FIRST SOLAR 2017 GUIDANCE CALL

November 16, 2016

First Solar®

IMPORTANT INFORMATION

Forward Looking Statements

This presentation contains forward-looking statements which are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include statements, among other things, concerning effects on our financial statements and guidance resulting from certain module manufacturing changes and associated restructuring activities; our business strategy, including anticipated trends and developments in and management plans for our business and the markets in which we operate; future financial results, operating results, revenues, gross margin, operating expenses, products, projected costs (including estimated future module collection and recycling costs), warranties, solar module efficiency and balance of systems cost reduction roadmaps, restructuring, product reliability, investments in unconsolidated affiliates and capital expenditures; our anticipated module shipments; our anticipated bookings opportunities by stage and geography; our ability to continue to reduce the cost per watt of our solar modules; our ability to reduce the costs to construct photovoltaic solar power systems; research and development programs and our ability to improve the conversion efficiency of our solar modules; our ability to expand manufacturing capacity worldwide; sales and marketing initiatives; 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. The forward-looking statements in this presentation are based on current information and expectations, are subject to uncertainties and changes in circumstances, and do not constitute guarantees of future performance. Those statements involve a number of factors that could cause actual results to differ materially from those statements, including the risks as described in First Solar, Inc.'s ("First Solar" or the "Company") most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and other filings with the Securities and Exchange Commission. First Solar assumes no obligation to update any forward-looking information contained in this presentation or with respect to the announcements described herein.

Non-GAAP Financial Measures

This presentation includes the presentation and discussion of certain financial information that differs from what is reported under generally accepted accounting principles in the United States ("GAAP"). These non-GAAP financial measures include non-GAAP guidance for earnings per fully diluted share ("EPS"), operating expenses, operating income and effective tax rate. See the Appendix for a reconciliation of each of these non-GAAP financial measures to its most directly comparable GAAP measure and further information regarding such measures. Investors and other readers should consider non-GAAP measures only as supplements to, not as substitutes for or superior to, measures of financial performance prepared in accordance with GAAP.

AGENDA

- Module Roadmap Update / S6 Acceleration
- Competitive Environment
- 2016 Guidance Update
- 2017 Financial Guidance
- Q&A



PREVIOUS ROADMAP

FIRST SOLAR S4

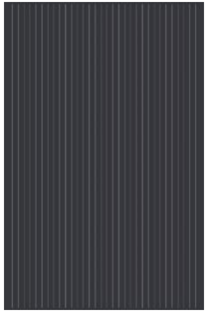
117 W

FIRST SOLAR S5

365 - 390 W

FIRST SOLAR S6

>400 W



CURRENT ROADMAP

FIRST SOLAR **S4**

117 W ➡ 122 W

S6 Availability Pulled Forward to 2018; S5 Cancelled

FIRST SOLAR **S6**

>400 W ➡ >420 W

CURRENT MARKET ENVIRONMENT

Demand

- 2H'16 decline in China market post-FIT reduction
- Lowering of 2020 solar target in China
- Residual impacts of ITC cliff on U.S. market

Supply

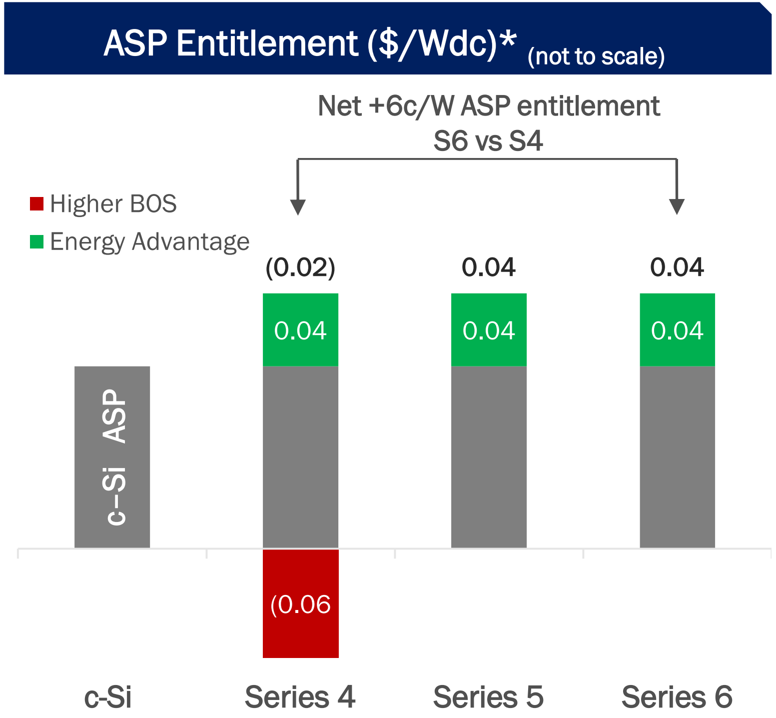
- >20GWs of module capacity ramped during 2016
- Competitors continuing to ramp capacity despite demand headwinds
- Monocrystalline supply increasing and cost declining

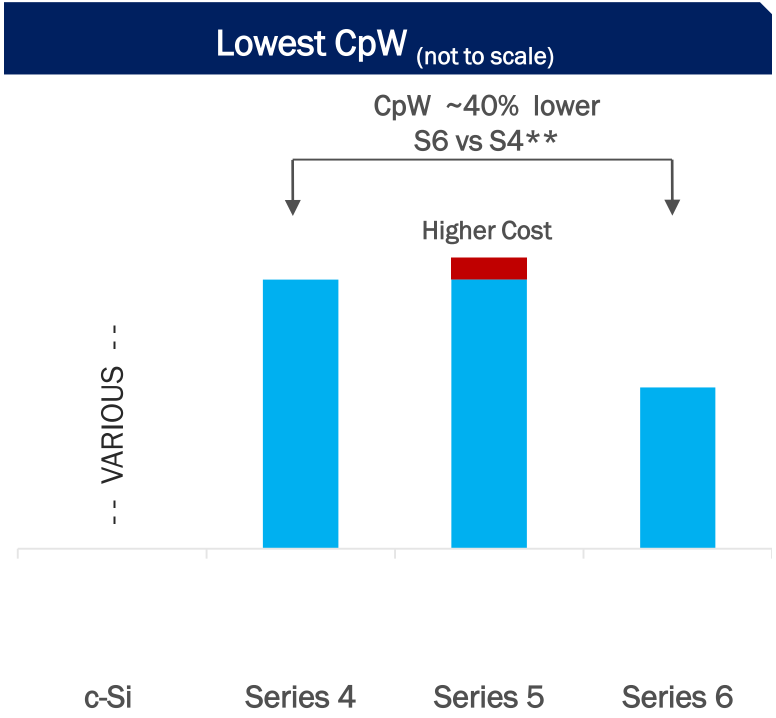
Pricing

- Global module ASP declines of nearly 30% in 2016
- U.S. module ASPs declines even greater
- PPAs bid at aggressive and potentially uneconomic prices

Market Factors Driving S6 Acceleration

SERIES 6 PRODUCT ADVANTAGE

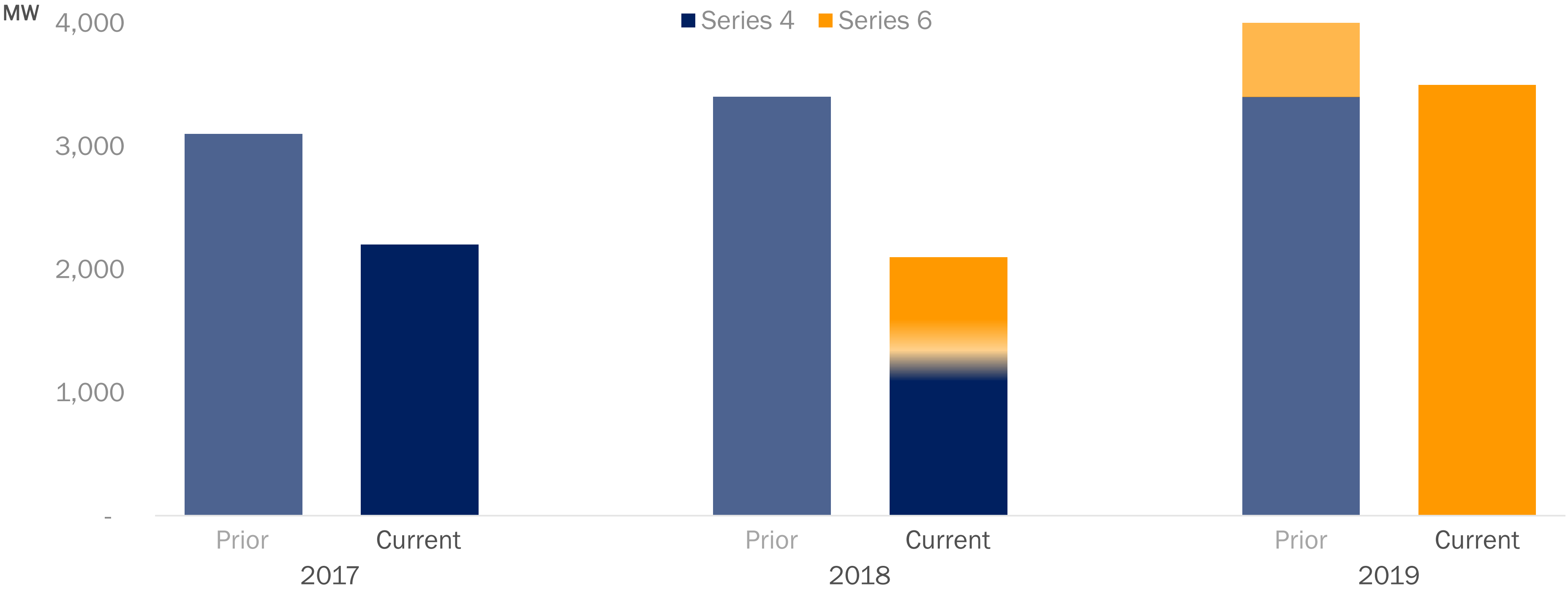




S6: Highest ASP Entitlement + Lowest Cost = Greatest Margin Realization

*Illustrative example. Energy advantage and added BOS cost varies based on geography, site specific factors, PPA pricing and various other factors. Comparison to 340 watt crystalline silicon panel.
**S4 cost per watt is 2016 average ; S6 cost is fully ramped cost, not including start-up effects

MODULE CAPACITY ROADMAP



Approximately 3 GW_{DC} of Potential S6 Capacity in 2019 vs <1GW in Prior Roadmap

Prior numbers reflect 30 lines of existing Series 4 capacity and exclude stored tools. Current roadmap reflects approximate timing of phase out of Series 4 product and ramp of Series 6

FIRST SOLAR OPERATING MARGIN MODEL: BENEFIT OF SCALING

~3GW ~5GW

ASP	100%
COGS	80%
OPEX	10%
Op. Margin	**10%**

Incremental COGS / OpEx
Incremental Contribution Margin = 23%

ASP	100%
COGS	78%
OPEX	7%
Op. Margin	**15%**

Illustrative example reflecting the benefits of scaling fixed costs and operating expenses. Does not reflect benefit of lower module cost expected from future Series 6 production. Not to scale

FINANCIAL GUIDANCE

IMPACT OF OPERATIONS RESTRUCTURING

Expected Restructuring, Asset Impairment & Related Charges (in $M)*

Item	Cash	Non-Cash	Total
Asset Impairments (S4, S5 & Stored Equipment)	$50 to $70	$425 to $515	$475 to $585
Goodwill Impairment	-	$0 to $80	$0 to $80
Employee Severance Charges	$10 to $15	-	$10 to $15
Other**	$10 to $15	$5	$15 to $20
Total	**$70 to $100**	**$430 to $600**	**$500 to $700**
Tax Expense on Cash Distribution to U.S.	$10	$210 to $240	$220 to $250

Restructuring and Related Charges Enabling S6 Acceleration

* All items shown as pre-tax impact, expect for cash distribution which is reflective of the expected tax expense from this transaction. **Expected primarily in 2017

2016 GUIDANCE UPDATE AS OF NOVEMBER 16, 2016

	Prior GAAP	Current GAAP	Prior Non-GAAP*	Current Non-GAAP*
Net Sales	$2.8B to $2.9B	Unchanged		
Gross Margin (%)	25.5% to 26.0%	Unchanged		
Operating Expenses	$480M to $500M	$965M to $1,160M	$375M to $385M	Unchanged
Operating Income (Loss)	$235M to $255M	($445M) to ($210M)	$340M to $370M	Unchanged
Tax (Benefit) Expense[1]	($15M) to ($10M)	$145M to $175M	$30M to $40M	Unchanged
Earnings Per Share[2]	$3.75 to $3.90	($4.00) to ($2.00)	$4.30 to $4.50	$4.60 to $4.80
Net Cash Balance[3]	$1.4B to $1.5B	Unchanged		
Operating Cash Flow[4]	($100M) to $0	Unchanged		
Capital Expenditures	$225M to $275M	Unchanged		
Shipments	2.8GW to 2.9GW	Unchanged		

*See the appendix for a reconciliation of these forward looking non-GAAP measures to their most directly comparable GAAP measures

1. Includes $220 to $250 million of tax expense associated with distribution of cash to the U.S. from a foreign jurisdiction
2. Includes a gain of approximately $145 million, net of tax, from the expected sale of an equity method investment and our share of 8point3 earnings and a gain in other income of approximately $20 million, net of tax, from the sale of restricted investments in Q1 2016
3. Defined as cash and marketable securities less expected debt at the end of 2016
4. Excludes cash from the sale of an equity method investment treated as an investing cash flow

2017 GUIDANCE ASSUMPTIONS AS OF NOVEMBER 16, 2016

Key Assumptions		
Production	~2.2 GW_{dc}	• Lower production resulting from S6 transition
Module Efficiency	16.9%	• 2017 full year fleet average
Volume (Shipped)	600 – 700 MW_{dc} 1,800 – 1,900 MW_{dc}	• Systems segment shipments • Module only shipments
Revenue	\$2.5B to \$2.6B	• Approximately 70% to 75% systems revenue
Module Cost per Watt	9% decline	• Full year 2017 module CpW compared to 2016

FUTURE PROJECT PIPELINE

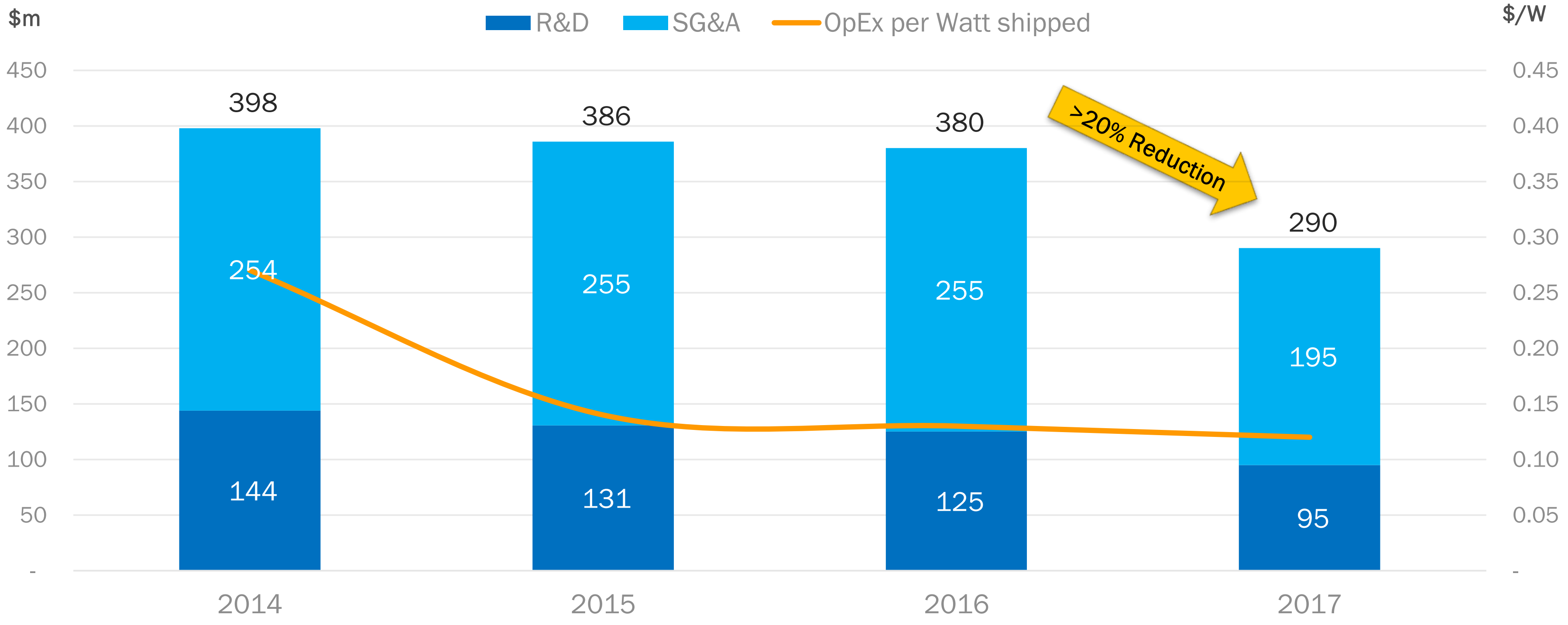
Projects with 2017 Shipments*	Project Size (MW_{AC})	PPA Owner	Substantial Completion Year
California Flats, CA	280	PG&E / Apple Energy	2018
Switch Station 1/2, NV	179	Nevada Power	2017
Cuyama, CA	40	PG&E	2017
India Projects	250	Various	2016/2017
Ishikawa, Japan	59	Hokuriku Electric Power	2018

Projects with 2018+ Shipments	Project Size (MW_{AC})	PPA Owner	Substantial Completion Year
Tribal Solar, CA	310	SCE	2019
Rosamond, CA	150	SCE	2018
Sun Streams, AZ	150	SCE	2019
American Kings, CA	126	SCE	2020
Sunshine Valley, NV	100	SCE	2019
Willow Springs, CA	100	SCE	2018
Little Bear, CA**	40	Marin Clean Energy	2020

Project Pipeline Remains Robust with ~1.3GW_{DC} Shipments Post-2017

*Total shipments to these projects in 2017 expected between 600 and 700 MWs. Project size does not represent 2017 shipments as shipments to certain projects commenced in 2016.
**Option to expand total project up to a total of 160 MWAC

EFFECTIVE OPEX MANAGEMENT

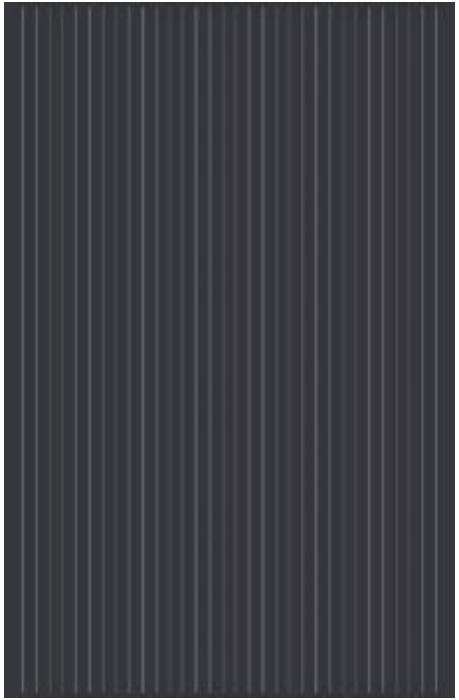


Reducing 2017 Opex to $280 to $300M; R&D investment of $95M

*2016 and 2017 operating expense and shipments based on guidance mid-points. SG&A includes plant-start-up

2017 GUIDANCE AS OF NOVEMBER 16, 2016

	GAAP	Non-GAAP*
Net Sales	$2.5B to $2.6B	
Gross Margin (%)	12.5% to 14.5%	
Operating Expenses	$290M to $305M	$280M to $300M
Operating Income	$30M to $75M	$40M to $80M
Earnings Per Share	($0.10) to $0.45	$0.00 to $0.50
Net Cash Balance[1]	$1.4B to $1.6B	
Operating Cash Flow	$550M to $650M	
Capital Expenditures	$525M to $625M	
Shipments	2.4GW to 2.6GW	



*See the appendix for a reconciliation of these forward looking non-GAAP measures to their most directly comparable GAAP measures

1. Cash and marketable securities less expected debt at the end of 2017

APPENDIX

USE OF NON-GAAP FINANCIAL MEASURES: NON-GAAP GUIDANCE

In the presentation above, we provided non-GAAP guidance for our operating expenses, operating income, effective tax rate and earnings per share for the year ending December 31, 2016 as of the date of this presentation ("current non-GAAP 2016 guidance") and as of the date of the press release announcing our earnings for the quarter ended September 30, 2016 ("prior non-GAAP 2016 guidance"), as well as non-GAAP guidance for our operating expenses, operating income and earnings per share for the year ending December 31, 2017 as of the date of this presentation ("non-GAAP 2017 guidance"). We have included these forward-looking non-GAAP financial measures to adjust our GAAP projections of such financial measures for, as applicable (i) restructuring, asset impairment and related charges primarily associated with the transition from Series 4 to Series 6 production and the end of our crystalline silicon operations, (ii) additional restructuring activities expected during the remainder of the year, (iii) the reversal of a liability associated with an uncertain tax position related to the income of a foreign subsidiary and (iv) the tax expense associated with the distribution of cash to the United States from a foreign subsidiary. Other GAAP charges, including those related to asset impairments, restructuring programs or litigation, that would be excluded from non-GAAP earnings per share are possible for the periods presented, but such amounts are dependent on numerous factors that we currently cannot ascertain with sufficient certainty or are presently unknown. These GAAP charges are also dependent upon future events and valuations that have not yet occurred or been performed. We believe these forward-looking non-GAAP financial measures, when taken together with our corresponding financial guidance based on GAAP, to be relevant and useful information to our investors because they provide them with additional information in assessing our financial operating results. Our management also uses such non-GAAP guidance in evaluating our operating performance. However, such measures have limitations, including that they exclude the effect of certain changes to our assets and liabilities, certain amounts that we may ultimately have to pay in cash and certain tax impacts. Accordingly, these forward-looking non-GAAP financial measures that exclude the aforementioned items should be considered in addition to, and not as substitutes for or superior to, financial guidance based on GAAP. The following are the reconciliations of our current non-GAAP 2016 guidance, our prior non-GAAP 2016 guidance and our non-GAAP 2017 guidance to the corresponding GAAP guidance as of the applicable date (in millions, except per share amounts):

RECONCILIATION OF 2016 CURRENT GAAP TO CURRENT NON-GAAP GUIDANCE

	GAAP Guidance	Restructuring Charges[1]	Foreign Tax Benefit[2]	Cash Distribution[3]	Non-GAAP Guidance
Operating Expenses	$1,160 to $965	($785) to ($580)	-	-	$375 to $385
Operating Income (Loss)	($445) to ($210)	$785 to $580	-	-	$340 to $370
Tax Expense[4]	$145 to $175	$100 to $50	$35	($250) to ($220)	$30 to $40
Earnings per share	($4.00) to ($2.00)	$6.50 to $5.00	($0.30)	$2.40 to $2.10	$4.60 to $4.80

1. Current and previously announced restructuring actions including: $475 to $585 million of asset impairment charges and charges for cancellation of open purchase orders, up to $80 million for a non-cash impairment of goodwill, $20 to $25 million in cash severance charges, $5 to $10 million of other charges related to restructuring of manufacturing operations, $85 to $90 million of restructuring, asset impairment and related charges associated with the end of our crystalline silicon module production.
2. Tax benefit in Q3 2016 from the reversal of a liability associated with an uncertain tax position related to the income of a foreign subsidiary
3. Tax expense associated with the distribution of cash to the United States from a foreign subsidiary
4. Effective tax rate reconciliation provides the estimated tax benefit associated with restructuring and asset impairment charges and the reversal of an uncertain tax position liability

RECONCILIATION OF 2016 PRIOR GAAP TO PRIOR NON-GAAP GUIDANCE

	GAAP Guidance	Restructuring Charges[1]	Foreign Tax Benefit[2]	Non-GAAP Guidance
Operating Expenses	$480 to $500	($105 to $115)	-	$375 to $385
Operating Income	$235 to $255	$105 to $115	-	$340 to $370
Effective Tax Rate[3]	(5%) to (3%)	$15 to $20	$35	8% to 10%
Earnings per share	$3.75 to $3.90	$0.85 to $0.90	($0.30)	$4.30 to $4.50

1. $90 to $95 million of restructuring, asset impairment and related charges primarily associated with the end of our crystalline silicon module production and $15 to $20 million associated with other actions
2. Tax benefit in Q3 2016 from the reversal of a liability associated with an uncertain tax position related to the income of a foreign subsidiary
3. Effective tax rate reconciliation provides the estimated tax benefit associated with restructuring and asset impairment charges and the reversal of an uncertain tax position liability

RECONCILIATION OF GAAP TO NON-GAAP 2017 GUIDANCE

	GAAP Guidance	Restructuring Charges[1]	Non-GAAP Guidance
Operating Expenses	$290 to $305	($10) to ($5)	$280 to $300
Operating Income	$30 to $75	$10 to $5	$40 to $80
Earnings per share	($0.10) to $0.45	$0.10 to $0.05	$0.00 to $0.50

1. $5 to $10 million of other charges related to restructuring of manufacturing operations

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