

SunEdison Semiconductor Ltd  
Form 424B4  
May 23, 2014  
**Table of Contents**

**Filed Pursuant to Rule 424(b)(4)  
Registration No. 333-191052**

**PROSPECTUS**

**7,200,000 shares**

**SunEdison Semiconductor Limited**

**Ordinary Shares**

This is the initial public offering of the ordinary shares of SunEdison Semiconductor Limited. We are selling 7,200,000 of our ordinary shares.

Prior to this offering, there has been no public market for our ordinary shares. Our ordinary shares have been approved for listing on the NASDAQ Global Select Market under the symbol SEMI.

Investing in our ordinary shares involves risks that are described in the **Risk Factors** section beginning on page 16 of this prospectus.

We are an **emerging growth company** as defined in Section 2(a)(19) of the Securities Act of 1933, as amended, or the Securities Act, and, as such, are allowed to provide in this prospectus more limited disclosures than an issuer that would not so qualify. In addition, for so long as we remain an emerging growth company, we will qualify for certain limited exceptions from investor protection laws such as the Sarbanes-Oxley Act of 2002. Please read **Risk Factors Risks Related to this Offering and Ownership of Our Ordinary Shares**. We are an **emerging growth company** and may elect to comply with reduced public company reporting requirements, which could make our ordinary shares less attractive to investors.

	<b>Per Share</b>	<b>Total</b>
Public offering price	\$ 13.00	\$ 93,600,000
Underwriting discounts(1)	\$ 0.8775	\$ 6,318,000
Proceeds, before expenses, to us	\$ 12.1225	\$ 87,282,000

(1) We refer you to Underwriting beginning on page 166 of this prospectus for additional information regarding underwriting compensation.

The underwriters may also exercise their option to purchase up to 1,080,000 additional shares from us at the initial public offering price, less the underwriting discount, for a period of 30 days after the date of this prospectus.

Samsung Fine Chemicals Co., Ltd. and Samsung Electronics Co., Ltd. have agreed to purchase \$93.6 million and \$31.5 million, respectively, of our ordinary shares in separate private placements at a price per share equal to the public offering price. Our parent, SunEdison, Inc., will be our majority shareholder following the completion of this offering and the private placements. Samsung Fine Chemicals Co., Ltd. is a joint venture partner of a subsidiary of SunEdison, Inc. in SMP Ltd. Samsung Electronics Co., Ltd. is one of our customers and our joint venture partner in MEMC Korea Company. As consideration for the issuance of the ordinary shares, Samsung Fine Chemicals Co., Ltd. will make an aggregate cash investment in us of \$93.6 million and Samsung Electronics Co., Ltd. will transfer to us its 20% interest in MEMC Korea Company. These share purchases will close concurrently with this offering. The sale of such shares will not be registered under the Securities Act. The private placements are subject to certain closing conditions. See Prospectus Summary Private Placements and Related Transactions.

**Neither the Securities and Exchange Commission, or SEC, nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

The shares will be ready for delivery on or about May 28, 2014.

**Deutsche Bank Securities  
Macquarie Capital**

**Goldman, Sachs & Co.**

**Wells Fargo Securities  
Citigroup**

The date of this prospectus is May 21, 2014.

**Table of Contents**

Table of Contents

## TABLE OF CONTENTS

	<b>Page</b>
<u>PROSPECTUS SUMMARY</u>	1
<u>RISK FACTORS</u>	16
<u>CAUTIONARY STATEMENT CONCERNING FORWARD LOOKING STATEMENTS</u>	38
<u>ENFORCEMENT OF CIVIL LIABILITIES UNDER UNITED STATES FEDERAL SECURITIES LAWS</u>	38
<u>INDUSTRY AND MARKET DATA</u>	40
<u>USE OF PROCEEDS</u>	42
<u>DIVIDEND POLICY</u>	44
<u>CAPITALIZATION</u>	45
<u>DILUTION</u>	46
<u>UNAUDITED PRO FORMA CONSOLIDATED FINANCIAL STATEMENTS</u>	48
<u>SELECTED HISTORICAL COMBINED FINANCIAL DATA</u>	56
<u>MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	59
<u>BUSINESS</u>	90
<u>MANAGEMENT</u>	103
<u>EXECUTIVE COMPENSATION</u>	110
<u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT</u>	122
<u>CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS</u>	124
<u>DESCRIPTION OF CERTAIN INDEBTEDNESS</u>	137
<u>DESCRIPTION OF SHARE CAPITAL</u>	138
<u>COMPARISON OF SHAREHOLDER RIGHTS</u>	145
<u>SHARES ELIGIBLE FOR FUTURE SALE</u>	157
<u>MATERIAL TAX CONSIDERATIONS</u>	159
<u>UNDERWRITING</u>	166
<u>LEGAL MATTERS</u>	173
<u>EXPERTS</u>	173
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	173
<u>INDEX TO AUDITED AND UNAUDITED COMBINED FINANCIAL STATEMENTS</u>	F-1

**We have not and the underwriters have not authorized anyone to provide you with any information other than that contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We are offering to sell, and seeking offers to buy, our ordinary shares only in jurisdictions where such offers and sales are permitted. The information in this prospectus or any free writing prospectus is accurate only as of its date, regardless of its time of delivery or the time of any sale of shares of our ordinary shares. Our business, financial condition, results of operations and prospects may have changed since that date.**

The name and mark, SunEdison, Inc., and other trademarks, trade names and service marks of SunEdison, Inc. appearing in this prospectus are the property of SunEdison, Inc. Prior to the completion of this offering, SunEdison Semiconductor Limited and other trademarks, trade names and service marks of SunEdison Semiconductor Limited appearing in this prospectus are the property of SunEdison, Inc., and after the completion of this offering, SunEdison Semiconductor Limited and other trademarks, trade names and service marks of SunEdison Semiconductor Limited appearing in this prospectus will be the property of SunEdison Semiconductor Limited. This prospectus also contains additional trade names, trademarks and service marks belonging to SunEdison, Inc. and to other companies. We do

not intend our use or display of other parties' trademarks, trade names or service marks to imply, and such use or display should not be construed to imply, a relationship with, or endorsement or sponsorship of us by, these other parties.

**Table of Contents**

**PROSPECTUS SUMMARY**

*The following is a summary of material information discussed in this prospectus. This summary may not contain all the details concerning our business, our ordinary shares or other information that may be important to you. You should carefully review this entire prospectus, including the Risk Factors section and our financial statements and the related notes included elsewhere in this prospectus, before making an investment decision. As used in this prospectus, unless the context otherwise indicates, the references to (i) our business, we, our or us or similar terms refer to the semiconductor materials business as operated as a business segment of SunEdison, Inc., or SunEdison, for periods prior to the Transactions (as described below in Structure and Formation of Our Company), and to SunEdison Semiconductor Limited, together with, where appropriate, its consolidated subsidiaries, for periods after the completion of the Transactions, and (ii) SSL refer to SunEdison Semiconductor Limited exclusive of its subsidiaries. References in this prospectus to S\$ refer to Singapore dollars. Unless otherwise indicated or the context otherwise requires, the financial and operating data included in this prospectus reflect the combined semiconductor materials business of SunEdison that will be owned by SunEdison Semiconductor Limited after the completion of the Transactions and is otherwise as of March 31, 2014.*

**Our Company**

We are a global leader in the development, manufacture and sale of silicon wafers to the semiconductor industry. Wafers are used as the base substrate for nearly all semiconductor devices, which in turn provide the foundation for the entire electronics industry. Our business was established in 1959 and was known during most of our history as MEMC Electronic Materials, Inc., or MEMC. We have developed a broad product portfolio, an extensive global manufacturing footprint, process technology expertise and supply chain flexibility, while increasing our capital efficiency and maintaining a lean operating culture.

Throughout our over 50 years of operations, we have pioneered a number of semiconductor industry firsts, including the development of the dislocation-free Czochralski, or CZ, silicon crystal growth process and the chemical-mechanical planarization, or CMP, process, as well as the initial production and commercialization of 100mm and 200mm semiconductor wafers. More recently, we have been a leader in the development of advanced substrates such as epitaxial, or EPI, wafers and wafers for the silicon-on-insulator, or SOI, market, which enable advanced computing and communications applications.

We primarily sell our products to all of the major semiconductor manufacturers in the world, including integrated device manufacturers and pure-play semiconductor foundries, and to a lesser extent, leading companies that specialize in wafer customization. During 2013, our largest customers were Samsung, Taiwan Semiconductor Manufacturing Company, or TSMC, and STMicroelectronics. We operate facilities in major semiconductor manufacturing regions throughout the world, including Taiwan, Malaysia, South Korea, Italy, Japan and the United States. We have chosen to locate our manufacturing facilities in regions that offer both low operating costs and close proximity to our customers to facilitate collaboration on product development activities and shorten product delivery times.

The market for semiconductor wafers is large and growing. According to Gartner, Inc., or Gartner, the merchant semiconductor silicon wafer market in 2012 was approximately \$9 billion and in 2013 was approximately \$8 billion worldwide and is expected to grow at a 4.5% compound annual growth rate, or CAGR, from 2013 to 2017, reaching approximately \$9.5 billion by 2017. This growth in semiconductor wafer demand has been largely attributable to the proliferation of mobile devices such as smart phones and tablets. These devices require semiconductors that are energy efficient, low cost, high performance and highly integrated into a small footprint. Semiconductors offering those characteristics increasingly require EPI and SOI wafers. We



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**Table of Contents**

believe that the combination of our process technology expertise in EPI and SOI wafer manufacturing with our capital efficiency provides us with significant opportunities as the markets for EPI and SOI wafers continue to grow.

The semiconductor wafer industry has undergone significant consolidation over the past 20 years, from more than 20 suppliers in the 1990s to only five major suppliers today, including Shin-Etsu Handotai, SUMCO Corporation, Siltronic AG, LG Siltron and us, which suppliers accounted for approximately 90% of all semiconductor wafer sales in 2012, according to Gartner. This consolidation is due in large part to the significant increase in the capital investment and manufacturing capacity needed to compete effectively. We have expanded our market share by revenue from 8% in 2008 to 10% in 2012, according to Gartner. We believe this improvement is in large part the result of our emphasis on technology and product innovation and customer service, as well as consistently delivering high quality wafers that meet our customers evolving requirements. We believe we are well positioned to continue to expand our market share and capitalize on the increasing demand for more advanced wafer products. We generated net sales of \$920.6 million, \$934.2 million and \$1,198.3 million, net (loss) income attributable to SSL of \$(57.7) million, \$121.3 million and \$(557.9) million and Adjusted EBITDA of \$74.6 million, \$74.9 million and \$170.2 million, in 2013, 2012 and 2011, respectively. For the three months ended March 31, 2014 and 2013, we generated net sales of \$206.1 million and \$232.4 million, net loss attributable to SSL of \$14.6 million and \$10.5 million and Adjusted EBITDA of \$15.0 million and \$26.6 million, respectively. See [Summary Historical and Pro Forma Financial Data](#) for the definition of Adjusted EBITDA, the reason for its inclusion and a reconciliation from net (loss) income attributable to SSL to Adjusted EBITDA.

**Industry Overview**

Semiconductor devices are at the core of modern electronics. According to Gartner, the total semiconductor market worldwide was \$315 billion in 2013. These devices include microprocessors, memory, analog, mixed-signal and radio frequency, or RF, integrated circuits, discrete, application specific integrated circuits, microelectromechanical systems, or MEMS, and image sensors. Recent semiconductor growth has been largely attributable to the proliferation of mobile devices, which has driven the need for low cost, high performance semiconductors that provide efficient power consumption and a reduced footprint. In order to meet these demands, technology innovation in the semiconductor industry has continued at a strong pace over the past decade, resulting in shrinking process geometries, larger wafer sizes, more stringent technical specifications and the introduction of advanced substrates and device structures. The continual advancement in the connectivity of everyday devices to the internet, such as home automation, smart grid metering and parking meters, represents a significant growth opportunity in the semiconductor industry. In addition to continued growth in the mobile device and internet connectivity markets, future semiconductor industry growth is expected to be further driven by new and emerging markets and applications, such as in the healthcare and automotive industries, which are increasingly incorporating advanced technologies in their services and products.

Semiconductor wafers are increasingly required to meet specific performance characteristics. For example, semiconductors used in applications such as mobile devices and cloud infrastructure are increasingly requiring EPI wafers, which enable lower power consumption due to their near perfect surface characteristics. According to Gartner, the epitaxial semiconductor silicon wafer market is expected to grow from \$3.0 billion in 2013 to \$3.8 billion in 2017, representing a 6.1% CAGR. Similarly, demand for SOI wafers is growing as a result of the ability of SOI wafers to improve switching speeds and enhance the performance of RF devices such as power amplifiers, switches and sensors. According to the SOI Industry Consortium, the total available market for SOI wafers is expected to double over the next five years, driven by the increased penetration in mobile system-on-chips and RF devices. At the same time, the worldwide polished wafer market is expected to grow by only a 3.9% CAGR from 2013 to 2017, according to Gartner. As a semiconductor wafer manufacturer focused on advanced EPI and SOI product solutions, we believe we are well positioned to capitalize on the growth opportunities resulting from industry consolidation and the increasing



demand for EPI and SOI wafers.

## Table of Contents

### **Our Strengths**

Our strengths as a manufacturer of semiconductor wafers include the following:

***History of product innovation and process technology expertise.*** We have a more than 50 year history, under the MEMC brand, of product innovation, including achieving several major advancements in the semiconductor wafer industry, such as the development of the dislocation-free CZ silicon crystal growth process and the CMP process, as well as the initial production and commercialization of 100mm and 200mm semiconductor wafers. We have developed advanced substrates such as EPI wafers and, more recently, SOI wafers to maintain our history of product innovation. We have also developed significant technology expertise in wafer manufacturing processes, including diamond wire cutting, integrated software-enabled tooling and flexible equipment processes supporting the manufacture of semiconductor wafers with various diameters.

***Broad product portfolio.*** We have developed a broad product portfolio. Our products include polished, EPI, SOI, perfect silicon and magic denuded zone, or MDZ, wafers ranging in diameter from 100mm to 300mm. Our process capabilities provide us with the ability to customize our products to address the specific performance characteristics required by our customers. For example, as one of only three primary SOI wafer suppliers, we are capable of satisfying all of our customers' wafer requirements in microprocessors, memory, analog, mixed-signal and RF integrated circuits, discrete, application specific integrated circuits, MEMS and image sensors.

***Extensive global footprint with close customer collaboration.*** We have an established global manufacturing network consisting of eight facilities located in Taiwan, Malaysia, South Korea, Italy, Japan and the United States. We have located our facilities in areas that offer a combination of low operating costs and highly educated work forces in close proximity to our customers. This local presence enables us to collaborate with our customers on product design and development activities and shorten product delivery and response times. Our diverse global footprint also enables us to mitigate risk in the event of natural disasters or other occurrences that can disrupt manufacturing. We estimate that the cost to replicate our current global manufacturing footprint is approximately 3.5 times the net book value of our fixed assets as of December 31, 2013.

***Established relationships with blue chip customers.*** We work with all of the major semiconductor device manufacturers in the world, including integrated device manufacturers and pure-play semiconductor foundries. Our continued focus on developing strong customer relationships has resulted in several awards from our key customers. For example, we were the only company in 2012 to receive supplier excellence awards from each of Samsung, TSMC and Analog Devices based on our performance, quality, service and support. We also received a supplier excellence award from TSMC in 2013. We collaborate with our customers on their research and development, or R&D, activities, allowing us to develop wafer products that meet their product design expectations rapidly and efficiently.

***Company-wide focus on capital efficiency and maintaining a lean operating culture.*** We have implemented several initiatives since 2009 designed to rationalize our use of resources, optimize those resources for the most attractive market opportunities and manage our production capacity to meet demand efficiently. Our engineers' understanding of both the science and operation of the tools within our factories enables us to streamline equipment controls, software interfaces and operational parameters to improve the productivity of our equipment. We have also designed our manufacturing processes to be flexible and scalable with low to moderate additional capital investment necessary to pursue new opportunities or increase capacity. We continue to focus on improving our equipment productivity through our Overall Equipment Effectiveness program, which has improved our safety, customer satisfaction and on-time delivery and reduced facility disruptions. As evidence of these improvements, from 2010 to 2013 our recordable incidences decreased by approximately 50%, our customer complaints decreased by approximately 70%, our customer on-time delivery improved by 13 percentage points and our facility disruptions

were reduced by over 90%.

## **Table of Contents**

***Experienced management team with extensive expertise.*** Our top eight senior managers average 25 years of relevant experience from multiple segments of the semiconductor industry, having joined us from leading technology companies including General Electric, Intel and Motorola. In addition, we have a large and technologically proficient professional staff with approximately 675 engineers, of whom over 123 focus solely on R&D and approximately 44 have Ph.Ds.

## **Our Business Strategy**

Our goal is to continue to be a market leader and increase our market share in the large and growing semiconductor wafer industry. Key elements of our strategy include:

***Extending our product and process technology leadership.*** We are focused on developing leading edge technologies for the semiconductor wafer market. As our customers' needs evolve with decreasing transistor sizes, increasing degrees of integration and ongoing pressures for cost reduction, the requirements and specifications for semiconductor wafers are also evolving. We are investing in new product and process technologies to be able to offer products with enhanced features, such as flatness, uniformity, resistivity and reduced defects. For example, we are making substantial investments to further our product offerings in 300mm EPI and polished wafers for below 20 nanometer process technologies and in 200mm SOI wafers for wireless applications.

***Increasing our customer penetration and market share.*** We intend to increase our customer penetration and market share by enhancing our global sales, design and technical support organizations and leveraging our broad product portfolio. We are also focused on capitalizing on attractive new opportunities with current and new customers in emerging applications. For example, we are working closely with customers to design product solutions that enable continued transistor scaling and include 3-D transistors and Fully Depleted SOI planar transistors, as well as to address process issues related to the introduction of new materials in wafer fabrication and advanced lithography. In addition, we are developing wafer solutions that enable integration of multiple functions, such as logic, memory and analog, on the same chip.

***Continuing to deliver high quality customer service.*** We intend to continue our increased focus on delivering high quality customer service and manufacturing flexibility by leveraging our local presence that results from our diverse geographic footprint. We are focused on enhancing our established quality assurance programs and dedicated services and support staff in order to continue responding quickly to changing demands and product cycles of our customers.

***Maintaining focus on operational improvements.*** We intend to continue our focus on maintaining a lean operating environment and capital efficiency. We believe our Overall Equipment Effectiveness program and other operational improvements have enabled us to improve lead times across the supply chain, as well as our performance with respect to safety, customer satisfaction and on-time delivery and reduced facility disruptions. These improvements have freed up capacity, reduced costs and significantly improved equipment reliability. Our lean operating structure positions us to add production capacity as needed at low to moderate incremental capital expense by optimizing equipment utilization.

***Capitalizing on the benefits of being an independent entity.*** We believe that being a separately traded public company will enable us to be a more focused business with the ability to target our investment and research initiatives solely on semiconductor wafers. We expect our independence will also allow us to align the interests and incentives of our employees exclusively with the success of our business and better position us for further consolidation in the industry.



## Table of Contents

### **Private Placements and Related Transactions**

Samsung Fine Chemicals Co., Ltd., or Samsung Fine Chemicals, and Samsung Electronics Co., Ltd., or Samsung Electronics, have agreed to purchase \$93.6 million and \$31.5 million, respectively, of our ordinary shares in separate private placements at a price per share equal to the public offering price. Samsung Fine Chemicals is a joint venture partner of a subsidiary of SunEdison in SMP Ltd., or SMP. Samsung Electronics is one of our customers and our joint venture partner in MEMC Korea Company, or MKC. As consideration for the issuance of the ordinary shares, (i) Samsung Fine Chemicals will make an aggregate cash investment in us of \$93.6 million and (ii) Samsung Electronics will transfer to us its 20% interest in MKC. These share purchases will close concurrently with this offering. The private placements are subject to certain closing conditions, including the receipt of applicable regulatory approvals, as described in [Certain Relationships and Related Party Transactions Private Placements and Related Transactions](#).

Throughout this prospectus, we collectively refer to Samsung Fine Chemicals and Samsung Electronics as the Samsung Purchasers and to the foregoing transactions as the Samsung Private Placements.

In connection with the Samsung Private Placements, we have also entered into a wafer purchase and sale agreement with Samsung Electronics. See [Certain Relationships and Related Party Transactions Wafer Purchase and Sale Agreement](#).

Following the completion of the Formation Transactions described below in [Structure and Formation of Our Company](#), including the contribution to us by SunEdison of a 35% interest in SMP, and the Samsung Private Placements, SMP will be owned 35% by us, 50% by a subsidiary of SunEdison and 15% by Samsung Fine Chemicals, and MKC will be 100% owned by us. SMP owns a polysilicon manufacturing facility currently under construction in South Korea and MKC owns a manufacturing facility in South Korea that produces 200mm and 300mm semiconductor wafers. The SMP polysilicon facility is expected to be completed in the second half of 2014. We believe these transactions will create financial and strategic value for us by introducing a source of polysilicon that we partially own, and which we expect will provide competitive prices and reduce the risk of supply interruptions. The Samsung Private Placements will also result in us having 100% ownership and control of the silicon wafer manufacturing capabilities at the MKC manufacturing facility, which we believe will give us additional flexibility to respond quickly to changes in the silicon wafer industry.

In addition, pursuant to an agreement we expect to enter into with Samsung Fine Chemicals and SunEdison in connection with the closing of the Samsung Private Placements, we will be obligated to sell additional ordinary shares having an aggregate value (based on the initial public offering price) of up to 3.5 billion South Korean won, or \$3.4 million at currency exchange rates as of May 8, 2014, to Samsung Fine Chemicals following the closing of the Samsung Private Placements in the event construction costs associated with the SMP facility exceed a specified amount, subject to a cap. The number of additional ordinary shares that we will be obligated to sell to Samsung Fine Chemicals will depend upon the extent to which the actual construction costs exceed 410 billion South Korean won but are less than 430 billion South Korean won, or approximately \$400.8 million to \$420.4 million at currency exchange rates as of May 8, 2014. Assuming currency exchange rates as of May 8, 2014, the maximum number of additional ordinary shares that we will be obligated to sell to Samsung Fine Chemicals is 263,216 ordinary shares. The sale of these shares would not be registered under the Securities Act. See [Certain Relationships and Related Party Transactions Private Placements and Related Transactions](#).



## **Table of Contents**

### **Structure and Formation of Our Company**

#### *Overview*

Prior to the completion of this offering, SSL is a wholly-owned subsidiary of SunEdison. Prior to or simultaneously with the completion of this offering, we and SunEdison will engage in a series of transactions which are designed to transfer the ownership of the semiconductor materials business as currently operated by SunEdison to us, facilitate this offering and enable us to raise necessary capital to pay SunEdison for such asset transfers and repay our existing indebtedness, including intercompany indebtedness and certain trade accounts owed to SunEdison. We collectively refer to the transactions undertaken as part of our initial formation as summarized below throughout this prospectus as the Formation Transactions:

SSL was incorporated as a private limited company in the Republic of Singapore on December 20, 2013 under the name SunEdison Semiconductor Pte. Ltd. Prior to the completion of this offering, SunEdison Semiconductor Pte. Ltd. will convert to a Singapore public limited company to be known as SunEdison Semiconductor Limited. SSL is the ultimate parent company of both SunEdison Semiconductor, LLC, which is our only U.S. operating subsidiary, and our non-U.S. subsidiaries.

In exchange for aggregate consideration consisting of 23.6 million ordinary shares, intercompany notes in an aggregate principal amount of \$290.0 million and the assumption by us of \$336.0 million of liabilities reflected on our balance sheet as of March 31, 2014 (to the extent not subsequently discharged) plus all other liabilities related to the semiconductor materials business, SunEdison has contributed or will contribute, as applicable, the following assets to us:

effective as of December 31, 2013, SunEdison contributed all of the outstanding capital stock of its subsidiaries that own and operate its semiconductor materials business, other than a 40% interest held by a subsidiary of SunEdison in MKC, and all of the assets primarily related to its semiconductor material business held by SunEdison or its subsidiaries to SSL;

in January 2014, SunEdison caused one of its subsidiaries to contribute its 40% interest in MKC to SSL; and

prior to the completion of this offering, SunEdison will contribute to SSL a 35% interest in SMP that SunEdison has agreed to acquire from Samsung Fine Chemicals for a cash purchase price of 140 billion South Korean won, or approximately \$136.9 million at currency exchange rates as of May 8, 2014 (subject to increase based on construction costs calculated prior to the closing of that transaction).

We will enter into transition services, intellectual property licensing, tax sharing and other commercial agreements with SunEdison and certain of its subsidiaries. See [Certain Relationships and Related Party Transactions](#).



We collectively refer to the transactions undertaken to finance the Formation Transactions and otherwise provide us with future liquidity as summarized below throughout this prospectus as the Financing Transactions:

We will use approximately \$0.1 million of net proceeds from this offering, together with \$202.1 million of net proceeds after deducting issuance costs from borrowings under a new senior secured term loan from financial institutions and \$87.3 million of net proceeds after deducting

**Table of Contents**

private placement commissions from the cash investment by Samsung Fine Chemicals in connection with the Samsung Private Placements, to repay in full the intercompany notes issued to SunEdison in connection with the asset transfers contemplated as part of the Formation Transactions.

We will use approximately \$11.1 million of the net proceeds from this offering to repay existing third party indebtedness that we associate with the semiconductor materials business. The third party indebtedness consists of long-term notes bearing a fixed interest rate of 2.2% owed to a bank by our Japanese subsidiary. The notes mature at various times between 2014 and 2017, and the aggregate outstanding principal amount of the notes was \$10.6 million as of March 31, 2014.

We will retain approximately \$72.3 million of net proceeds from this offering as cash on our balance sheet, which will provide us with additional liquidity and flexibility in our capital structure.

We will enter into a new senior secured revolving credit facility with financial institutions that will provide for up to \$50.0 million of borrowings for working capital purposes.

For ease of reference, we sometimes collectively refer to this offering, the Formation Transactions, the Financing Transactions and the Samsung Private Placements throughout this prospectus as the Transactions.

We are pursuing this offering and the other Transactions at the direction of SunEdison. We believe that SunEdison expects that it will be able to use the net proceeds it receives from this offering and related Transactions to accelerate its solar energy development projects. Additionally, we believe SunEdison is undertaking the Transactions in an effort to maximize the value of its businesses by enabling each business to focus on its respective core competencies, key markets and customers, to optimize its capital structure and to enhance its access to capital and provide investors with better transparency into each underlying business. We believe that being a separately traded public company will enable us to: (1) be a more focused business with the ability to target our investment and research initiatives solely on semiconductor wafers; (2) align the interests and incentives of our employees exclusively with the success of our business; and (3) compete more effectively in light of consolidation in the industry. We are entering into the new senior secured term loan and senior secured revolving credit facility in order to provide us with sources of future liquidity for growing our business, as well as to fund a portion of the cash repayment of the intercompany notes issued to SunEdison in connection with the asset transfers contemplated as part of the Formation Transactions.

Upon completion of the Transactions, including the Samsung Private Placements, purchasers of our ordinary shares in this offering will own ordinary shares representing 17.8% of our outstanding ordinary shares (or 19.9% if the underwriters' option to purchase additional shares is exercised in full), SunEdison will own ordinary shares representing 58.3% of our outstanding ordinary shares (or 56.8% if the underwriters' option to purchase additional shares is exercised in full), and the Samsung Purchasers will own ordinary shares representing 23.8% of our outstanding ordinary shares (or 23.2% if the underwriters' option to purchase additional shares is exercised in full).

This offering is conditioned upon the completion of the Samsung Private Placements and our entry into the new senior secured term loan and senior secured revolving credit facility prior to or concurrently with this offering.



**Table of Contents***Sources and Uses of Funds*

The following table illustrates the estimated sources and uses of the funds necessary to complete the Transactions, assuming they were completed as of March 31, 2014. Actual amounts may vary from estimated amounts.

<b>Sources of Funds</b>	<b>Uses of Funds</b>	
	<b>(in millions)</b>	
New senior secured credit facilities: (1)		Cash payment to SunEdison to repay in full
Revolving credit facility	\$	intercompany notes (3) \$ 290.0
Term loan		Repayment of subsidiary bank
	210.0	indebtedness (4) 10.6
Cash investment by Samsung Fine Chemicals (2)	93.6	Cash to balance sheet (5) 72.3
Ordinary shares offered hereby	93.6	Estimated fees and expenses (6) 24.3
<b>Total sources</b>	<b>\$ 397.2</b>	<b>Total uses</b> \$ 397.2

(1) In connection with the Financing Transactions, we intend to enter into new senior secured credit facilities that will include a senior secured revolving credit facility for borrowings of up to \$50.0 million. We do not expect to have any outstanding borrowings under this senior secured revolving credit facility upon completion of this offering. We currently do not have commitments from any prospective lenders with respect to the new senior secured credit facilities but will obtain such commitments prior to the completion of this offering. See Description of Certain Indebtedness New Senior Secured Credit Facilities.

(2) Represents the cash investment by Samsung Fine Chemicals in connection with the Samsung Private Placements.

(3) We will use approximately \$0.6 million of the net proceeds from this offering, together with \$202.1 million of net proceeds after deducting issuance costs from borrowings under our new senior secured term loan and \$87.3 million of net proceeds after deducting private placement commissions from the cash investment by Samsung Fine Chemicals in connection with the Samsung Private Placements, to fund the cash payment to SunEdison to repay in full the intercompany notes. The cash repayment of the notes and the 23.6 million ordinary shares to be issued to SunEdison, together with the assumption by SSL of \$336.0 million of liabilities reflected on our balance sheet as of March 31, 2014 (to the extent not subsequently discharged) plus all other liabilities related to the semiconductor materials business, represent the consideration paid to SunEdison in exchange for the assets of its semiconductor materials business contributed to SSL.

(4) Consists of long-term notes bearing a fixed interest rate of 2.2% owed to the Development Bank of Japan Inc. by our Japanese subsidiary, MEMC Japan Ltd.. The notes mature at various times between 2014 and 2017, and the aggregate outstanding principal amount of the notes was \$10.6 million as of March 31, 2014. We expect this amount as of the anticipated closing date of this offering will be approximately \$11.1 million due to accrued interest, prepayments and changes in foreign currency exchange rates.

- (5) We may use such net proceeds for working capital and other general corporate purposes. See Use of Proceeds. The actual amount of cash that will be retained by us will vary from what is set forth in the table above based on changes in the actual amount of the intercompany notes as of the closing date of this offering.
- (6) The estimated fees and expenses include underwriting discounts and commissions, the unamortized original issuance discount on our new senior secured term loan and our estimated legal, accounting and other expenses associated with the Transactions.

## **Table of Contents**

### **Risk Factors**

There are a number of risks that you should understand before making an investment decision regarding this offering. These risks are discussed more fully in the section entitled "Risk Factors" following this prospectus summary. These risks include, but are not limited to:

our business depends on the semiconductor device industry, and when that industry experiences one of its cyclical downturns, our sales are likely to decrease and we could be forced to reduce our prices without being able to reduce costs, including fixed costs, all of which could materially adversely affect our business, financial condition and results of operations;

if we fail to meet changing customer demands or achieve market acceptance for new products, we may lose customers and our sales could suffer;

a significant reduction in, or loss of, purchases by any of our top customers could materially adversely affect our business, financial condition and results of operations;

semiconductor wafer average selling prices have been volatile in recent years. If we are unable to reduce our manufacturing costs and operating expenses in response to declining prices, we may not be able to compete effectively;

we face intense competition in the industry in which we operate, including from competitors that have a greater market share than we do, which could materially adversely affect our business, financial condition and results of operations;

we are controlled by SunEdison, whose interests may conflict with yours, and this concentrated ownership of our ordinary shares will prevent you and other investors in our shares from influencing significant decisions involving our company; and

we are incorporated in Singapore and our shareholders may have more difficulty in protecting their interests than they would as shareholders of a corporation incorporated in the United States.

### **Corporate Information**

Our principal executive offices are located at 11 Lorong 3 Toa Payoh, Singapore 319579, and our telephone number at that address is +65 6681-9300. Our principal executive offices in the United States are located at 501 Pearl Drive (City of O'Fallon), St. Peters, Missouri 63376, and our telephone number at that address is (636) 474-5000. Our website address upon the completion of this offering will be [www.sunedisonsemi.com](http://www.sunedisonsemi.com). The information on our website is not part of this prospectus.



**Table of Contents**

**The Offering**

**Ordinary shares offered by us** 7,200,000 shares.

**Ordinary shares to be sold to the Samsung Purchasers in the Samsung Private Placements**

9,625,578 shares.

**Ordinary shares to be held by SunEdison immediately after this offering**

23,560,251 shares.

**Ordinary shares to be outstanding immediately after this offering and the Samsung Private Placements**

40,426,175 shares.

**Option to purchase additional shares**

We have agreed to allow the underwriters to purchase up to an additional 1,080,000 ordinary shares from us, at the public offering price, less the underwriting discount, within 30 days of the date of this prospectus.

**Use of proceeds**

We estimate that the net proceeds from this offering to us will be approximately \$83.5 million, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We expect to use the net proceeds from this offering for the following purposes and in the following amounts:

approximately \$0.1 million will be used to provide a portion of the cash payment to SunEdison to repay in full the intercompany notes issued in connection with the Formation Transactions;

approximately \$11.1 million will be used to repay existing third party indebtedness relating to the semiconductor materials business owed to a bank by our Japanese subsidiary; and



approximately \$72.3 million will be retained as cash on our balance sheet.

The remaining portion of the cash payment to SunEdison of \$289.4 million to repay in full the intercompany notes issued in connection with the Formation Transactions will be funded from \$202.1 million of net proceeds after deducting issuance costs from borrowings under our new senior secured term loan and \$87.3 million of net proceeds after deducting private placement commissions from the cash investment by Samsung Fine Chemicals in connection with the Samsung Private Placements.

**Table of Contents**

**Dividend policy**

We do not currently anticipate declaring or paying any cash dividends on our ordinary shares for the foreseeable future. Any future determination relating to our dividend policy will be made at the discretion of our board of directors and will depend on then existing conditions, including our financial condition, results of operations, contractual restrictions (including in the agreements governing our credit facilities), capital requirements, business prospects and other factors our board of directors may deem relevant. In addition, pursuant to Singapore law and our articles of association, no dividends may be paid except out of our profits. See Dividend Policy.

**Proposed listing symbol**

Our ordinary shares have been approved for listing on the NASDAQ Global Select Market under the symbol SEMI.

Unless otherwise indicated, all information in this prospectus relating to the number of our ordinary shares to be outstanding immediately after this offering:

assumes no exercise by the underwriters of their option to purchase up to 1,080,000 additional ordinary shares from us;

excludes an aggregate of 11,000,000 ordinary shares reserved for issuance under the equity incentive plans we intend to adopt in connection with this offering, including an aggregate of 794,871 shares underlying equity awards to be granted to certain of our executive officers in connection with the completion of this offering as discussed in Executive Compensation Our Anticipated Executive Compensation Program Following this Offering IPO Grants ;

assumes the issuance and sale of an aggregate of 9,625,578 ordinary shares to the Samsung Purchasers in the Samsung Private Placements; and

assumes the issuance of 40,346 shares to Mr. Ahmad Chatila, the President and Chief Executive Officer and a director of SunEdison in connection with an agreement between Mr. Chatila and SunEdison pursuant to which Mr. Chatila elected to receive an aggregate number of our ordinary shares equal in value to \$1,000,000 at the initial public offering price (before required tax withholdings) in lieu of SunEdison paying him that amount in cash as part of his 2013 annual bonus.

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**Table of Contents****SUMMARY HISTORICAL AND PRO FORMA FINANCIAL DATA**

The following table shows summary historical and pro forma financial data at the dates and for the periods indicated. The summary historical statement of operations data and balance sheet data as of December 31, 2013 and 2012 and for the years ended December 31, 2013, 2012 and 2011 have been derived from our audited combined financial statements included elsewhere in this prospectus. The summary historical statement of operations data and balance sheet data as of March 31, 2014 and for the three months ended March 31, 2014 and 2013 have been derived from our unaudited combined financial statements included elsewhere in this prospectus, which include all adjustments, consisting of normal recurring adjustments, which management considers necessary for a fair presentation of the financial position and the results of operations for such periods. Results for the interim periods are not necessarily indicative of the results for the full year. The historical financial statements as of December 31, 2013 and 2012, for the years ended December 31, 2013, 2012 and 2011, as of March 31, 2014 and for the three months ended March 31, 2014 and 2013 are intended to represent the financial results of SunEdison's semiconductor materials business that will be contributed to us as part of the Transactions for those periods.

The summary unaudited pro forma financial data have been derived by the application of pro forma adjustments to our historical combined financial statements included elsewhere in this prospectus. The summary unaudited pro forma statements of operations for the year ended December 31, 2013 and for the three months ended March 31, 2014 give effect to the Transactions (as described under Prospectus Summary Structure and Formation of Our Company ), including the completion of this offering and the Samsung Private Placements and the application of the estimated net proceeds therefrom, as if they had occurred on January 1, 2013. The summary unaudited pro forma as adjusted balance sheet data as of March 31, 2014 give effect to the Transactions, including the completion of this offering and the Samsung Private Placements and the application of the estimated net proceeds therefrom as if they had occurred on March 31, 2014. See Unaudited Pro Forma Consolidated Financial Statements for additional information.

Our historical combined financial statements include expenses of SunEdison that were allocated to us for certain functions, including general corporate expenses related to communications, corporate administration, finance, legal, information technology, human resources, compliance, employee benefits and incentives, operations, research and development and stock compensation. These expenses were allocated in our historical results of operations on the basis of direct usage, where identifiable, with the remainder primarily allocated on the basis of revenue or other related sales metrics, headcount or number of our manufacturing plants. We consider the expense allocation methodology and results to be reasonable for all periods presented. However, these allocations may not necessarily be indicative of the actual expenses we would have incurred as an independent publicly traded company during the periods prior to this offering or of the costs we will incur in the future. No significant restructuring or impairment charges were included in these allocations from SunEdison.

The combined financial statements included in this prospectus may not be indicative of our future performance and do not necessarily reflect what our financial position and results of operations would have been had we operated as a stand-alone public company during the periods presented, including changes that will occur in our operations and capital structure as a result of the Transactions, including this offering. The summary unaudited pro forma financial data are presented for informational purposes only. The pro forma adjustments are based upon available information and certain assumptions that we believe are reasonable. The summary unaudited pro forma financial information does not purport to represent what our results of operations or financial position would have been if we operated as a public company during the periods presented and may not be indicative of our future performance.

The information presented in the following table under the columns identified as Pro Forma and Pro Forma As Adjusted and the caption Other Financial Data is not directly derived from the financial statements.



**Table of Contents**

The following tables should be read together with, and are qualified in their entirety by reference to, the historical combined financial statements and the accompanying notes appearing elsewhere in this prospectus. Among other things, the historical combined financial statements include more detailed information regarding the basis of presentation for the information in the following table. The tables should also be read together with Unaudited Pro Forma Consolidated Financial Statements, Management's Discussion and Analysis of Financial Condition and Results of Operations and Certain Relationships and Related Party Transactions.

	Fiscal Year Ended December 31,				Three Months Ended March 31,		
	2013	Pro Forma 2013 (unaudited)	2012	2011	2014 (unaudited)	Pro Forma 2014 (unaudited)	2013 (unaudited)
	(in millions, except per share data)						
<b>Statement of Operations</b>							
Net sales to non-affiliates	\$ 911.5	\$ 911.5	\$ 927.4	\$ 1,051.3	\$ 205.8	\$ 205.8	\$ 231.1
Net sales to affiliates	9.1	9.1	6.8	147.0	0.3	0.3	1.1
Cost of goods sold	838.9	838.9	852.4	1,023.3	197.8	197.8	209.9
Gross profit	81.7	81.7	81.8	175.0	8.3	8.3	22.2
Operating expenses:							
Marketing and administration	105.1	105.1	100.7	129.9	21.8	21.8	22.1
Research and development	37.0	37.0	33.4	38.2	8.0	8.0	9.1
Restructuring (reversals)	(75.0)	(75.0)	(149.6)	284.5	(4.6)	(4.6)	(4.6)
Impairment charges in on receipt of property, plant and equipment			(31.7)				
Long-lived asset impairment charges	33.6	33.6	1.5	234.7			