0.0
Total segments	5.9	5.0	18.2	6.6
Reconciliation	0.0	8.2	-7.8	-6.4
<b>Continuing operations</b>	<b>5.9</b>	<b>13.2</b>	<b>10.4</b>	<b>0.2</b>

Sales by regions (target market of the product)		
in € million	Q2 2018	Q2 2017
EMEA	103.5	94.5
Americas	34.4	52.6
APAC	78.6	66.6
Sales deductions	-4.4	-5.8
<b>External sales</b>	<b>212.1</b>	<b>207.9</b>
thereof Germany	43.4	45.1

<sup>1</sup> Due to the reclassification of the Service segment into the segments Residential, Commercial and Utility, the former Service segment is no longer valid. In the current fiscal year, business unit SMA Sunbelt Energy and business unit Off-Grid & Storage are reported under Storage. The previous year's figures were adjusted.

The segment information in accordance with IFRS 8 for the first half year of 2018 and 2017 is as follows:

in € million	External product sales		External services sales		Total sales	
	H1 2018	H1 2017	H1 2018	H1 2017	H1 2018	H1 2017
<b>Segments</b>						
Residential	74.4	97.0	8.4	9.3	82.8	106.3
Commercial	128.8	123.5	3.6	1.0	132.4	124.5
Utility	132.9	109.5	17.6	12.9	150.5	122.4
Storage	28.9	27.9	0.0	0.0	28.9	27.9
Digital Energy	0.0	0.0	0.0	0.0	0.0	0.0
Total segments	365.0	357.9	29.6	23.2	394.6	381.1
Reconciliation	0.0	0.0	0.0	0.0	0.0	0.0
<b>Continuing operations</b>	<b>365.0</b>	<b>357.9</b>	<b>29.6</b>	<b>23.2</b>	<b>394.6</b>	<b>381.1</b>

In the reporting period, no significant inter-segment revenues were recorded.

in € million	Depreciation and amortization		Operating Profit (EBIT)	
	H1 2018	H1 2017	H1 2018	H1 2017
<b>Segments</b>				
Residential	2.3	3.2	15.6	-4.1
Commercial	3.2	0.9	21.3	-0.3
Utility	5.5	5.3	-18.3	1.9
Storage	0.9	0.7	-0.8	0.2
Digital Energy	0.0	0.0	-1.3	0.0
Total segments	11.9	10.1	16.5	-2.3
Reconciliation	14.3	16.5	-1.8	5.0
<b>Continuing operations</b>	<b>26.2</b>	<b>26.6</b>	<b>14.7</b>	<b>2.7</b>

#### Sales by regions (target market of the product)

in € million	H1 2018	H1 2017
EMEA	177.3	155.0
Americas	69.7	96.8
APAC	155.4	138.6
Sales deductions	-7.8	-9.3
<b>External sales</b>	<b>394.6</b>	<b>381.1</b>
thereof Germany	74.8	68.9

Reconciliation of the segment figures to the correlating figures in the Financial Statements is as follows:

in € million	Q2 2018	Q2 2017	H1 2018	H1 2017
Total segment earnings (EBIT)	18.2	6.6	16.5	-2.3
Eliminations	-7.8	-6.4	-1.8	5.0
Consolidated EBIT	10.4	0.2	14.7	2.7
Financial result	-0.1	0.6	-0.1	1.0
<b>Earnings before income taxes</b>	<b>10.3</b>	<b>0.8</b>	<b>14.6</b>	<b>3.7</b>

Circumstances are shown in the reconciliation, which by definition are not part of the segments. In particular, this includes unallocated parts of the Group head office, including the centrally administered cash and cash equivalents, financial instruments, financial liabilities and buildings, the expenses of which are apportioned to the segments. In the prior year, the sale of SMA Railway Technology GmbH was included. Business relations between the segments are eliminated in the reconciliation.

<sup>1</sup> Due to the reclassification of the Service segment into the segments Residential, Commercial and Utility, the former Service segment is no longer valid. In the current fiscal year, business unit SMA Sunbelt Energy and business unit Off-Grid & Storage are reported under Storage. The previous year's figures were adjusted.



## NOTES TO THE INCOME STATEMENT SMA GROUP

### 6. Notes to the Income Statement

The notes to the income statement are made in the earnings situation of the Economic Report.

### 7. Employee and Temporary Employee Benefits

in €'000	H1 2018	H1 2017
Wages and salaries	93,859	87,803
Expenses for temporary employees	6,697	6,853
Social security contribution and welfare payments	15,304	13,964
	<b>115,860</b>	<b>108,620</b>

### 8. Financial Result

in €'000	H1 2018	H1 2017
<b>Loss from at equity-accounted investments</b>	<b>977</b>	<b>965</b>
Interest income	1,611	2,547
Other financial income	0	6
Income from interest derivatives	53	79
<b>Financial income</b>	<b>1,663</b>	<b>2,632</b>
Interest expenses	590	526
Other financial expenses	212	169
Interest portion from valuation of provisions	16	0
<b>Financial expenses</b>	<b>818</b>	<b>695</b>
<b>Financial result</b>	<b>-132</b>	<b>972</b>

### 9. Earnings per Share

Earnings per share are calculated by dividing the net income attributable to the shareholders by the weighted average of ordinary shares in circulation during the period. The number of shares in the first half of 2018 amounted to 34.7 million as in the previous year.

The net income attributable to the shareholders is the net income after tax. As there were no shares held by the Company on the reporting date or any other special cases, the number of ordinary shares issued equated to the number of shares in circulation.

The calculation of earnings in relation to the weighted average number of shares in accordance with IAS 33 resulted in earnings of €0.32 per share for the period from January 1, 2018 to June 30, 2018, with an average weighted number of shares of 34.7 million and earnings of €0.25 per share for the period from January 1, 2017 to June 30, 2017, with an average weighted number of shares of 34.7 million.

There were no options or conversion options as of the reporting date. Therefore, there were no diluting effects and the diluted and basic earnings per share were the same.

## SELECTED NOTES TO THE SMA GROUP BALANCE SHEET

### 10. Goodwill and Other Intangible Assets

in €'000	2018/06/30	2017/12/31
Goodwill	798	798
Software	2,762	3,584
Patents/licenses/other rights	4,969	5,188
Development projects	40,870	45,295
Intangible assets in progress	20,448	16,066
	<b>69,847</b>	<b>70,931</b>

The intangible assets in progress reflect intensive development activities undertaken to ensure the SMA Group's position as a technology leader.

## 11. Fixed Assets

in €'000	2018/06/30	2017/12/31
Land and buildings	145,562	151,022
Technical equipment and machinery	29,648	31,371
Other equipment, plant and office equipment	25,571	27,761
Prepayments	4,633	2,398
	<b>205,414</b>	<b>212,552</b>

## 12. Inventories

in €'000	2018/06/30	2017/12/31
Raw materials, consumables and supplies	72,707	63,763
Unfinished goods, work in progress	17,768	12,777
Finished goods and goods for resale	113,376	87,598
Prepayments	1,753	845
	<b>205,604</b>	<b>164,983</b>

Inventories are measured at the lower value of the cost of acquisition or sales and net realizable value. In total, impairment as of June 30, 2018, amounted to €34.2 million (December 31, 2017: €25.4 million). The addition to impairment on inventories, included under expenses as cost of sales, amounted to €13.9 million (H1 2017: €2.2 million).

## 13. Other Financial Assets

As of June 30, 2018, other current financial assets in particular include financial assets, time deposits with a term to maturity of over three months and accrued interest totaling €234.6 million (December 31, 2017: €225.4 million). The previous other non-current financial asset of a rent deposit for buildings in the U.S. amounting to \$2.5 million was derecognized as part of an agreement with the landlord.

## 14. Shareholders' Equity

The change in equity, including effects not shown in the income statement, is presented in the Statement of Changes in Equity.

On May 24, 2018, the Annual General Meeting of SMA Solar Technology AG passed a resolution to distribute a dividend for the 2017 fiscal year amounting to €0.35 per qualifying bearer share (2016: €0.26). The payout was made on May 28, 2018.

## 15. Provisions

in €'000	2018/06/30	2017/12/31
Warranties	110,039	136,351
Personnel	4,733	5,095
Other	9,619	14,603
	<b>124,391</b>	<b>156,049</b>

Warranty provisions consist of general warranty obligations (periods of between five and ten years) for the various product areas within the Group. An estimation change due to improved data resulted in a resolution of the general warranty provision of a total of €33.5 million, see 4, Significant Judgements, Estimates and Assumptions. In addition, provisions are set aside for individual cases that are expected to be used in the following year. In the period under review, the provisions for individual case guarantees amounted to €11.3 million.

Personnel provisions mainly include obligations for long-service anniversaries, death benefits and partial retirement benefits. Personnel provisions affect cash in relation to contractual commitments made.

Other provisions include, in particular, restoration obligations and purchase commitments. Provisions in the amount of €7.9 million were reversed in the first half of 2018.

## 16. Financial Liabilities

in €'000	2018/06/30	2017/12/31
Liabilities due to credit institutions	19,072	20,312
Derivative financial liabilities	2,490	411
of which liabilities from derivatives outside of hedge accounting	2,490	411
Liabilities from finance leases	156	97
	<b>21,718</b>	<b>20,820</b>

Liabilities to credit institutions mainly include liabilities for the financing of SMA Immo properties and an SMA AG PV system. They have an average time to maturity of ten years.

Derivative financial liabilities consist of interest derivatives and currency futures and options.

## 17. Other Financial Liabilities

in €'000	2018/06/30	2017/12/31
Sales department liabilities	1,542	4,066
Other	12,143	15,920
	<b>13,685</b>	<b>19,986</b>

## 18. Other Liabilities

in €'000	2018/06/30	2017/12/31
Accrual item for extended warranties	173,535	170,818
Liabilities from prepayments received	33,918	38,949
Liabilities in the Human Resources department	23,483	26,619
Liabilities due to tax authorities	6,163	6,719
Liabilities from bonus agreements	5,534	6,563
Liabilities from subsidies received	744	771
Other	2,109	2,525
	<b>245,486</b>	<b>252,964</b>

The accrual item for extended warranties includes liabilities from chargeable extended warranties granted for products from the Residential and Commercial business units. This item, as well as liabilities from prepayments received and bonus agreements, constitute "Contractual Liabilities" within the meaning of IFRS 15. Liabilities in the Human Resources department contain obligations to employees regarding positive vacation and flextime balances as well as variable salary components and contributions to the workers' compensation association and to social insurance systems. The main items included in the liabilities due to tax authorities are tax liabilities from payroll accounting and value-added tax liabilities. The liabilities from subsidies received relate to taxable government grants from funds of the common-task program "Improvement of the Regional Economic Structure" (EU GA), granted as investment subsidies. The total amount of retransfer of government grants is stated under other operating income.

Liabilities from bonus agreements with customers are also reported.

## 19. Financial Instruments

in €'000	Assessment category accord- ing to IAS 39	Assessment category accord- ing to IFRS 9	2018/06/30 Book value	2017/12/31 Book value
<b>Assets</b>				
Cash and cash equivalents	LaR	AC	170,366	234,853
Trade receivables	LaR	AC	130,787	160,001
Other financial investments	AFS	FVTOCI	2	2
<b>Other financial assets</b>			<b>248,079</b>	<b>248,546</b>
of which institutional mutual funds	FAHfT	FVTPL	121,872	150,230
of which other (time deposits)	LaR	AC	124,676	90,474
of which contractual assets	n/a	AC	42	0
of which derivatives that do not qualify for hedge accounting	FAHfT	FVTPL	1,489	7,842
<b>Liabilities</b>				
Trade payables	FLAC	AC	130,265	130,432
<b>Financial liabilities</b>			<b>21,718</b>	<b>20,820</b>
of which liabilities due to credit institutions	FLAC	AC	19,072	20,312
of which liabilities from finance leases	n/a	AC	156	97
of which derivatives that do not qualify for hedge accounting	FLHfT	FVTPL	2,490	411
<b>Other financial liabilities</b>	FLAC	AC	<b>13,685</b>	<b>19,987</b>
<b>Of which grouped by categories according to IFRS 9/IAS 39:</b>				
Amortized cost	LaR	AC	425,871	485,328
Financial liabilities measured at amortized cost	FLAC	AC	163,178	170,731
Fair value through profit or loss	FAHfT	FVTPL	123,361	158,072
Fair value through profit or loss	FLHfT	FVTPL	2,490	411
Fair value through other comprehensive income	AFS	FVTOCI	2	2

The book values represent reasonable approximations of the fair values of the assets and liabilities, which is why a separate indication of the fair amounts is omitted.

Cash and cash equivalents, trade receivables and time deposits have mainly short terms to maturity. Accordingly, their book values on the reporting date were almost identical to their fair value.

The fair values of other non-current assets correspond to the present values of the payments related to the assets while taking into account current interest parameters, which reflect market- and partner-related changes in conditions and expectations.

Other financial investments relate to investments not included in the scope of consolidation. However, because no active market exists for these investments and a reliable measurement of their fair value was not possible, measurement on the relevant reporting dates was effected at amortized cost of acquisition.

Trade payables and other current financial liabilities normally have short terms to maturity. The recognized values are almost identical to the fair values.

Fair values of other non-current financial liabilities are determined by referring to the present values of the payments associated with the debts. For discounting, term-related commercially available interest rates were used (level 2).

Derivative financial instruments are used to hedge against currency risks arising from operative business. These include currency futures and options outside of hedge accounting. In principle, these instruments are only used for hedging purposes. As is the case with all financial instruments, they are recognized at fair value upon initial recognition. The fair values are also relevant for subsequent measurements. The fair value of traded derivative financial instruments is identical to the market value. This value may be positive or negative. The measurement of forward transactions is based on forward contract rates. Options are measured in line with the Black-Scholes and Heath-Jarrow-Morton option pricing models. The parameters that were used in the valuation models are in line with market data.

In the previous year, the cash flow hedging for certain substantial planned transactions denominated in foreign currency was reported under the derivative financial liabilities with hedge relationship. In the current fiscal year, no market values accounted for in equity were reclassified into the income statement (June 30, 2017: €5.1 million).

The following table shows the allocation of our financial assets and liabilities in the balance sheet at market value to the three levels of the fair value hierarchy:

in €'000

	Level 1	Level 2	Level 3	Total
<b>2018/06/30</b>				
Financial assets, measured at fair value				
Institutional mutual funds	121,872	0	0	121,872
Derivative financial instruments	0	1,489	0	1,489
Financial liabilities, measured at fair value				
Derivative financial instruments	0	2,490	0	2,490
outside of hedge accounting	0	2,490	0	2,490
<b>2017/12/31</b>				
Financial assets, measured at fair value				
Institutional mutual funds	150,230	0	0	150,230
Derivative financial instruments	0	7,842	0	7,842
Financial liabilities, measured at fair value				
Derivative financial instruments	0	411	0	411
outside of hedge accounting	0	411	0	411

## 20. Cash and Cash Equivalents

Cash and cash equivalents amounting to €170.4 million (June 30, 2017: €205.5 million) include cash on hand, bank balances and short-term deposits with an original term to maturity of less than three months.

Cash and cash equivalents, as presented in the Consolidated Statement of Cash Flows as at June 30, 2018, include cash in hand and bank balances of €156.2 million and short-term deposits with a maturity of less than three months of €14.2 million.

## OTHER DISCLOSURES

### 21. Events After the Balance Sheet Date

There were no significant events on or after the balance sheet date other than those presented in or recognizable from the statements in the Notes to the Consolidated Financial Statements.

### 22. Related Party Disclosures

As of the reporting date, the Managing Board of SMA Solar Technology AG comprised the following members: SMA chief executive officer Pierre-Pascal Urbon is responsible for strategy, sales and service. Deputy chief executive officer Dr.-Ing. Jürgen Reinert assumes overall responsibility for operations and technology. Ulrich Hadding is in charge of finance, human resources and legal.

On May 28, 2014, SMA concluded an agreement regarding a close strategic partnership with Danfoss A/S. As part of this partnership, Danfoss acquired a 20% stake in SMA and therefore now also belongs to the group of related entities. SMA entered into a strategic partnership with Danfoss in the areas of purchasing, sales and research and development. SMA also performs services on behalf of Danfoss. All agreements were concluded under fair market conditions.

In addition, SMA has a 28.27% stake in Tigo Energy, Inc.

# RESPONSIBILITY STATEMENT

We assure to the best of our knowledge that, in accordance with the applicable accounting standards for halfyear financial reporting, the Half-Year Consolidated Financial Statements give a fair view of the net assets, financial position and results of operations of the SMA Group and that the Consolidated Interim Management Report gives a fair view of the course of business including the results of operations and the SMA Group's position and describes the fundamental opportunities and risks associated with the expected development of the SMA Group for the remaining months of the fiscal year.

Niestetal, July 31, 2018

SMA Solar Technology AG  
Managing Board

Pierre-Pascal Urbon    Dr.-Ing. Jürgen Reinert    Ulrich Hadding

# AUDITOR’S REPORT

(Translation – the German text is authoritative)

To SMA Solar Technology AG, Niestetal

We have reviewed the Condensed Interim Consolidated Financial Statements – comprising the Condensed Income Statement, Condensed Statement of Comprehensive Income, Condensed Balance Sheet, Condensed Statement of Cash Flows, Condensed Statement of Changes in Equity, and Selected Explanatory Notes – and the Interim Group Management Report of SMA Solar Technology AG, Niestetal, for the period from January 1 to June 30, 2018, which are part of the Half-Yearly Financial Report in accordance with Section 115 of the German Securities Trading Act (Wertpapierhandelsgesetz – WpHG). The preparation of the Condensed Interim Consolidated Financial Statements in accordance with the International Financial Reporting Standards (IFRS) applicable to interim financial reporting as adopted by the EU and of the Interim Group Management Report in accordance with the provisions of the German Securities Trading Act applicable to interim group management reports is the responsibility of the Company’s Managing Board. Our responsibility is to issue a review report on the Condensed Interim Consolidated Financial Statements and on the Interim Group Management Report based on our review.

We have conducted our review of the Condensed Interim Consolidated Financial Statements and the Interim Group Management Report in accordance with the provisions set forth by the Institute of Public Auditors in Germany (Institut der Wirtschaftsprüfer - IDW) for the auditing of financial statements. Those standards require that we plan and perform the review so that we can preclude through critical evaluation, with limited assurance, that the Condensed Interim Consolidated Financial Statements have not been prepared, in all material respects, in accordance with the IFRS applicable to interim financial reporting as adopted by the EU, or that the Interim Group Management Report has not been prepared, in all material respects, in accordance with the provisions of the German Securities Trading Act (WpHG) applicable to interim group management reports. A review is limited primarily to inquiries of company personnel and analytical assessments and therefore does not provide the assurance attainable in a financial statements audit. Since, in accordance with our engagement, we have not performed a financial statement audit, we cannot express an audit opinion.

Based on our review, no matters have come to our attention that cause us to presume that the Condensed Interim Consolidated Financial Statements of SMA Solar Technology AG, Niestetal, have not been prepared, in all material respects, in accordance with the IFRS applicable to interim financial reporting as adopted by the EU or that the Interim Group Management Report has not been prepared, in all material respects, in accordance with the provisions of the German Securities Trading Act applicable to interim group management reports.

Hanover, July 31, 2018

**Deloitte GmbH**

Wirtschaftsprüfungsgesellschaft

(Schwibinger)

German Public Auditor

(Meier)

German Public Auditor



## FINANCIAL CALENDAR

2018/11/08	Publication of Quarterly Statement: January to September 2018 Analyst Conference Call: 09:00 a.m. (CET)
2019/03/28	Publication of Annual Report 2018 Analyst Conference Call: 09:00 a.m. (CET)
2019/05/09	Publication of Quarterly Statement: January to March 2019 Analyst Conference Call: 09:00 a.m. (CET)
2019/05/28	Annual General Meeting 2019
2019/08/08	Publication of Half-Yearly Financial Report: January to June 2019 Analyst Conference Call: 09:00 a.m. (CET)
2019/11/07	Publication of Quarterly Statement: January to September 2019 Analyst Conference Call: 09:00 a.m. (CET)

## REGISTERED TRADEMARKS

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## DISCLAIMER

This Half-Yearly Financial Report includes various forecasts and expectations as well as statements relating to the future development of the SMA Group and SMA Solar Technology AG. These statements are based on assumptions and estimates and may entail known and unknown risks and uncertainties. Actual development and results as well as the financial and asset situation may therefore differ substantially from the expectations and assumptions made. This may be due to market fluctuations, the development of world market prices for commodities, financial markets and exchange rates, amendments to national and international legislation and provisions or fundamental changes in the economic and political environment. SMA does not intend to and does not undertake an obligation to update or revise any forward-looking statements to adapt them to events or developments after the publication of this Half-Yearly Financial Report.

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## CONTACT

SMA Solar Technology AG  
Sonnentallee 1  
34266 Niestetal  
Germany  
Phone: +49 561 9522-0  
Fax: +49 561 9522-100  
[info@SMA.de](mailto:info@SMA.de)  
[www.SMA.de/en](http://www.SMA.de/en)

Investor Relations  
[www.IR.SMA.de/contact](http://www.IR.SMA.de/contact)



**SMA Solar Technology AG**

Sonnenallee 1  
34266 Niestetal  
Germany

Phone: +49 561 9522-0

Fax: +49 561 9522-100

[info@SMA.de](mailto:info@SMA.de)

[www.SMA.de/en](http://www.SMA.de/en)