INVESTOR OVERVIEW

August 6, 2020



First Solar®

LEADING THE WORLD'S
SUSTAINABLE ENERGY FUTURE

IMPORTANT INFORMATION

Cautionary Note Regarding Forward Looking Statements

This presentation contains forward-looking statements which are made pursuant to safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements in this presentation, other than statements of historical fact, are forward-looking statements. These forward-looking statements include, but are not limited to, statements concerning: our business strategy, including anticipated trends and developments in and management plans for our business and the markets in which we operate; the withdrawal of our financial guidance for 2020, future financial results, operating results, net sales, revenues, cost of goods sold, gross margin, gross margin percentage, operating expenses, operating income, earnings per share, net cash balance, capital expenditures, products, product improvements, efficiency, projected costs (including estimated future module collection and recycling costs), warranties, shipments, bookings, booking opportunities, backlog, deliveries, sales, supply, production, nameplate manufacturing capacity, solar module technology and cost reduction roadmaps, restructuring, product reliability, photovoltaic ("PV") market growth and competitiveness, installed PV capacity growth, comparative levelized cost of energy, investments in unconsolidated affiliates, and capital expenditures; our ability to continue to reduce the cost per watt of our solar modules (and the impact of drivers to reduce such costs); our ability to expand manufacturing capacity worldwide; our ability to reduce the costs to construct PV solar power systems; research and development ("R&D") programs, the impact of our copper replacement program; sales and marketing initiatives; the impact of U.S. tax reform; senior leadership changes and their effect on the Company's future growth; and competition. These forward-looking statements are often characterized by the use of words such as "estimate," "expect," "anticipate," "project," "plan," "intend," "seek," "believe," "forecast," "foresee," "likely," "may," "should," "goal," "target," "might," "will," "could," "predict," "continue" and the negative or plural of these words and other comparable terminology. Forward-looking statements are only predictions based on our current expectations and our projections about future events and therefore speak only as of the date of this presentation. You should not place undue reliance on these forward-looking statements. We undertake no obligation to update any of these forward-looking statements for any reason, whether as a result of new information, future developments or otherwise. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to differ materially from those expressed or implied by these statements. These factors include, but are not limited to: the severity and duration of the COVID-19 pandemic, including its potential impact on the Company's business, results of operations and financial condition; structural imbalances in global supply and demand for PV solar modules; the market for renewable energy, including solar energy; our competitive position and other key competitive factors; reduction, elimination, or expiration of government subsidies, policies, and support programs for solar energy projects; the impact of public policies, such as tariffs or other trade remedies imposed on solar cells and modules; our ability to execute on our long-term strategic plans; our ability to execute on our solar module technology and cost reduction roadmaps; our ability to improve the wattage of our solar modules; interest rate fluctuations and both our and our customers' ability to secure financing; the creditworthiness of our offtake counterparties and the ability of our offtake counterparties to fulfill their contractual obligations to us; the ability of our customers and counterparties to perform under their contracts with us; the satisfaction of conditions precedent in our agreements; our ability to attract new customers and to develop and maintain existing customer and supplier relationships; our ability to successfully develop and complete our systems business projects; our ability to convert existing production facilities to support new product lines, such as Series 6 module manufacturing; general economic and business conditions, including those influenced by U.S., international, and geopolitical events; environmental responsibility, including with respect to cadmium telluride ("CdTe") and other semiconductor materials; claims under our limited warranty obligations; changes in, or the failure to comply with, government regulations and environmental, health, and safety requirements; effects resulting from pending litigation; future collection and recycling costs for solar modules covered by our module collection and recycling program; our ability to protect our intellectual property; our ability to prevent and/or minimize the impact of cyber-attacks or other breaches of our information systems; our continued investment in R&D; the supply and price of components and raw materials, including CdTe; our ability to attract and retain key executive officers and associates; and the matters discussed under the captions "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" of our most recent Annual Report on Form 10-K, and our subsequently filed Quarterly Reports on Form 10-Q, as supplemented by our other filings with the Securities and Exchange Commission. You should carefully consider the risks and uncertainties described in these reports.

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CORPORATE OVERVIEW

FIRST SOLAR AT A GLANCE

Over **25GW** of solar modules shipped worldwide since Company founding

Global manufacturing footprint in the United States, Vietnam and Malaysia

Balanced business model of **growth, liquidity & profitability**

Differentiated technology, manufacturing process and balance sheet

Long term vision to excel in **technology & cost leadership**

Leading the world's **sustainable energy future**

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INVESTMENT THESIS

Market Opportunity

- In the next five years, installed PV capacity globally is expected to double(1)
- Unsubsidized utility-scale solar has a lower levelized cost of energy compared to conventional generation including coal, nuclear, and natural gas peaking plants(2)
- Our Series 6 technology, product roadmap, and research and development are all key differentiators which we believe will enable us to meaningfully participate in this wave of demand for clean and affordable energy

First Solar Advantage

- Differentiated Cadmium Telluride (CdTe) thin-film technology with superior temperature coefficient and spectral response yielding an energy advantage in many climates
- Proprietary manufacturing process which enables production of a CdTe module in a matter of hours and utilizes less than 2% of the amount of semiconductor material that is used to manufacture conventional crystalline silicon solar panels
- Market leading Series 6 product, with an approximate 12 GW contracted backlog for deliveries in 2020 through 2023
- Strong balance sheet which enables investment in disruptive technology roadmap







(1) EIA 'Renewables 2019'; (2) Lazard Levelized Cost of Energy Analysis – Version 13.0 (November 2019)

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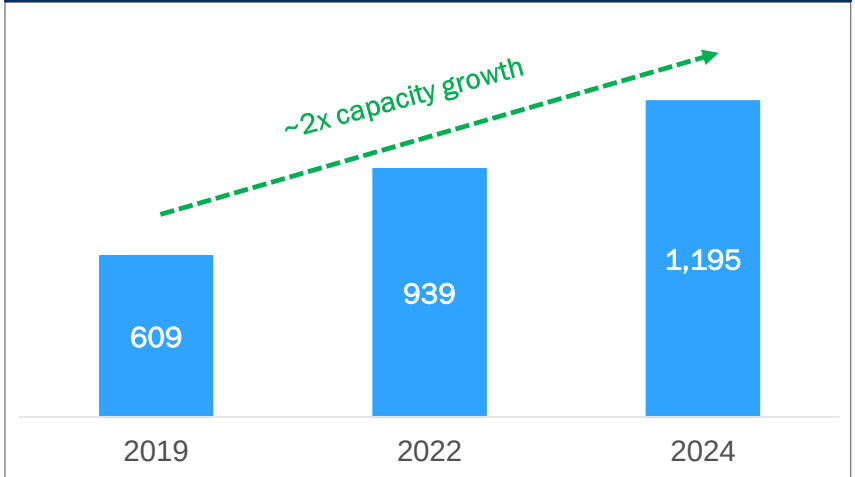
PV MARKET GROWTH AND COMPETIVENESS

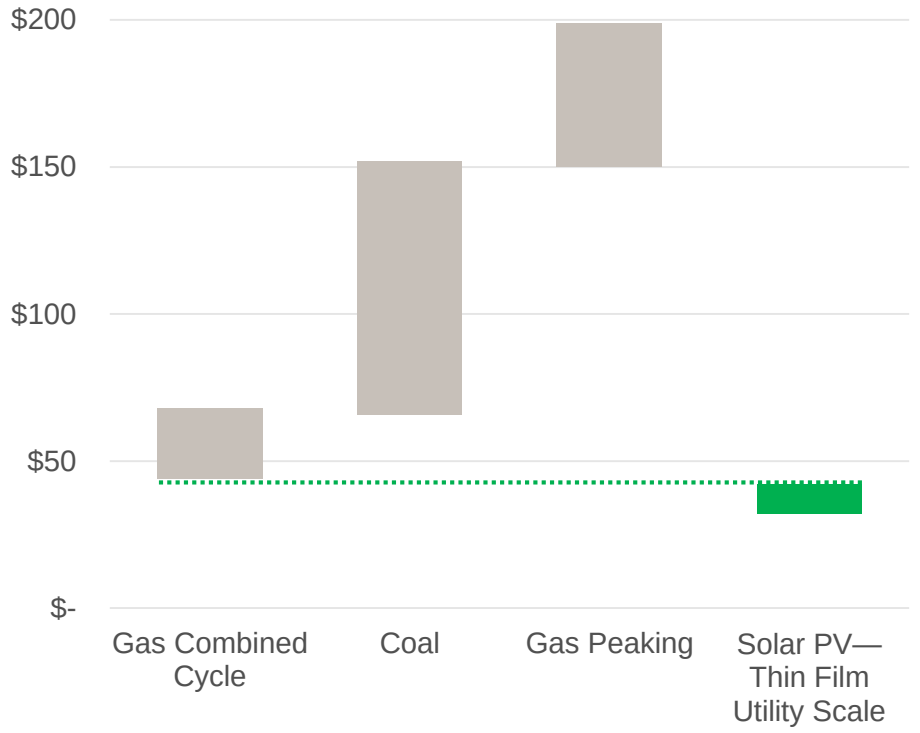
Cumulative Global Installed PV Capacity(1)



Cost Competiveness – A Driver of Growth

- Unsubsidized utility-scale solar has a **lower levelized cost** of energy compared to conventional generation including coal, nuclear and natural gas peaking plants(2)

Levelized Cost of Energy ($/MWh)(2)



(1) EIA 'Renewables 2019'; (2) Lazard Levelized Cost of Energy Analysis – Version 13.0 (November 2019)

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BUSINESS SEGMENTS

Manufacturing

- **Series 6:** Anticipate 2020 production of approximately 5.7 GW
- **Series 4:** Achieved 2020 production target of 0.2 GW: production ended, company transitioned fully to Series 6

Module Sales

- Direct module sales presence in the United States, Western Europe, India, Latin America, Brazil, Middle East, Japan, and Australia

Project Development (1,2)

- Multi-GW project development pipeline across the United States and Japan
- Evaluating strategic options for U.S. project development business; launched strategic process in June 2020

Operations and Maintenance

- Signed an agreement in July to sell the North American O&M business to NovaSource Power Services, a portfolio company of Clairvest Group
- Transaction expected to close by YE'20

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(1) Announced exit of the U.S. EPC business and transition to a third-party execution model in Q3'19; (2) From time to time, we may temporarily own and operate, or retain interests in, certain of our systems projects for a period of time based on strategic opportunities or market factors

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MANUFACTURING AND TECHNOLOGY ADVANTAGES

FIRST SOLAR MANUFACTURING ADVANTAGE

First Solar Fully Integrated, Automated and Continuous Thin Film Process

GLASS → Semi-conductor Deposition → Cell Definition → Final Assembly & Test → First Solar MODULE

Several Hours

1 Factory

- Large glass substrate vs. individual Si wafers
- Fully integrated, continuous process
- 98% less semiconductor material vs Si
- Quality controlled under one roof
- Link: Manufacturing Process Video

Polysilicon → Output Ingot → Output Wafer → Output Solar Cell → Output Module











< 3 DAYS

4+ Factories

Crystalline Silicon Wafer Based Batch Technology

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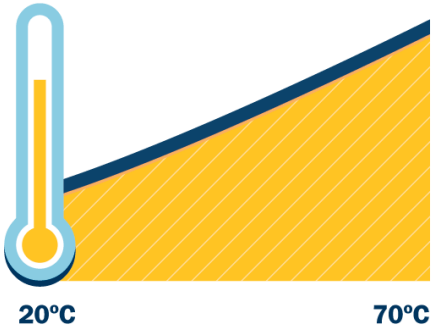
SPECIFIC ANNUAL ENERGY YIELD ADVANTAGE
(RELATIVE TO FRAMED BSF AND PERC, MULTI AND MONO)

SUPERIOR TEMPERATURE **COEFFICIENT**



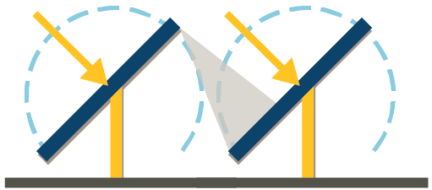
UP TO 3%
MORE THAN C-Si
IN HOT CLIMATES

BETTER SPECTRAL **RESPONSE**



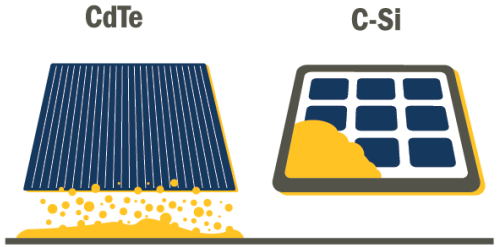
UP TO 4%
MORE THAN C-Si
IN HUMID CONDITIONS

TRUE-TRACKING **ADVANTAGE**



1%
MORE THAN C-Si
ON TRACKERS

REDUCED SOILING & BETTER SNOW-SHEDDING



BETTER
PERFORMANCE
THAN C-Si

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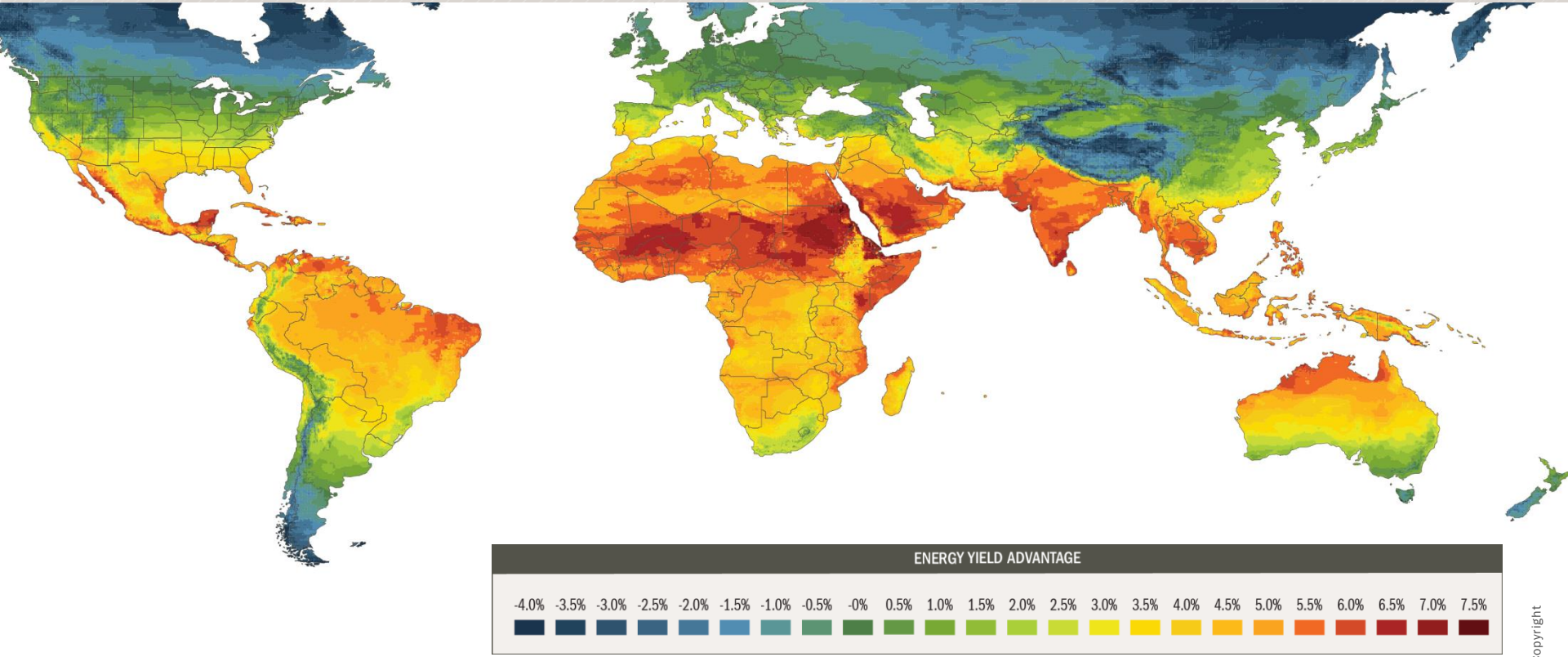
ENERGY YIELD ADVANTAGE VS. C-SI(1)



Powered by:

PLANTPREDICT

(1) Assumes monofacial c-Si PV technology

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PROVIDING THE LEADING ECO-EFFICIENT PV TECHNOLOGY



proven energy advantage



economically competitive with fossil fuel



lowest environmental impacts

- Validated by 3rd party research and global peer reviews
- Higher energy yields at a competitive cost
- Fastest energy payback time < 1 year
- Carbon footprint of First Solar PV modules is up to six times lower than conventional crystalline silicon modules
- Series 6 modules use up to 400 times less water per kWh than conventional energy and up to 24 times less water than other PV technologies
- Industry leading PV recycling program

Creating **More Value** with **Less Environmental Impact**

Source: Seitz et al., Eco-Efficiency Analysis of Photovoltaic Modules, Bavarian State Ministry of Environment and Health, 2013; M. de Wild-Scholten, Energy Payback Time and Carbon Footprint of Commercial Photovoltaic Systems, Solar Energy Materials & Solar Cells 119, 296-305, 2013; Fthenakis and Kim. Life cycle uses of water in U.S. electricity generation. Renewable and Sustainable Energy Reviews vol. 14, pp. 2039–2048, 2010.

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SECOND QUARTER 2020 UPDATES AS OF AUGUST 6, 2020

MODULE SEGMENT UPDATE

Fleet-wide Performance Metrics

- 3.5 GW of year-to-date production, including 3.3 GW of Series 6
- Over 100% fleet-wide capacity utilization during May, June, and July
- 15.9 MWs produced per day and 96.4% manufacturing yield during July
- 435 average watts per module and 98% ARC bin distribution from 430 to 440 during July

Factory Specific Updates

- International Series 6 factories are tracking towards their previously demonstrated capacity utilization peak of 120% of initial design nameplate
- Ohio factories experienced 2.5 days of idle production in June due to railway logistics constraints resulting in a delay of certain bill of material supply
- Second Malaysia Series 6 factory on track to commence production in Q1'21. International travel restrictions for third-party equipment installers and U.S. based FSLR associates remains a risk

Supply Chain and Logistics

- Supply chain diversity has minimized disruptions from third-party vendors
- Shipping routes have consolidated resulting in some capacity constraints
- Port congestion has recently improved in Europe and the United States

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SYSTEMS SEGMENT UPDATE

Systems Sales	▪ Completed the sale of the 123MWac American Kings project during the second quarter
U.S. Project Development Business	▪ Launched strategic process in June
O&M	▪ Original entrance into O&M was an extension of utility-scale solar development and EPC capabilities ▪ With the transition to a third-party EPC execution model, the increasing maturity of the U.S. solar O&M market, and our evaluation of strategic options for our U.S. project development business, the strategic thesis behind O&M has changed ▪ Further business optimization would require increased scale, product offerings, and capital ▪ Received a compelling unsolicited offer to acquire the North American O&M business ▪ Signed an agreement to sell the North American O&M business to NovaSource Power Services, a portfolio company of Clairvest Group Inc. ▪ Upon closing of this transaction, which is expected by year end, approximately 220 First Solar O&M associates are expected to join the NovaSource platform

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EXECUTIVE LEADERSHIP UPDATE

- Markus Gloeckler has been appointed Co-Chief Technology Officer alongside Raffi Garabedian, our CTO since 2012, and will join First Solar's executive leadership team
- Markus will drive our Series 6 platform, device, and efficiency improvement roadmap. This will enable Raffi to focus on advanced research and development to create the next disruptive CadTel technology beyond Series 6
- We have previously announced that Tymen deJong, our Chief Operating Officer, has decided to retire effective April 2021. Tymen will continue to serve as COO during his eight-month transition period, overseeing certain priority projects
- During this transition period, Tymen will transfer the majority of his responsibilities to (1) Mike Koralewski, Chief Manufacturing Operations Officer; (2) Kuntal Kumar Verma, Chief Manufacturing Engineering Officer; and (3) Pat Buehler, Chief Quality and Reliability Officer, each of whom will join First Solar's executive leadership team
- We believe the additions of Markus, Mike, Kuntal and Pat to the executive leadership team will enhance our manufacturing, technical, and commercial capabilities, and set the Company up for continued growth

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MANUFACTURING, COST AND TECHNOLOGY OUTLOOK

MANUFACTURING, COST AND TECHNOLOGY OUTLOOK

Manufacturing

- Only American company and only alternative to c-Si technology among the 10 largest solar module manufacturers globally – reduces over-reliance on imported and government subsidized modules from China
- Incremental capacity expansion may further diversify our manufacturing presence beyond the United States, Malaysia, and Vietnam

Cost

- Vietnam manufacturing sites achieved our mid-term cost-per-watt target of a 40% Series 6 cost reduction relative to 2016 Series 4 costs, Malaysia factory on track to achieve this by YE 2020
- On track for a 10% annual cost-per-watt reduction by YE 2020, supported by strong manufacturing execution

Technology

- Near-term objectives focused on implementing CuRe in lead-line during 2H'21 and fleet-wide during 2022 Current implementation strategy is focused on minimizing COVID-19 and technical risks
- Copper replaced Series 6 module has enabled bookings in 2022 and 2023 with attractive ASPs
- Mid-term objectives remain focused on achieving a 500 watt module, which is a standard test condition glass area efficiency of 20.8%
- Unlike recent increases in c-Si module sizes, this wattage increase is expected to be driven by a 15% increase in energy density without an increase to the module form factor
- We expect the benefits of improved temperature coefficient and reduced long-term degradation, coupled with a continued spectral response advantage, will increase the lifecycle energy benefit beyond 15%

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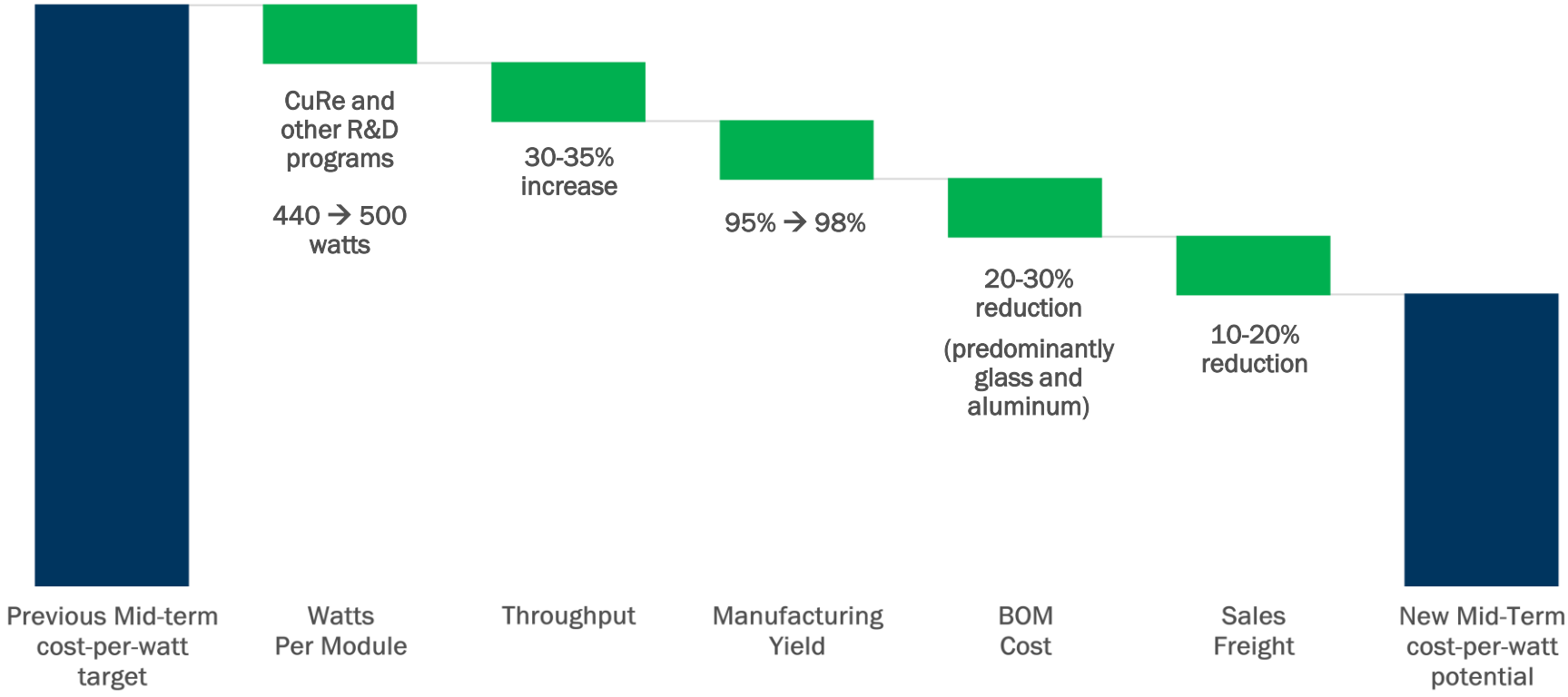
INDICATIVE DRIVERS OF LONG-TERM MODULE COST REDUCTION



Note: Not to scale

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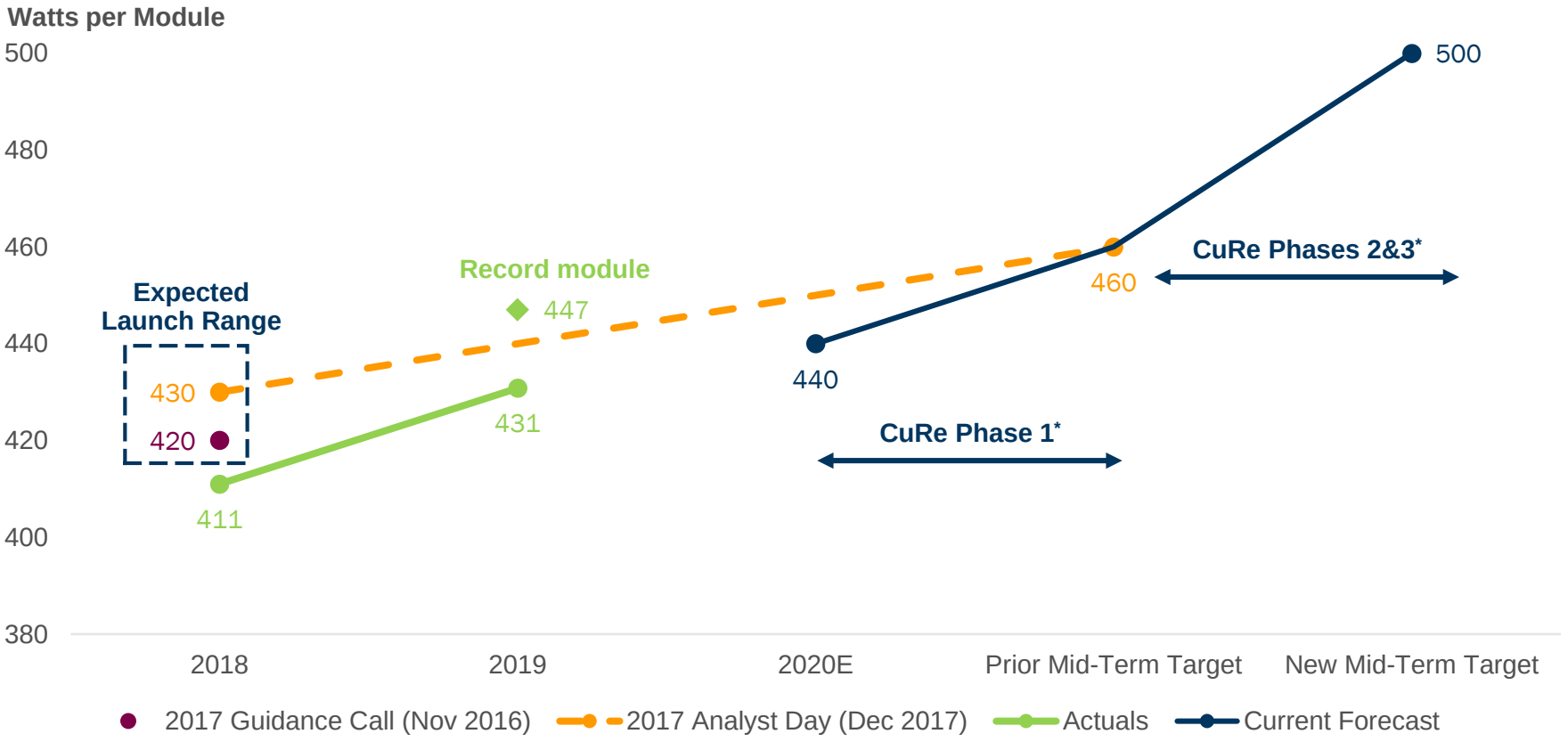
SERIES 6 EFFICIENCY ROADMAP



Note: Actuals represents fleet average year end exit rate
* = Forecast improvements inclusive of all R&D program, primarily driven by CuRe Phases 1-3

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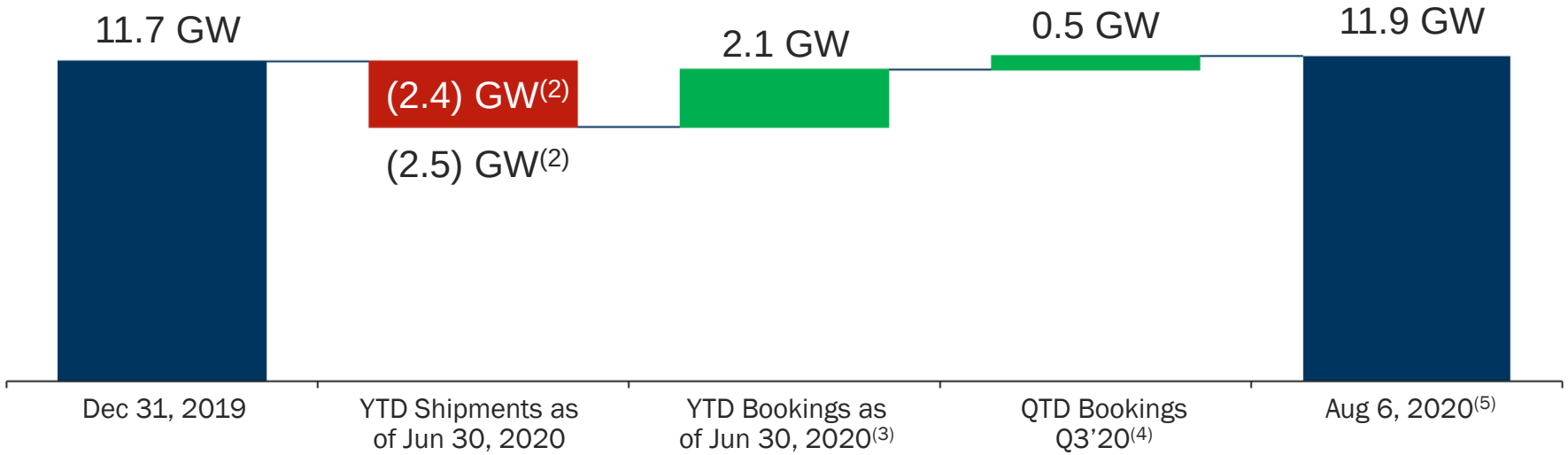
BOOKINGS, FINANCIALS & GUIDANCE
AS OF AUGUST 6, 2020

EXPECTED MODULE SHIPMENTS[1] (GW_{DC}): SYSTEMS + THIRD-PARTY MODULE



The above table presents the actual module shipments for 2020 through Jun 30, 2020, new module volume bookings through Aug 6, 2020, and the expected module shipments beyond Jun 30, 2020. A module is considered to be shipped when it leaves one of our manufacturing plants. Expected module shipments do not have a direct correlation to expected revenues as expected module shipments do not represent total systems revenues and do not consider the timing of when all revenue recognition criteria are met, including timing of module installation.

(1) Expected Module Shipments includes systems projects and contracted 3rd party module-only sales. Systems projects include (a) under sales agreement, (b) executed PPA not under sales agreement, and (c) no PPA and not under sales agreement, but electricity to be sold on an open contract basis.

(2) 2.4 GW of net shipments deducted from backlog; 0.1 GW of 2.5 GW total shipments shipped to safe harbor the U.S. investment tax credit for future systems projects.

(3) Reflects bookings from Jan 1, 2020 to Jun 30, 2020.

(4) Reflects bookings from Jul 1, 2020 to Aug 6, 2020.

(5) Balance includes remaining shipment volumes as of Jun 30, 2020 and bookings through Aug 6, 2020. Shipments from Jul 1 to Aug 6, 2020 not deducted.

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QUARTERLY INCOME STATEMENT HIGHLIGHTS

(In millions, except per share amounts)	Q2 2020A	Q1 2020A	Q2 2019A	QoQ Change	YoY Change
Net sales	**$642**	**$532**	**$585**	**$110**	**$57**
Gross profit %	*21.4%*	*17.0%*	*13.2%*	*4.4%*	*8.2%*
Selling, general and administrative	52	59	51	(7)	1
Research and development	22	26	24	(3)	(2)
Production start-up	6	4	10	2	(4)
Litigation loss	6	-	-	6	6
Operating income (loss)	**51**	**2**	**(9)**	**49**	**59**
Income tax (expense) benefit	(10)	89	(12)	(99)	2
Net income (loss)	**37**	**91**	**(19)**	**(54)**	**55**
Net income (loss) per share - diluted	**0.35**	**0.85**	**(0.18)**	**(0.50)**	**0.53**

Note: Actual, QoQ, and YoY amounts rounded to the nearest million

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QUARTERLY BALANCE SHEET HIGHLIGHTS

(In millions)	Q2 2020A	Q1 2020A	Q2 2019A	QoQ Change	YoY Change
Cash and marketable securities[(1)]	$1,642	$1,598	$2,141	44	(499)
Accounts receivable[(2)]	352	411	397	(60)	(46)
Inventories (current and noncurrent)	703	662	736	41	(33)
Balance of systems parts	35	45	92	(10)	(57)
Property, plant and equipment, net	2,324	2,244	2,006	80	318
PV solar power systems, net	466	471	305	(5)	161
Project assets - current and noncurrent	382	389	530	(7)	(148)
Total assets	**7,073**	**6,949**	**7,138**	**123**	**(65)**
Long-term debt - current and noncurrent	465	472	481	(8)	(17)
Total liabilities	**1,846**	**1,780**	**2,003**	**65**	**(157)**
Total stockholders' equity	**5,227**	**5,169**	**5,135**	**58**	**92**

Note: Actual, QoQ and YoY amounts rounded to the nearest million
(1) Cash, cash equivalents, marketable securities, and restricted cash; (2) Includes accounts receivable trade, net & accounts receivable, unbilled and retainage, net

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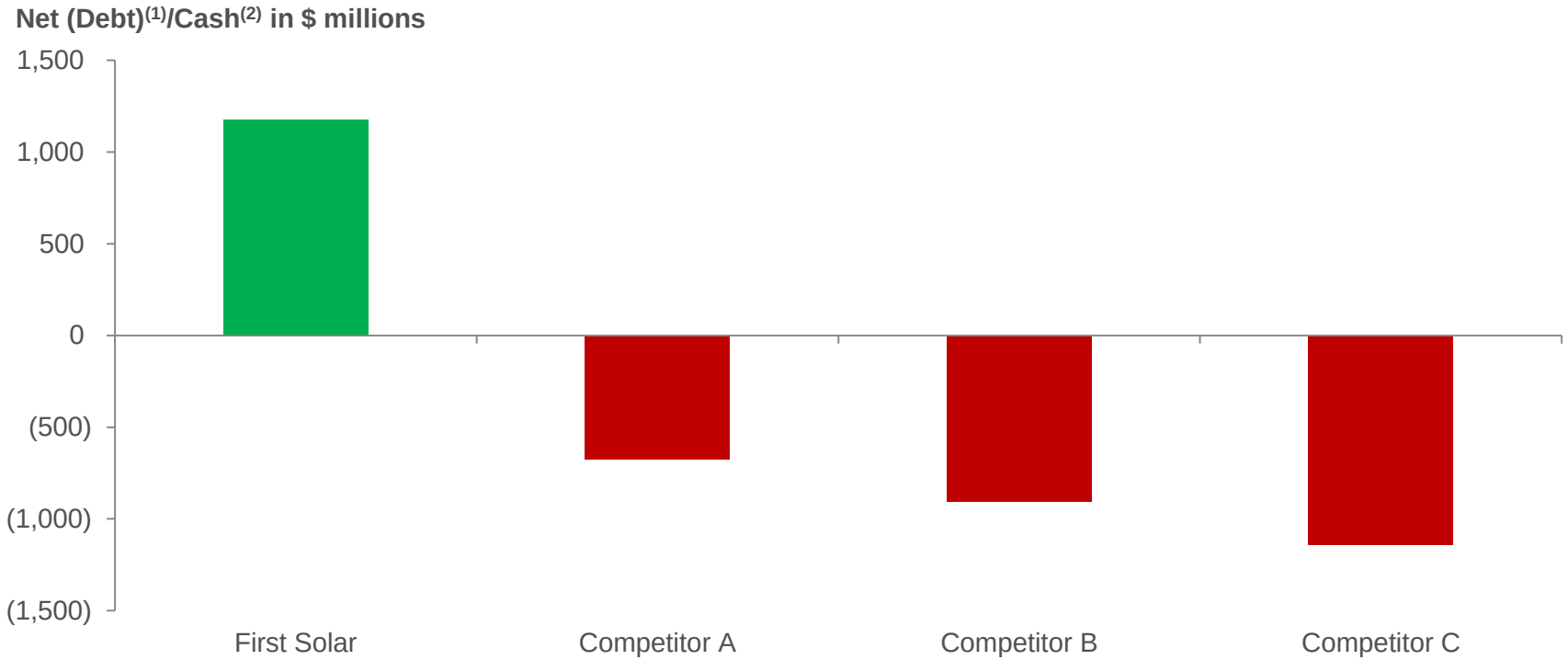
INDUSTRY LEADING BALANCE SHEET | U.S. LISTED COMPETITORS



	First Solar	Competitor A	Competitor B	Competitor C
Net Interest Income / (Expense)(3)	$16.1mm	($39.0M)	($64.5M)	($57.2M)

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Note: 'Net (Debt) / Cash' and 'Net Interest Income / (Expense)' are based on latest quarterly financial filings as of 8/7/2020; (1) Debt includes current portion of long-term debt, long-term debt and convertible debt; (2) Cash includes cash, cash equivalents, marketable securities and restricted cash; (3) Last twelve months based on latest quarterly financial filings as of as of 8/7/2020

2020 GUIDANCE AS OF AUGUST 6, 2020

Guidance Rationale

- Previously withdrew full-year 2020 guidance given the significant uncertainties regarding COVID-19
- The number, intensity, and trajectory of COVID-19 cases has differed across cities, states and countries
- Certain local, state, and national governments have reduced COVID-19 related restrictions. As case rates have increased in certain regions, some governments have re-imposed restrictions on travel and business
- Port congestion in the United States and Europe has recently improved, but shipping capacity remains constrained
- Tax equity and debt markets appear intact for quality 2020 projects; however, 2021 tax equity commitments and a path towards an ITC direct pay solution remain uncertain

Current 2020 Guidance

- Full year production of 5.9 GW is unchanged, which includes 0.2 GW of Series 4, and 5.7 GW of Series 6
- Series 6 manufacturing capacity plans are unchanged. Expect to spend $450 to $550 million of capex
- Operating expenses of $345 to $365 million increased by $5 million, which includes a revised $45 to $55 million range for production start-up expenses
- Anticipate module segment gross margin improvement during the third and fourth quarters of 2020
- At this time, we do not expect to draw on our revolving credit facility

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