INVESTOR OVERVIEW

May 7, 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, 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; 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; 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, including the opt-out action against us; 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.

2020 © Copyright First Solar, Inc.

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**

2020 © Copyright First Solar, Inc.

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 over 12 GW contracted backlog for deliveries in 2020 through 2023
- Strong Balance sheet which enables investment in disruptive technology roadmap





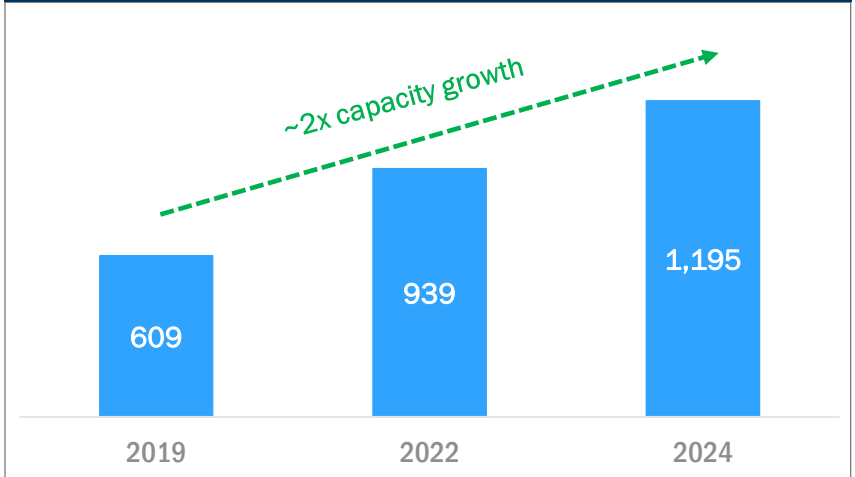


(1) EIA 'Renewables 2019'; (2) Lazard Levelized Cost of Energy Analysis – Version 13.0 (November 2019)

2020 © Copyright First Solar, Inc.

PV MARKET GROWTH AND COMPETIVENESS

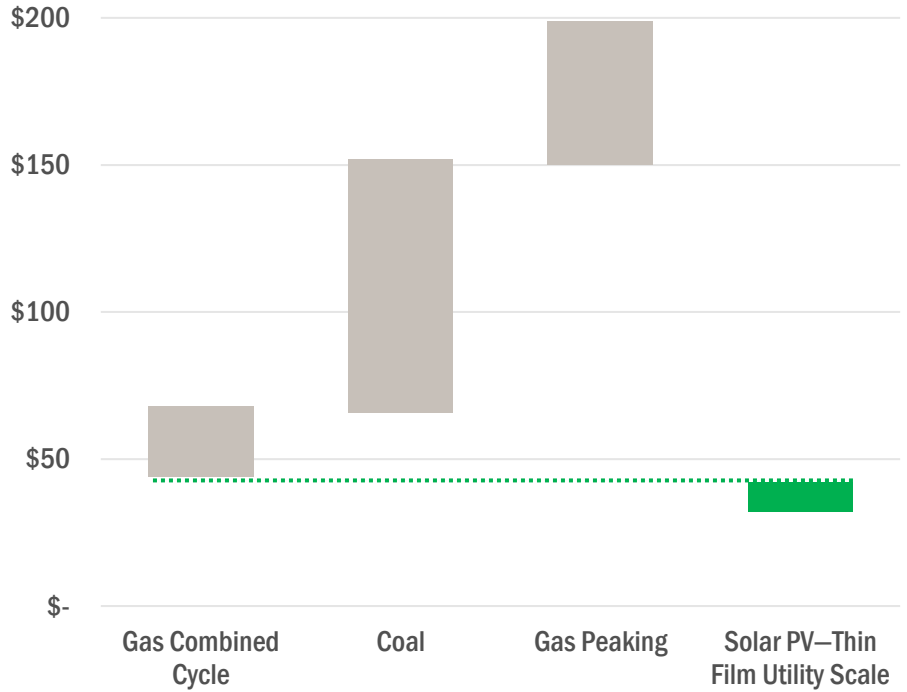
Cumulative Global Installed PV Capacity(1)



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)



2020 © Copyright First Solar, Inc.

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

BUSINESS SEGMENTS

Manufacturing

- **Series 6:** Anticipate 2020 production of approximately 5.7 GW
- **Series 4:** 0.2 GW produced in Q1 2020: production ended, company transitioned fully to Series 6

Module Sales

- Direct 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

Operations and Maintenance

- 12 GW of self-developed and 3rd party projects under contract
- One of the world's largest solar O&M providers

2020 © Copyright First Solar, Inc.

(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

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

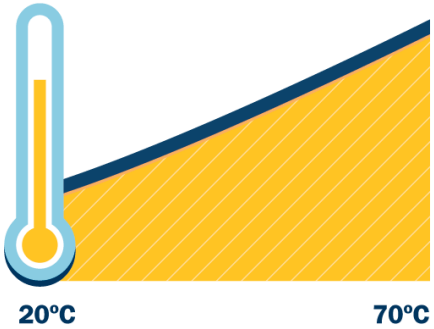
4+ Factories

Crystalline Silicon Wafer Based Batch Technology

2020 © Copyright First Solar, Inc.

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

SUPERIOR TEMPERATURE **COEFFICIENT**



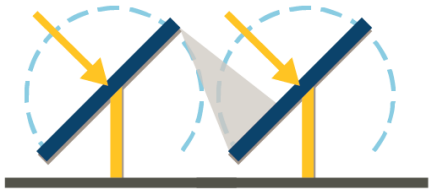
UP TO 3%
MORE THAN C-Si
IN HOT CLIMATES

BETTER SPECTRAL **RESPONSE**



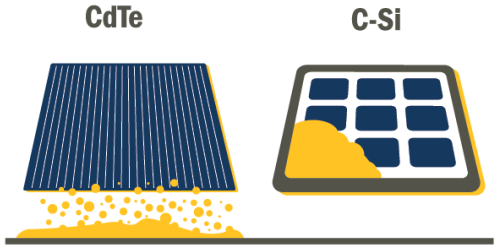
UP TO 4%
MORE THAN C-Si
IN HUMID CONDITIONS

TRUE-TRACKING **ADVANTAGE**



1%
MORE THAN C-Si
ON TRACKERS

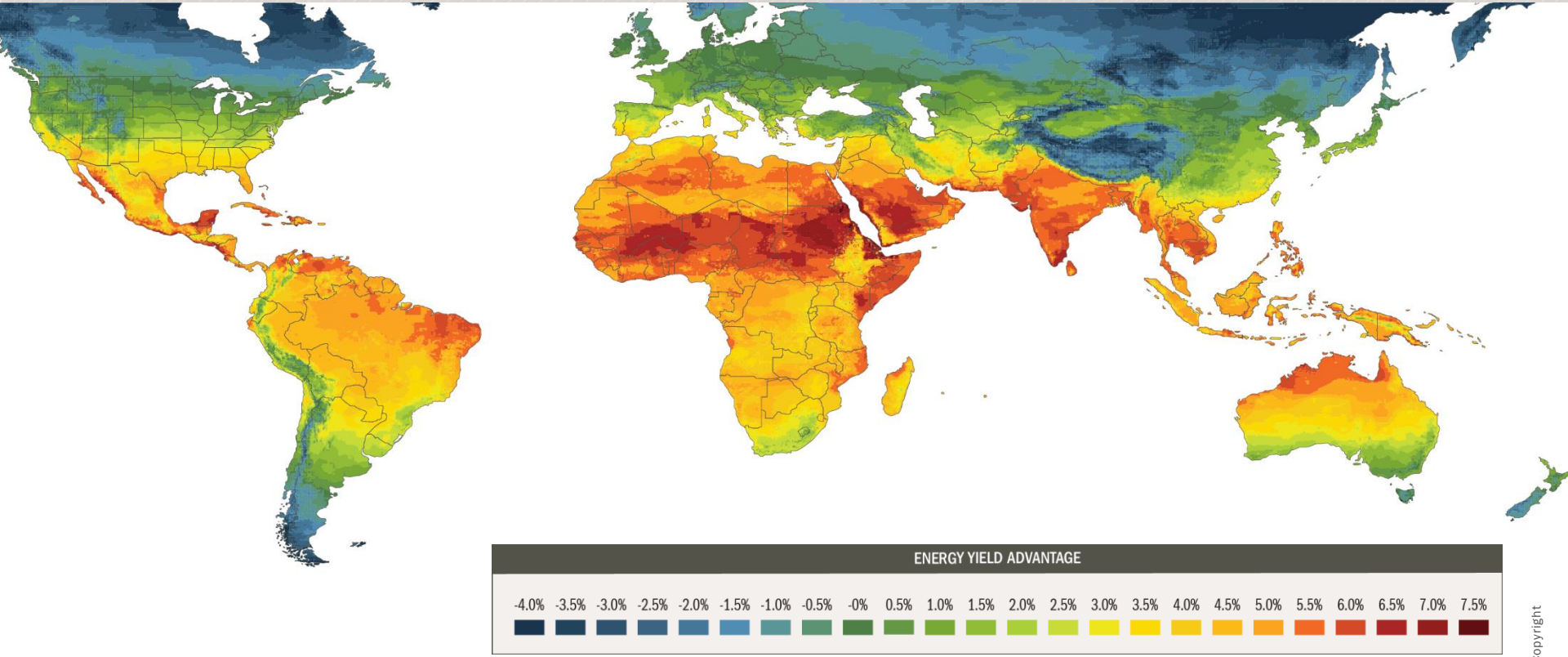
REDUCED SOILING & BETTER SNOW-SHEDDING



BETTER
PERFORMANCE
THAN C-Si

2020 © Copyright First Solar, Inc.

ENERGY YIELD ADVANTAGE VS. C-SI(1)



Powered by:

PLANTPREDICT

(1) Assumes monofacial c-Si PV technology

2020 © Copyright

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.

2020 © Copyright First Solar, Inc.

First Solar®

COVID-19 RESPONSE AND UPDATE AS OF MAY 7, 2020

FIRST SOLAR'S RESPONSE TO COVID-19

Safety is the #1 Priority

- Strive to protect the well-being of our associates, customers, and partners
- Ensure that our technology is safely manufactured and delivered to our customers
- Majority of our office-based associates are working from home

Manufacturing Operations

- Stringent health and safety measures implemented at each manufacturing facility
- Temperature screenings, facemask requirement, increased sanitization, and social distancing protocols
- Implemented strict limitations on third-party visitors to our offices and manufacturing sites

Deliver to Stakeholders

- Continue to balance our top priority of safety with delivering value to each of our stakeholders
- Our associates' dedication and commitment to safety enables us to meet this objective

2020 © Copyright First Solar, Inc.

BUSINESS AND OPERATIONS UPDATE

Module Segment

- Series 6 manufacturing in Ohio, Malaysia, and Vietnam has continued throughout the COVID-19 pandemic
- Ohio 2 operated at approximately 75% capacity in late-March and April due to reduced labor availability
- Series 6 factories in Malaysia and Vietnam operated at over 100% capacity utilization through March and April
- Accelerating Series 4 transition
- Strong supply chain partnerships have minimized disruptions to raw material supplies
- Experiencing some transportation delays due to consolidation of shipping routes and port congestion
- Continuing to collaborate with customers and providing solutions to challenges in the current environment

Systems Segment

- Evaluating potential to utilize virtual meetings to satisfy local permitting requirements
- Three power purchase agreements signed for projects in Tennessee, California, and Texas with a diverse set of utility, CCA, and corporate offtakers
- Projects under construction experiencing some labor and balance of system part availability constraints
- Experiencing delays in project sales in the United States, Japan, and India due to disruptions in business operations for our development and financing partners
- Continue to safely operate our O&M business using remote monitoring, analytics and predictive maintenance

2020 © Copyright First Solar, Inc.

SELECT COVID-19 DYNAMICS IMPACTING OUTLOOK

Reasons for Optimism

- ✓ Economic catalysts for driving increased utility-scale solar penetration continue to grow
- ✓ Series 6 capacity expansion plans unchanged led by 12.3 GW contracted backlog
- ✓ CuRe program and mid-term 500 Watt module target unchanged
- ✓ Unlevered corporate capital structure a competitive advantage in times of both economic prosperity and uncertainty
- ✓ Diverse manufacturing footprint in the United States, Malaysia, and Vietnam

Risks

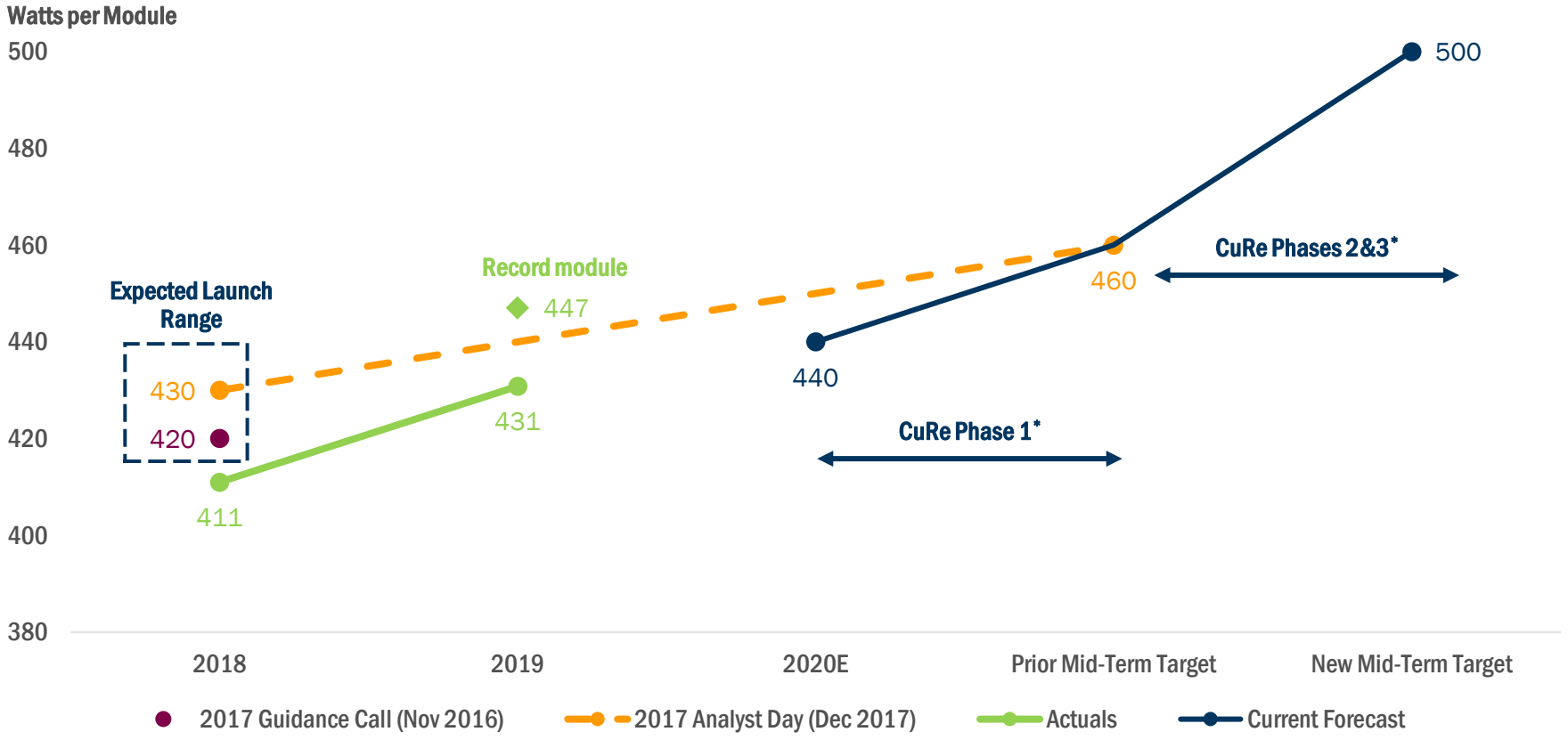
- ○ Economic disruption and impact on near term utility-scale solar demand
- ○ Continued competition across the crystalline silicon PV value chain
- ○ International competitors continue to expand capacity despite open order books
- ○ Disruptions in the capital markets could impact the sales of contracted assets in the United States, India, and Japan
- ○ Further shipping route consolidation and increased port congestion could constrain capacity to transport finished modules

2020 © Copyright First Solar, Inc.

First Solar®

TECHNOLOGY AND COST ROADMAP

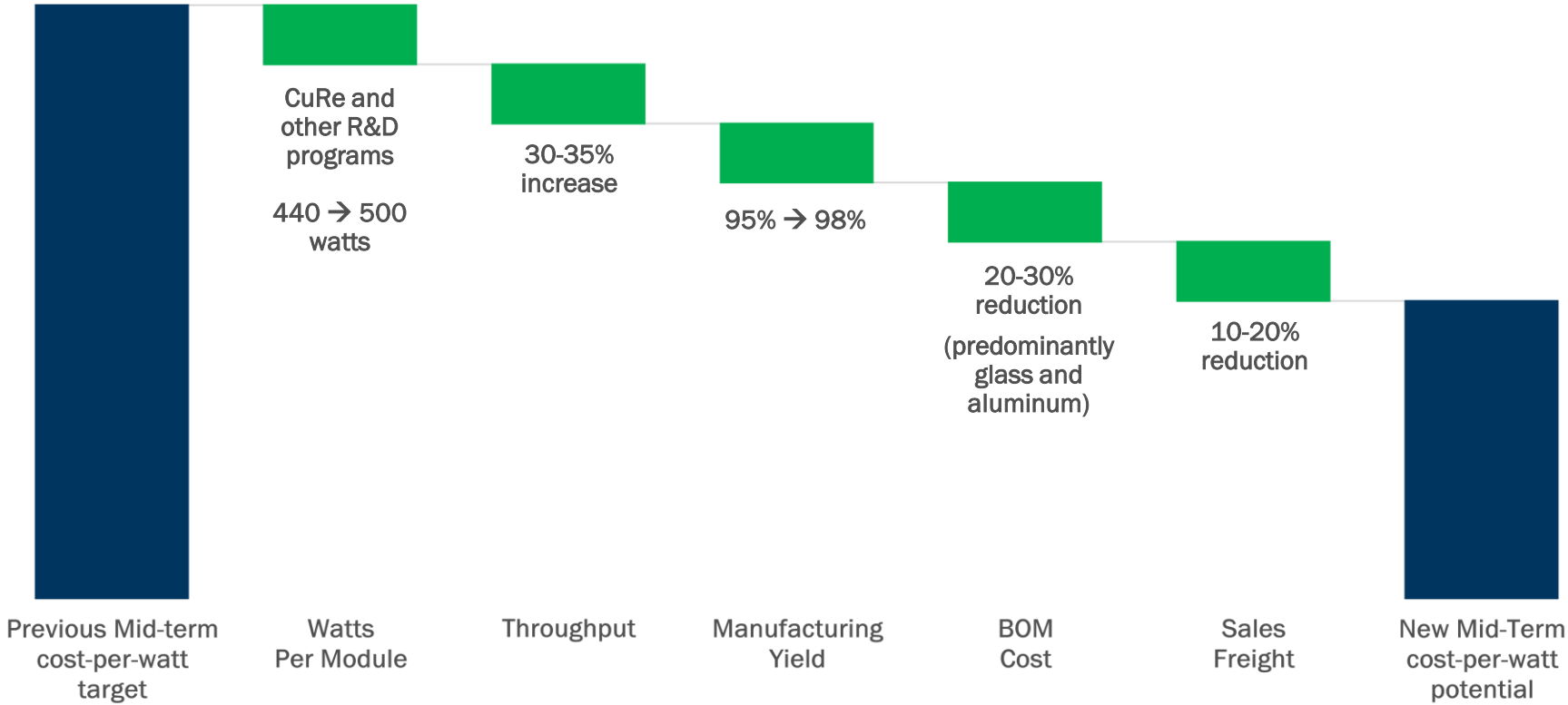
SERIES 6 EFFICIENCY ROADMAP



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

2020 © Copyright First Solar, Inc.

INDICATIVE DRIVERS OF MODULE COST REDUCTION

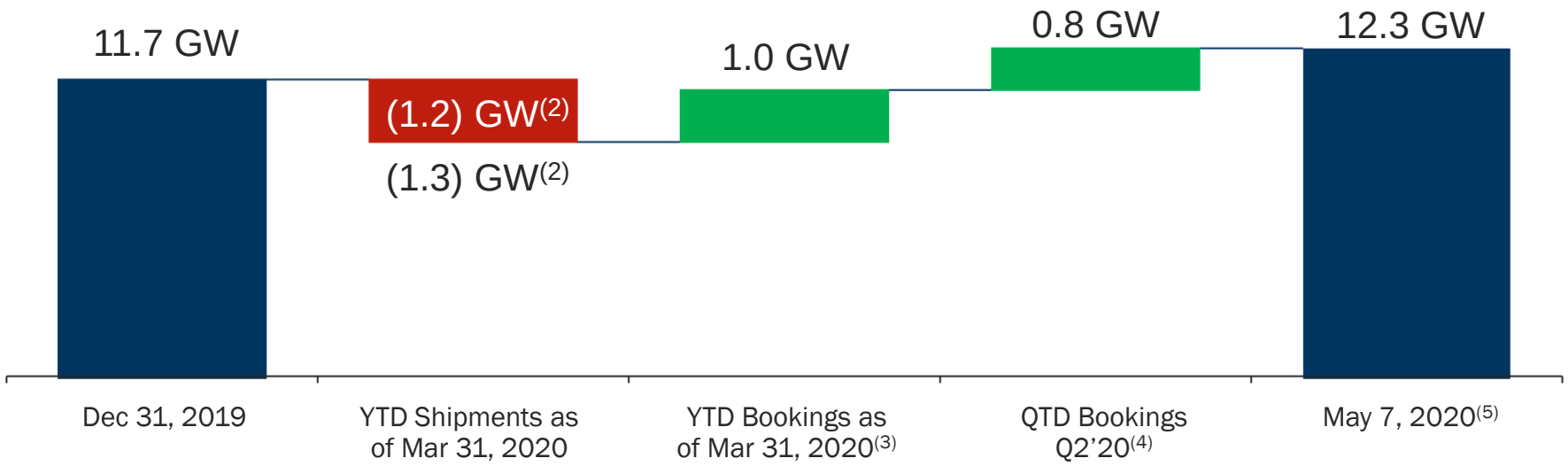


Note: Not to scale

2020 © Copyright First Solar, Inc.

BOOKINGS, FINANCIALS & GUIDANCE
AS OF MAY 7, 2020

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



The above table presents the actual module shipments for 2020 through Mar 31, 2020, new module volume bookings through May 7, 2020, and the expected module shipments beyond Mar 31, 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) 1.2 GW of net shipments deducted from backlog; 0.1 GW of 1.3 GW total shipments shipped to safe harbor the U.S. investment tax credit for future systems projects.

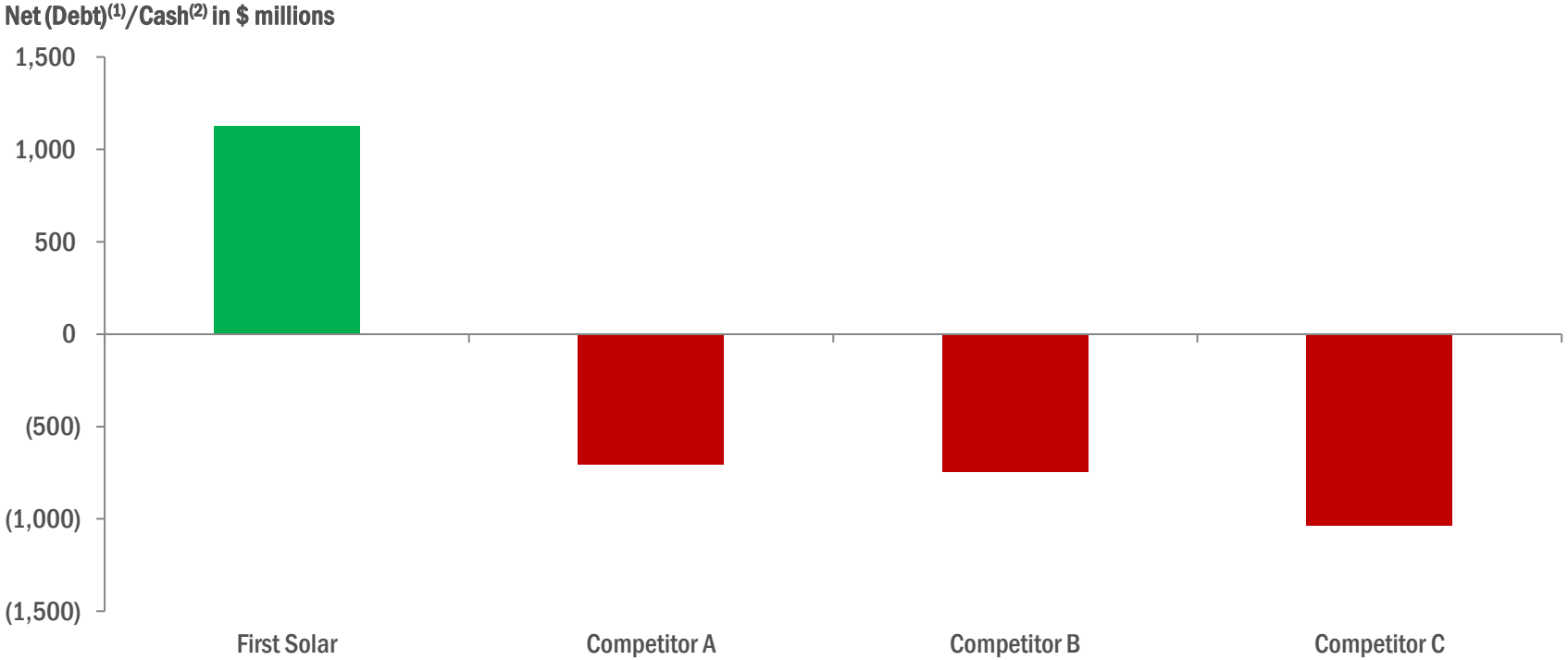
(3) Reflects bookings from Jan 1, 2020 to Mar 31, 2020.

(4) Reflects bookings from Apr 1, 2020 to May 7, 2020.

(5) Balance includes remaining shipment volumes as of Mar 31, 2020 and bookings through May 7, 2020. Shipments from Apr 1 to May 7, 2020 not deducted.

2020 © Copyright First Solar, Inc.

INDUSTRY LEADING BALANCE SHEET



	First Solar	Competitor A	Competitor B	Competitor C
Net Interest Income / (Expense)(3)	$20.2mm	($44.8M)	($69.3M)	($56.2M)

2020 © Copyright First Solar, Inc.

Note: 'Net (Debt) / Cash' and 'Net Interest Income / (Expense)' are based on latest quarterly financial filings as of May 14, 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 May 14, 2020

2020 OUTLOOK AS OF MAY 7, 2020

Withdrawal of Previous 2020 Guidance

- To date, the Company and its financial results have not been materially impacted by COVID-19
- However, we are withdrawing our full-year 2020 guidance given the significant uncertainties regarding COVID-19 including:
- Severity and duration of the virus
- Response of local, state, and national governments
- Impacts to third-party supply production
- Volatility in the capital markets
- Transportation markets constraints
- Efforts of governments to gradually reopen economies

New 2020 Guidance

- Providing limited guidance for metrics that we believe are largely within our control at this time
- Anticipate full year production of 5.9 GW, 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
- Expect operating expenses of $340 to $360 million (including $50 to 60 million of start-up expenses)
- Continue to work with advisors to determine optimal path and timing for U.S. development strategic process
- At this time, do not expect to draw on our revolving credit facility

2020 © Copyright First Solar, Inc.



LEADING THE WORLD'S
SUSTAINABLE ENERGY FUTURE