Tesla, Inc.
Form 10-Q
November 02, 2018

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended September 30, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Commission File Number: 001-34756

Tesla, Inc.

(Exact name of registrant as specified in its charter)

Delaware	91-2197729
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
3500 Deer Creek Road	
Palo Alto, California	94304
(Address of principal executive offices)	(Zip Code)

(650) 681-5000

(Registrant’s telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 (“Exchange Act”) during the preceding 12 months (or for such shorter period that the

registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company”, and “emerging growth company” in Rule 12b-2 of the Exchange Act:

Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company
Emerging growth company	

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of October 26, 2018, there were 171,732,775 shares of the registrant’s common stock outstanding.

TESLA, INC.

FORM 10-Q FOR THE QUARTER ENDED SEPTEMBER 30, 2018

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Forward-Looking Statements

The discussions in this Quarterly Report on Form 10-Q contain forward-looking statements reflecting our current expectations that involve risks and uncertainties. These forward-looking statements include, but are not limited to, statements concerning our strategy, future operations, future financial position, future revenues, projected costs, profitability, expected cost reductions, capital adequacy, expectations regarding demand and acceptance for our technologies, growth opportunities and trends in the market in which we operate, prospects and plans and objectives of management. The words “anticipates”, “believes”, “could”, “estimates”, “expects”, “intends”, “may”, “plans”, “projects”, “v and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements that we make. These forward-looking statements involve risks and uncertainties that could cause our actual results to differ materially from those in the forward-looking statements, including, without limitation, the risks set forth in Part II, Item 1A, “Risk Factors” in this Quarterly Report on Form 10-Q and in our other filings with the Securities and Exchange Commission. We do not assume any obligation to update any forward-looking statements.

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

Tesla, Inc.

Consolidated Balance Sheets

(in thousands, except for par values)

(unaudited)

	September 30, 2018	December 31, 2017
Assets		
Current assets		
Cash and cash equivalents	$ 2,967,504	$ 3,367,914
Restricted cash	158,627	155,323
Accounts receivable, net	1,155,001	515,381
Inventory	3,314,127	2,263,537
Prepaid expenses and other current assets	325,232	268,365
Total current assets	7,920,491	6,570,520
Operating lease vehicles, net	2,186,137	4,116,604
Solar energy systems, leased and to be leased, net	6,301,537	6,347,490
Property, plant and equipment, net	11,246,295	10,027,522
Intangible assets, net	291,476	361,502
Goodwill	65,226	60,237
MyPower customer notes receivable, net of current portion	422,897	456,652
Restricted cash, net of current portion	396,835	441,722
Other assets	431,819	273,123
Total assets	$ 29,262,713	$ 28,655,372
Liabilities		
Current liabilities		
Accounts payable	$ 3,596,984	$ 2,390,250
Accrued liabilities and other	1,990,095	1,731,366
Deferred revenue	570,920	1,015,253
Resale value guarantees	604,949	787,333
Customer deposits	905,838	853,919
Current portion of long-term debt and capital leases	2,106,538	796,549
Current portion of promissory notes issued to related parties	—	100,000
Total current liabilities	9,775,324	7,674,670
Long-term debt and capital leases, net of current portion	9,669,879	9,415,700
Solar bonds issued to related parties, net of current portion	100	100
Convertible senior notes issued to related parties	2,634	2,519
Deferred revenue, net of current portion	950,126	1,177,799
Resale value guarantees, net of current portion	455,762	2,309,222

Other long-term liabilities	2,555,319	2,442,970
Total liabilities	23,409,144	23,022,980
Commitments and contingencies (Note 12)		
Redeemable noncontrolling interests in subsidiaries	551,264	397,734
Convertible senior notes (Note 10)	—	70
Equity		
Stockholders' equity		
Preferred stock; $0.001 par value; 100,000 shares authorized; no shares issued and outstanding	—	—
Common stock; $0.001 par value; 2,000,000 shares authorized; 171,578 and 168,797 shares issued and outstanding as of September 30, 2018 and December 31, 2017, respectively	171	169
Additional paid-in capital	9,957,711	9,178,024
Accumulated other comprehensive income	8,271	33,348
Accumulated deficit	(5,457,315)	(4,974,299)
Total stockholders' equity	4,508,838	4,237,242
Noncontrolling interests in subsidiaries	793,467	997,346
Total liabilities and equity	$ 29,262,713	$ 28,655,372

The accompanying notes are an integral part of these consolidated financial statements.

Tesla, Inc.

Consolidated Statements of Operations

(in thousands, except per share data)

(unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Revenues				
Automotive sales	$ 5,878,305	$ 2,076,731	$11,558,051	$6,125,643
Automotive leasing	220,461	286,158	633,713	813,462
Total automotive revenues	6,098,766	2,362,889	12,191,764	6,939,105
Energy generation and storage	399,317	317,505	1,183,747	818,229
Services and other	326,330	304,281	859,884	713,168
Total revenues	6,824,413	2,984,675	14,235,395	8,470,502
Cost of revenues				
Automotive sales	4,405,919	1,755,622	9,027,055	4,724,849
Automotive leasing	119,283	175,224	360,694	516,683
Total automotive cost of revenues	4,525,202	1,930,846	9,387,749	5,241,532
Energy generation and storage	330,554	237,288	1,036,190	592,823
Services and other	444,992	367,401	1,212,335	852,446
Total cost of revenues	5,300,748	2,535,535	11,636,274	6,686,801
Gross profit	1,523,665	449,140	2,599,121	1,783,701
Operating expenses				
Research and development	350,848	331,622	1,104,073	1,023,436
Selling, general and administrative	729,876	652,998	2,167,039	1,794,210
Restructuring and other	26,184	—	129,618	—
Total operating expenses	1,106,908	984,620	3,400,730	2,817,646
Income (loss) from operations	416,757	(535,480)	(801,609)	(1,033,945)
Interest income	6,907	5,531	17,185	13,406
Interest expense	(175,220)	(117,109)	(488,348)	(324,896)
Other income (expense), net	22,876	(24,390)	36,071	(83,696)
Income (loss) before income taxes	271,320	(671,448)	(1,236,701)	(1,429,131)
Provision (benefit) for income taxes	16,647	(285)	35,959	40,640
Net income (loss)	254,673	(671,163)	(1,272,660)	(1,469,771)
Net loss attributable to noncontrolling interests and redeemable noncontrolling interests in subsidiaries	(56,843)	(51,787)	(157,086)	(183,721)
Net income (loss) attributable to common stockholders	$ 311,516	$ (619,376)	$(1,115,574)	$(1,286,050)
Net income (loss) per share of common stock attributable to common stockholders, basic and diluted				

Basic	$ 1.82	$ (3.70)	$(6.56)	$(7.80)
Diluted	$ 1.75	$ (3.70)	$(6.56)	$(7.80)
Weighted average shares used in computing net income (loss) per share of common stock				
Basic	170,893	167,294	170,019	164,897
Diluted	178,196	167,294	170,019	164,897

The accompanying notes are an integral part of these consolidated financial statements.

Tesla, Inc.

Consolidated Statements of Comprehensive Income (Loss)

(in thousands)

(unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net income (loss) attributable to common stockholders	$ 311,516	$ (619,376)	$(1,115,574)	$(1,286,050)
Unrealized gains (losses) on derivatives:				
Reclassification adjustment for net losses into net loss	—	—	—	(5,570)
Foreign currency translation adjustment	(10,274)	10,289	(25,077)	50,560
Other comprehensive (loss) income	(10,274)	10,289	(25,077)	44,990
Comprehensive income (loss)	$ 301,242	$ (609,087)	$(1,140,651)	$(1,241,060)

The accompanying notes are an integral part of these consolidated financial statements.

Tesla, Inc.

Consolidated Statements of Cash Flows

(in thousands)

(unaudited)

	Nine Months Ended September 30,	
	2018	2017
Cash Flows from Operating Activities		
Net loss	$(1,272,660)	$(1,469,771)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation, amortization and impairment	1,404,313	1,166,397
Stock-based compensation	543,711	332,412
Amortization of debt discounts and issuance costs	120,873	60,613
Inventory write-downs	59,983	98,347
Loss on disposals of fixed assets	132,639	59,640
Foreign currency transaction (gains) losses	(6,614)	35,933
Loss related to SolarCity acquisition	—	29,796
Non-cash interest and other operating activities	22,093	109,729
Changes in operating assets and liabilities, net of effect of business combinations:		
Accounts receivable	(686,103)	(105,643)
Inventory	(1,110,611)	(418,970)
Operating lease vehicles	(188,948)	(1,083,140)
Prepaid expenses and other current assets	(31,532)	(123,832)
MyPower customer notes receivable and other assets	(62,399)	17,628
Accounts payable and accrued liabilities	1,627,997	170,326
Deferred revenue	284,417	329,007
Customer deposits	9,471	3,815
Resale value guarantee	(57,621)	141,044
Other long-term liabilities	74,232	76,124
Net cash provided by (used in) operating activities	863,241	(570,545)
Cash Flows from Investing Activities		
Purchases of property and equipment excluding capital leases, net of sales	(1,775,746)	(2,628,126)
Purchases of solar energy systems, leased and to be leased	(189,869)	(547,085)
Business combinations, net of cash acquired	(6,804)	(109,147)
Net cash used in investing activities	(1,972,419)	(3,284,358)
Cash Flows from Financing Activities		
Proceeds from issuances of common stock in public offerings	—	400,175
Proceeds from issuances of convertible and other debt	3,946,575	5,401,158
Repayments of convertible and other debt	(3,111,242)	(2,442,942)
Repayments of borrowings under Solar Bonds issued to related parties	(100,000)	(165,000)
Collateralized lease (repayments) borrowings	(343,086)	416,427
Proceeds from exercises of stock options and other stock issuances	219,945	239,328
Principal payments on capital leases	(105,867)	(69,496)

Common stock and debt issuance costs	(5,121)	(50,530)
Purchases of convertible note hedges	—	(204,102)
Proceeds from settlement of convertible note hedges	—	269,456
Proceeds from issuances of warrants	—	52,883
Payments for settlements of warrants	(5)	(219,538)
Proceeds from investments by noncontrolling interests in subsidiaries	366,297	691,918
Distributions paid to noncontrolling interests in subsidiaries	(178,511)	(190,715)
Payments for buy-outs of noncontrolling interests in subsidiaries	(2,921)	—
Net cash provided by financing activities	686,064	4,129,022
Effect of exchange rate changes on cash and cash equivalents and restricted cash	(18,879)	35,736
Net (decrease) increase in cash and cash equivalents and restricted cash	(441,993)	309,855
Cash and cash equivalents and restricted cash, beginning of period	3,964,959	3,766,900
Cash and cash equivalents and restricted cash, end of period	$3,522,966	$4,076,755
Supplemental Non-Cash Investing and Financing Activities		
Acquisitions of property and equipment included in liabilities	$305,974	$1,021,692
Estimated fair value of facilities under build-to-suit leases	$61,709	$173,075

The accompanying notes are an integral part of these consolidated financial statements.

Tesla, Inc.

Notes to Consolidated Financial Statements

(unaudited)

Note 1 – Overview

Tesla, Inc. (“Tesla”, the “Company”, “we”, “us” or “our”) was incorporated in the State of Delaware on July 1, 2003. We desig develop, manufacture and sell high-performance fully electric vehicles and design, manufacture, install and sell solar energy generation and energy storage products. Our Chief Executive Officer, as the chief operating decision maker (“CODM”), organizes the Company, manages resource allocations and measures performance among two operating and reportable segments: (i) automotive and (ii) energy generation and storage.

Note 2 – Summary of Significant Accounting Policies

Unaudited Interim Financial Statements

The consolidated balance sheet as of September 30, 2018, the consolidated statements of operations and the consolidated statements of comprehensive income (loss) for the three and nine months ended September 30, 2018 and 2017 and the consolidated statements of cash flows for the nine months ended September 30, 2018 and 2017, as well as other information disclosed in the accompanying notes, are unaudited. The consolidated balance sheet as of December 31, 2017 was derived from the audited consolidated financial statements as of that date. The interim consolidated financial statements and the accompanying notes should be read in conjunction with the annual consolidated financial statements and the accompanying notes contained in our Annual Report on Form 10-K for the year ended December 31, 2017.

The interim consolidated financial statements and the accompanying notes have been prepared on the same basis as the annual consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary for a fair statement of the results of operations for the periods presented. The consolidated results of operations for any interim period are not necessarily indicative of the results to be expected for the full year or for any other future years or interim periods.

Reclassifications

Certain prior period balances have been reclassified to conform to the current period presentation in the consolidated financial statements and the accompanying notes as a result of the adoption of the Accounting Standards Update (“ASU”) 2016-18, Statement of Cash Flows: Restricted Cash.

Revenue Recognition

Adoption of new accounting standards

ASU 2014-09, Revenue - Revenue from Contracts with Customers. On January 1, 2018, we adopted the new accounting standard ASC 606, Revenue from Contracts with Customers and all the related amendments (“new revenue

standard") using the modified retrospective method. As a policy election, the new revenue standard was applied only to contracts that were not substantially completed as of the date of adoption. We recognized the cumulative effect of initially applying the new revenue standard as an adjustment to the January 1, 2018 opening balance of accumulated deficit. The prior period consolidated financial statements have not been retrospectively adjusted and continue to be reported under the accounting standards in effect for those periods.

A majority of our automotive sales revenue is recognized when control transfers upon delivery to customers. For certain vehicle sales where revenue was previously deferred either as an in-substance operating lease, such as certain vehicle sales to customers or leasing partners with a resale value guarantee, we now recognize revenue when the vehicles are shipped as a sale with a right of return. As a result, the corresponding operating lease asset, deferred revenue, and resale value guarantee balances as of December 31, 2017, were reclassified to accumulated deficit as part of our adoption entry. Furthermore, the warranty liability related to such vehicles has been accrued as a result of the change from in-substance operating leases to vehicle sales. Prepayments on contracts that can be cancelled without significant penalties, such as vehicle maintenance plans, have been reclassified from deferred revenue to customer deposits. Refer to the Automotive Revenue and Automotive Leasing Revenue sections below for further discussion of the impact on various categories of vehicle sales.

Following the adoption of the new revenue standard, the revenue recognition for our other sales arrangements, including sales of solar energy systems, energy storage products, services, and sales of used vehicles, remained consistent with our historical revenue recognition policy. Under our lease pass-through fund arrangements, we do not have any further performance obligations and therefore reclassified all investment tax credit ("ITC") deferred revenue as of December 31, 2017, to accumulated deficit as part of our adoption entry. The corresponding effects of the changes to lease pass-through fund arrangements are also reflected in our non-controlling interests in subsidiaries. Additionally, we have considered the impact from any new revenue arrangements in the current year that would have been accounted for differently under ASC 605, Revenue Recognition, as an adjustment from adoption of the new revenue standard.

Accordingly, the cumulative effect of the changes made to our consolidated January 1, 2018 consolidated balance sheet for the adoption of the new revenue standard was as follows (in thousands):

	Balances at December 31, 2017	Adjustments from Adoption of New Revenue Standard	Balances at January 1, 2018
Assets			
Inventory	$2,263,537	$(27,009)	$2,236,528
Prepaid expenses and other current assets	268,365	51,735	320,100
Operating lease vehicles, net	4,116,604	(1,808,932)	2,307,672
Other assets	273,123	68,355	341,478
Liabilities			
Accrued liabilities and other	1,731,366	74,487	1,805,853
Deferred revenue	1,015,253	(436,737)	578,516
Resale value guarantees	787,333	(295,909)	491,424
Customer deposits	853,919	56,081	910,000
Deferred revenue, net of current portion	1,177,799	(429,771)	748,028
Resale value guarantees, net of current portion	2,309,222	(1,346,179)	963,043
Other long-term liabilities	2,442,970	104,767	2,547,737
Redeemable noncontrolling interests in subsidiaries	397,734	8,101	405,835
Equity			
Accumulated other comprehensive income	33,348	15,221	48,569
Accumulated deficit	(4,974,299)	623,172	(4,351,127)
Noncontrolling interests in subsidiaries	997,346	(89,084)	908,262

In accordance with the new revenue standard requirements, the impact of adoption on our consolidated balance sheet was as follows (in thousands):

	September 30, 2018		
	As Reported	Balances Without Adoption of New Revenue Standard	Effect of Change Higher / (Lower)
Assets			
Accounts receivable	$1,155,001	$1,099,914	$55,087
Inventory	3,314,127	3,431,185	(117,058)
Prepaid expenses and other current assets	325,232	247,056	78,176
Operating lease vehicles, net	2,186,137	4,177,710	(1,991,573)
Other assets	431,819	321,847	109,972
Liabilities			
Accrued liabilities and other	1,990,095	1,896,319	93,776
Deferred revenue	570,920	1,080,243	(509,323)
Resale value guarantees	604,949	978,515	(373,566)
Customer deposits	905,838	850,229	55,609
Deferred revenue, net of current portion	950,126	1,387,829	(437,703)
Resale value guarantees, net of current portion	455,762	2,016,861	(1,561,099)
Other long-term liabilities	2,555,319	2,441,543	113,776
Redeemable noncontrolling interests in subsidiaries	551,264	544,315	6,949
Equity			
Accumulated other comprehensive gain	8,271	13,875	(5,604)
Accumulated deficit	(5,457,315)	(6,287,370)	830,055
Noncontrolling interests in subsidiaries	793,467	871,733	(78,266)

In accordance with the new revenue standard requirements, the impact of adoption on our consolidated statement of operations and consolidated statement of comprehensive loss was as follows (in thousands):

	Three Months Ended September 30, 2018			Nine Months Ended September 30, 2018		
	As Reported	Balances Without Adoption of New Revenue Standard	Effect of Change Higher /	As Reported	Balances Without Adoption of	Effect of Change Higher /

		Adoption of New Revenue Standard	(Lower)		New Revenue Standard	(Lower)
Revenues						
Automotive sales	$5,878,305	$5,399,316	$478,989	$11,558,051	$10,414,408	$1,143,643
Automotive leasing	220,461	469,837	(249,376)	633,713	1,237,239	(603,526)
Energy generation and storage	399,317	408,205	(8,888)	1,183,747	1,163,935	19,812
Cost of revenues						
Automotive sales	4,405,919	4,076,044	329,875	9,027,055	8,231,328	795,727
Automotive leasing	119,283	307,957	(188,674)	360,694	811,671	(450,977)
Provision (benefit) for income taxes	16,647	16,984	(337)	35,959	37,329	(1,370)
Net income (loss)	254,673	174,812	79,861	(1,272,660)	(1,489,209)	216,549
Net loss attributable to noncontrolling interests and redeemable noncontrolling interests in subsidiaries	(56,843)	(62,138)	5,295	(157,086)	(166,752)	9,666
Net income (loss) attributable to common stockholders	311,516	236,950	74,566	(1,115,574)	(1,322,457)	206,883
Foreign currency translation adjustment	(10,274)	(4,968)	(5,306)	(25,077)	(4,252)	(20,825)
Comprehensive income (loss)	301,242	231,982	69,260	(1,140,651)	(1,280,279)	139,628

In accordance with the new revenue standard requirements, the impact of adoption on our consolidated statement of cash flows for the nine months ended September 30, 2018 was an increase in collateralized lease repayments of $304.4 million, from a net financing cash outflow of $38.7 million to a net financing cash outflow of $343.1 million as presented, with an offsetting increase to cash outflows from operations. Additionally, the adjustments to the consolidated balance sheet, consolidated statement of operations and consolidated statement of comprehensive income (loss) identified above would have corresponding impacts within the operating section of the consolidated statement of cash flows.

Automotive Revenue

Automotive Sales without Resale Value Guarantee

Automotive revenue includes revenues related to deliveries of new vehicles, and specific other features and services that meet the definition of a performance obligation under the new revenue standard, including internet connectivity, access to our Supercharger network and future over-the-air software updates. We recognize revenue on automotive sales upon delivery to the customer, which is when the control of a vehicle transfers. Payments are typically received at the point control transfers or in accordance with payment terms customary to the business. Other features and services such as connectivity, Supercharger, and over-the-air software updates are provisioned upon control transfer of a vehicle and recognized over time on a straight-line basis as we have a stand-ready obligation to deliver such services to the customer. We recognize revenue related to these other features and services over the performance period, which is generally the expected ownership life of the vehicle or the eight-year life of the vehicle. Revenue related to Autopilot and full self-driving features is recognized when functionality is delivered to the customer. For our obligations related to automotive sales, we estimate standalone selling price by considering costs used to develop and deliver the service, third-party pricing of similar options and other information that may be available.

At the time of revenue recognition, we reduce the transaction price and record a reserve against revenue for estimated variable consideration related to future product returns. Such estimates are based on historical experience and are immaterial in all periods presented. In addition, any fees that are paid or payable by us to a customer’s lender when we arrange the financing are recognized as an offset against automotive sales revenue.

Costs to obtain a contract mainly relate to commissions paid to our sales personnel for the sale of vehicles. Commissions are not paid on other obligations such as connectivity, access to our Supercharger network, and over-the-air software updates. As our contract costs related to automotive sales are typically fulfilled within one year, the costs to obtain a contract are expensed as incurred. We have elected to recognize the cost for freight and shipping when control over vehicles, parts, or accessories have transferred to the customer as an expense in cost of revenues. Our policy is to exclude taxes collected from a customer from the transaction price of automotive contracts.

Automotive Sales with Resale Value Guarantee

We offer resale value guarantees or similar buy-back terms to certain customers who purchase vehicles and who finance their vehicles through one of our specified commercial banking partners. We also offer resale value guarantees in connection with automotive sales to certain leasing partners. Currently, both programs are available only in certain international markets. Under these programs, we receive full payment for the vehicle sales price at the time of delivery and our counterparty has the option of selling their vehicle back to us during the guarantee period, which currently is generally at the end of the term of the applicable loan or financing program, for a pre-determined resale value.

With the exception of two programs which are discussed within the Automotive Leasing section, we now recognize revenue when control transfers upon delivery to customers in accordance with the new revenue standard as a sale with a right of return as we do not believe the customer has a significant economic incentive to exercise the resale value

guarantee provided to them. The process to determine whether there is a significant economic incentive includes a comparison of a vehicle's estimated market value at the time the option is exercisable with the guaranteed resale value to determine the customer's economic incentive to exercise. The performance obligations and the pattern of recognizing automotive sales with resale value guarantees are consistent with automotive sales without resale value guarantees with the exception of our estimate for sales return reserve. Sales return reserves for automotive sales with resale value guarantees are estimated based on historical experience plus consideration for expected future market values. The two programs that are still being recorded as operating leases are discussed in further detail below in Vehicle Sales to Leasing Partners with a Resale Value Guarantee and a Buyback Option and Vehicle Sales to Customers with a Resale Value Guarantee where Exercise is Probable.

Prior to the adoption of the new revenue standard, all transactions with resale value guarantees were recorded as operating leases. The amount of sale proceeds equal to the resale value guarantee was deferred until the guarantee expired or was exercised. For certain transactions that were considered interest bearing collateralized borrowings as required under ASC 840, Leases, we also accrued interest expense based on our borrowing rate. The remaining sale proceeds were deferred and recognized on a straight-line basis over the stated guarantee period to automotive leasing revenue. The guarantee period expired at the earlier of the end of the guarantee period or the pay-off of the initial loan. We capitalized the cost of these vehicles on the consolidated balance sheet as operating lease vehicles, net, and depreciated their value, less estimated residual value, to cost of automotive leasing revenue over the same period.

In cases where our counterparty retained ownership of the vehicle at the end of the guarantee period, the resale value guarantee liability and any remaining deferred revenue balances related to the vehicle were settled to automotive leasing revenue, and the net book value of the leased vehicle was expensed to cost of automotive leasing revenue. If our counterparty returned the vehicle to us during the guarantee period, we purchased the vehicle from our counterparty in an amount equal to the resale value guarantee and settled any remaining deferred balances to automotive leasing revenue, and we reclassified the net book value of the vehicle on the consolidated balance sheet to used vehicle inventory.

Deferred revenue activity related to the access to our Supercharger network, internet connectivity, Autopilot and over-the-air software updates on automotive sales with and without resale value guarantee consisted of the following (in thousands):

	Nine Months Ended September 30, 2018
Deferred revenue on automotive sales with and without resale value guarantee—beginning of period	$ 475,919
Additions	365,376
Net changes in liability for pre-existing contracts	(7,930)
Revenue recognized	(71,874)
Deferred revenue on automotive sales with and without resale value guarantee—end of period	$ 761,491

Deferred revenue is equivalent to the total transaction price allocated to the performance obligations that are unsatisfied, or partially unsatisfied, as of September 30, 2018. From the deferred revenue balance as of January 1, 2018, revenue recognized during the nine months ended September 30, 2018 was $60.3 million. Of the total deferred revenue on automotive sales with and without resale value guarantees, we expect to recognize $284.7 million of revenue in the next 12 months. The remaining balance will be recognized over the performance period as discussed above in Automotive Sales without Resale Value Guarantee.

Automotive Regulatory Credits

California and certain other states have laws in place requiring vehicle manufacturers to ensure that a portion of the vehicles delivered for sale in that state during each model year are zero-emission vehicles. These laws and regulations provide that a manufacturer of zero-emission vehicles may earn regulatory credits (“ZEV credits”) and may sell excess credits to other manufacturers who apply such credits to comply with these regulatory requirements. Similar regulations exist at the federal level that require compliance related to greenhouse gas (“GHG”) emissions and also allow for the sale of excess credits by one manufacturer to other manufacturers. As a manufacturer solely of zero-emission vehicles, we have earned emission credits, such as ZEV and GHG credits, on our vehicles, and we expect to continue to earn these credits in the future. We enter into contractual agreements with third-parties to purchase our regulatory credits. Payments for regulatory credits are typically received at the point control transfers to the customer, or in accordance with payment terms customary to the business.

We recognize revenue on the sale of regulatory credits at the time control of the regulatory credits is transferred to the purchasing party as automotive revenue in the consolidated statement of operations. We had no deferred revenue related to sales of automotive regulatory credits as of September 30, 2018 or December 31, 2017.

Automotive Leasing Revenue

Automotive leasing revenue includes revenue recognized under lease accounting guidance for our direct leasing programs as well as the two programs with resale value guarantees which continue to qualify for operating lease treatment. Prior to the adoption of the new revenue standard, all programs with resale value guarantees were accounted for as operating leases.

Direct Vehicle Leasing Program

We offer vehicle leasing programs in certain locations in North America and Europe. Qualifying customers are permitted to lease a vehicle directly from Tesla for up to 48 months. Currently, the program is only offered to qualified customers in North America. At the end of the lease term, customers have the option of either returning the vehicle to us or purchasing it for a pre-determined residual value. We account for these leasing transactions as operating leases. We record leasing revenues to automotive leasing revenue on a straight-line basis over the contractual term, and we record the depreciation of these vehicles to cost of automotive leasing revenue. For the three and nine months ended September 30, 2018, we recognized $101.1 million and $270.4 million, respectively, of leasing revenues, and $57.2 million and $155.9 million, respectively, for the same periods in 2017. As of September 30, 2018 and December 31, 2017, we had deferred $110.0 million and $96.6 million, respectively, of lease-related upfront payments, which will be recognized on a straight-line basis over the contractual terms of the individual leases.

We capitalize shipping costs and initial direct costs such as the incremental cost of contract administration, referral fees and sales commissions from the origination of automotive lease agreements as an element of operating lease vehicles, net, and subsequently amortize these costs over the term of the related lease agreement. Our policy is to exclude taxes collected from a customer from the transaction price of automotive contracts.

Vehicle Sales to Leasing Partners with a Resale Value Guarantee and a Buyback Option

We offer buyback options in connection with automotive sales with resale value guarantees with certain leasing partner sales in the United States. These transactions entail a transfer of leases, which we have originated with an end-customer, to our leasing partner. As control of the vehicles has not been transferred in accordance with the new revenue standard, these transactions continue to be accounted for as interest bearing collateralized borrowings in accordance with ASC 840, Leases. We have not sold any vehicles under this program in the United States since the second half of 2017 and all current period activity relates to the exercise or cancellation of active transactions. Under this program, cash is received for the full price of the vehicle and the collateralized borrowing value is generally recorded within resale value guarantees and the customer upfront deposit is recorded within deferred revenue. We amortize the deferred revenue amount to automotive leasing revenue on a straight-line basis over the option period and accrue interest expense based on our borrowing rate. We capitalize vehicles under this program to operating lease vehicles, net, on the consolidated balance sheet, and we record depreciation from these vehicles to cost of automotive leasing revenue during the period the vehicle is under a lease arrangement. Cash received for these vehicles, net of revenue recognized during the period, is classified as collateralized lease (repayments) borrowings within cash flows from financing activities in the consolidated statement of cash flows.

At the end of the lease term, we settle our liability in cash by either purchasing the vehicle from the leasing partner for the buyback option amount or paying a shortfall to the option amount the leasing partner may realize on the sale of the vehicle. Any remaining balances within deferred revenue and resale value guarantee will be settled to automotive leasing revenue. In cases where the leasing partner retains ownership of the vehicle after the end of our option period, we expense the net value of the leased vehicle to cost of automotive leasing revenue. The maximum amount we could be required to pay under this program, should we decide to repurchase all vehicles, was $629.1 million as of September 30, 2018, including $388.8 million within a 12-month period. As of September 30, 2018, we had $734.3 million of such borrowings recorded in resale value guarantees and $112.5 million recorded in deferred revenue liability. For the three and nine months ended September 30, 2018, we recognized $89.4 million and $256.6 million, respectively, of leasing revenue related to this program.

On a quarterly basis, we assess the estimated market values of vehicles under our buyback options program to determine if we have sustained a loss on any of these contracts. As we accumulate more data related to the buyback values of our vehicles or as market conditions change, there may be material changes to their estimated values, although we have not experienced any material losses during any period to date.

Vehicle Sales to Customers with a Resale Value Guarantee where Exercise is Probable

For certain international programs where we have offered resale value guarantees to certain customers who purchased vehicles and where we expect the customer has a significant economic incentive to exercise the resale value guarantee provided to them, we continue to recognize these transactions as operating leases. The process to determine whether there is a significant economic incentive includes a comparison of a vehicle’s estimated market value at the time the option is exercisable with the guaranteed resale value to determine the customer’s economic incentive to exercise. We have not sold any vehicles under this program since the first half of 2017 and all current period activity relates to the exercise or cancellation of active transactions. The amount of sale proceeds equal to the resale value guarantee is deferred until the guarantee expires or is exercised. The remaining sale proceeds are deferred and recognized on a straight-line basis over the stated guarantee period to automotive leasing revenue. The guarantee period expires at the

earlier of the end of the guarantee period or the pay-off of the initial loan. We capitalize the cost of these vehicles on the consolidated balance sheet as operating lease vehicles, net, and depreciate their value, less salvage value, to cost of automotive leasing revenue over the same period.

In cases where a customer retains ownership of a vehicle at the end of the guarantee period, the resale value guarantee liability and any remaining deferred revenue balances related to the vehicle are settled to automotive leasing revenue, and the net book value of the leased vehicle is expensed to cost of automotive leasing revenue. If a customer returns the vehicle to us during the guarantee period, we purchase the vehicle from the customer in an amount equal to the resale value guarantee and settle any remaining deferred balances to automotive leasing revenue, and we reclassify the net book value of the vehicle on the consolidated balance sheet to used vehicle inventory. As of September 30, 2018, $162.3 million of the guarantees were exercisable by customers within the next 12 months. For the three and nine months ended September 30, 2018, we recognized $30.0 million and $106.7 million, respectively, of leasing revenue related to this program.

Energy Generation and Storage Segment

Energy Generation and Storage Sales

Energy generation and storage revenues consists of the sale of solar energy and storage systems to residential, small commercial, and large commercial and utility grade customers. Sales of solar energy systems to residential and small scale commercial customers consists of the engineering, design, and installation of the system. Post installation, residential and small scale commercial customers receive a proprietary monitoring system that captures and displays historical energy generation data. Residential and small scale commercial customers pay the full purchase price of the solar energy system up-front. Revenue for the design and installation obligation is recognized when control transfers, which is when we install a solar energy system and the system passes inspection by the utility or the authority having jurisdiction. Revenue for the monitoring service is recognized ratably as a stand-ready obligation over the warranty period of the solar energy system. Sales of energy storage systems to residential and small scale commercial customers consists of the installation of the energy storage system and revenue is recognized when control transfers, which is when the product has been delivered or, if we are performing installation, when installed and accepted by the customer. Payment for such storage systems are made upon invoice or in accordance with payment terms customary to the business.

For large commercial and utility grade solar energy and storage sales which consist of the engineering, design, and installation of the system, customers make milestone payments that are consistent with contract specific phases of a project. Revenue from such contracts is recognized over time using percentage of completion method based on cost incurred as a percentage of total estimated contract costs. Certain large scale commercial and utility grade solar energy and storage sales also include operations and maintenance service which are negotiated with the design and installation contracts and are thus considered to be a combined contract with the design and installation service. For certain large commercial and utility grade solar and storage systems where percentage of completion method does not apply, revenue is recognized when control transfers, which is when the product has been delivered to the customer for storage systems and when the project has received permission to operate from the utility for solar energy systems. Operations and maintenance service revenue is recognized ratably over the respective contract term. Customer payments for such services are usually paid annually or quarterly in advance.

In instances where there are multiple performance obligations in a single contract, we allocate the consideration to the various obligations in the contract based on the relative standalone selling price method. Standalone selling prices are estimated based on estimated costs plus margin or using market data for comparable products. Costs incurred on the sale of residential installations before the solar energy systems are completed are included as work in process within inventory in the consolidated balance sheets. However, any fees that are paid or payable by us to a solar loan lender would be recognized as an offset against revenue. Costs to obtain a contract relate mainly to commissions paid to our sales personnel related to the sale of solar energy and storage systems. As our contract costs related to energy generation and storage sales are typically fulfilled within one year, the costs to obtain a contract are expensed as incurred.

As part of our energy generation and storage contracts, we may provide the customer with performance guarantees that warrant that the underlying energy generation or storage system will meet or exceed the minimum contract energy generation or retention requirements. In certain instances, we may receive a bonus payment if the system performs above a specified level. Conversely, if an energy generation or storage system does not meet the performance guarantee requirements, we may be required to pay liquidated damages. Other forms of variable consideration related to our large commercial and utility grade energy generation and storage contracts include variable customer payments that will be made based on our energy market participation activities. Such guarantees and variable customer payments represent a form of variable consideration and are estimated at contract inception at their most likely amount and updated at the end of each reporting period as additional performance data becomes available. Such estimates are

included in the transaction price only to the extent that it is probable a significant reversal of revenue will not occur.

We record as deferred revenue any amounts that are collected from customers related to fees charged for prepayments and remote monitoring service and operations and maintenance service, which is recognized as revenue ratably over the respective customer contract term. As of September 30, 2018 and December 31, 2017, deferred revenue related to such customer payments amounted to $158.7 million and $124.0 million, respectively. Revenue recognized from the deferred revenue balance as of January 1, 2018, was $36.7 million for the nine months ended September 30, 2018. We have elected the practical expedient to omit disclosure of the amount of the transaction price allocated to remaining performance obligations for energy generation and storage sales with an original expected contract length of one year or less. As of September 30, 2018, total transaction price allocated to performance obligations that were unsatisfied or partially unsatisfied for contracts with an original expected length of more than one year was $115.7 million. Of this amount, we expect to recognize $6.7 million in the next 12 months and the remaining over a period up to 30 years.

Energy Generation and Storage Leasing

For revenue arrangements where we are the lessor under operating lease agreements for solar energy systems, including energy storage products, we record lease revenue from minimum lease payments, including upfront rebates and incentives earned from such systems, on a straight-line basis over the life of the lease term, assuming all other revenue recognition criteria have been met. For incentives that are earned based on the amount of electricity generated by the system, we record revenue as the amounts are earned. The difference between the payments received and the revenue recognized is recorded as deferred revenue on the consolidated balance sheet.

For solar energy systems where customers purchase electricity from us under power purchase agreements ("PPA"), we have determined that these agreements should be accounted for as operating leases pursuant to ASC 840. Revenue is recognized based on the amount of electricity delivered at rates specified under the contracts, assuming all other revenue recognition criteria are met.

We record as deferred revenue any amounts that are collected from customers, including lease prepayments, in excess of revenue recognized and operations and maintenance service, which is recognized as revenue ratably over the respective customer contract term. As of September 30, 2018 and December 31, 2017, deferred revenue related to such customer payments amounted to $212.2 million and $206.8 million, respectively. Deferred revenue also includes the portion of rebates and incentives received from utility companies and various local and state government agencies, which are recognized as revenue over the lease term. As of September 30, 2018 and December 31, 2017, deferred revenue from rebates and incentives amounted to $31.8 million and $27.2 million, respectively.

We capitalize initial direct costs from the origination of solar energy system leases or power purchase agreements, which include the incremental cost of contract administration, referral fees and sales commissions, as an element of solar energy systems, leased and to be leased, net, and subsequently amortize these costs over the term of the related lease or power purchase agreement.

Services and Other Revenue

Services and other revenue consists of repair and maintenance services, service plans, merchandise, sales of used Tesla vehicles, sales of electric vehicle components to other manufacturers and sales of non-Tesla vehicle trade-ins. There were no significant changes to the timing or amount of revenue recognition as a result of our adoption of the new revenue standard.

Revenues related to repair and maintenance services are recognized over time as services are provided and extended service plans are recognized over the performance period of the service contract as the obligation represents a stand-ready obligation to the customer. We sell used vehicles, services, service plans, vehicle components and merchandise separately and thus use standalone selling prices as the basis for revenue allocation to the extent that these items are sold in transactions with other performance obligations. Payment for used vehicles, services, and merchandise are typically received at the point when control transfers to the customer or in accordance with payment terms customary to the business. Payments received for prepaid plans are refundable upon customer cancellation of the related contracts and are included within customer deposits on the consolidated balance sheet. Deferred revenue related to services and other revenue was immaterial as of September 30, 2018 and December 31, 2017.

Revenue by source

The following table disaggregates our revenue by major source (in thousands):

	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2018
Automotive sales without resale value guarantee	$ 5,297,024	$ 10,177,777
Automotive sales with resale value guarantee	391,784	1,056,438
Automotive regulatory credits	189,497	323,836
Energy generation and storage sales	259,288	791,785
Services and other	326,330	859,884
Total revenues from sales and services	6,463,923	13,209,720
Automotive leasing	220,461	633,713
Energy generation and storage leasing	140,029	391,962
Total revenues	$ 6,824,413	$ 14,235,395

Income Taxes

There are transactions that occur during the ordinary course of business for which the ultimate tax determination is uncertain. As of September 30, 2018 and December 31, 2017, the aggregate balances of our gross unrecognized tax benefits were $254.3 million and $198.7 million, respectively, of which $245.1 million and $191.0 million, respectively, would not give rise to changes in our effective tax rate since these tax benefits would increase a deferred tax asset that is currently fully offset by a valuation allowance.

On July 24, 2018, the Ninth Circuit Court of Appeals issued an opinion in Altera Corp. v. Commissioner requiring related parties in an intercompany cost-sharing arrangement to share expenses related to share-based compensation. This opinion reversed the prior decision of the United States Tax Court.

On August 7, 2018, the Ninth Circuit Court of Appeals, on its own motion, withdrew its July 24, 2018 opinion in Altera Corp. v. Commissioner. We do not expect this matter to have an impact on our consolidated financial statements.

Net Income (Loss) per Share of Common Stock Attributable to Common Stockholders

Basic net income (loss) per share of common stock attributable to common stockholders is calculated by dividing net income (loss) attributable to common stockholders by the weighted-average shares of common stock outstanding for the period. Potentially dilutive shares, which are based on the weighted-average shares of common stock underlying outstanding stock-based awards, warrants and convertible senior notes using the treasury stock method or the if-converted method, as applicable, are included when calculating diluted net income (loss) per share of common stock attributable to common stockholders when their effect is dilutive. Since we expect to settle in cash the principal outstanding under the 0.25% Convertible Senior Notes due in 2019, the 1.25% Convertible Senior Notes due in 2021 and the 2.375% Convertible Senior Notes due in 2022, we use the treasury stock method when calculating their potential dilutive effect, if any. Furthermore, in connection with the offerings of our bond hedges, we entered into convertible note hedges (see Note 10, Convertible and Long-Term Debt Obligations). However, our convertible note hedges are not included when calculating potentially dilutive shares since their effect is always anti-dilutive.

The following table presents the computation of basic and diluted net income (loss) per share of common stock attributable to common stockholders (in thousands, except per share data):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net income (loss) per share of common stock attributable to common stockholders, basic				
Net income (loss) attributable to common stockholders	$ 311,516	$ (619,376)	$(1,115,574)	$(1,286,050)
Weighted average shares used in computing net income (loss)	170,893	167,294	170,019	164,897

per share of common stock, basic				
Net income (loss) per share of common stock attributable to common stockholders, basic	$ 1.82	$ (3.70)	$(6.56)	$(7.80)
Net income (loss) per share of common stock attributable to common stockholders, diluted				
Net income (loss) attributable to common stockholders	$ 311,516	$ (619,376)	$(1,115,574)	$(1,286,050)
Weighted average shares used in computing net income (loss) per share of common stock, basic	170,893	167,294	170,019	164,897
Add:				
Stock-based awards	7,044	—	—	—
Warrants	259	—	—	—
Weighted average shares used in computing net income (loss) per share of common stock, diluted	178,196	167,294	170,019	164,897
Net income (loss) per share of common stock attributable to common stockholders, diluted	$ 1.75	$ (3.70)	$(6.56)	$(7.80)

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The following table presents the potentially dilutive shares that were excluded from the computation of diluted net income (loss) per share of common stock attributable to common stockholders, because their effect was anti-dilutive:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Stock-based awards	3,269,543	8,855,128	9,868,777	10,177,154
Convertible senior notes	1,498,987	1,908,572	1,501,726	2,559,810
Warrants	—	414,996	276,703	658,345

Restricted Cash and Deposits

We maintain certain cash balances restricted as to withdrawal or use. Our restricted cash is comprised primarily of cash as collateral for our sales to lease partners with a resale value guarantee, letters of credit, real estate leases, insurance policies, credit card borrowing facilities and certain operating leases. In addition, restricted cash includes cash received from certain fund investors that have not been released for use by us and cash held to service certain payments under various secured debt facilities. The following table totals cash and cash equivalents and restricted cash as reported on the consolidated balance sheets; the sums are presented on the consolidated statements of cash flows (in thousands):

	September 30, 2018	December 31, 2017	September 30, 2017	December 31, 2016
Cash and cash equivalents	$ 2,967,504	$ 3,367,914	$ 3,530,030	$ 3,393,216
Restricted cash	158,627	155,323	138,181	105,519
Restricted cash, net of current portion	396,835	441,722	408,544	268,165
Total as presented in the consolidated statements of cash flows	$ 3,522,966	$ 3,964,959	$ 4,076,755	$ 3,766,900

Concentration of Risk

Credit Risk

Financial instruments that potentially subject us to a concentration of credit risk consist of cash, cash equivalents, restricted cash, accounts receivable and interest rate swaps. Our cash balances are primarily invested in money market funds or on deposit at high credit quality financial institutions in the U.S. These deposits are typically in excess of insured limits. As of September 30, 2018, one entity represented 10% or more of our total accounts receivable balance. As of December 31, 2017, no entity represented 10% of our total accounts receivable balance. The risk of concentration for our interest rate swaps is mitigated by transacting with several highly-rated multinational banks.

Supply Risk

We are dependent on our suppliers, the majority of which are single source suppliers, and the inability of these suppliers to deliver necessary components of our products in a timely manner at prices, quality levels and volumes acceptable to us, or our inability to efficiently manage these components from these suppliers, could have a material adverse effect on our business, prospects, financial condition and operating results.

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Warranties

We provide a manufacturer's warranty on all new and used vehicles, production powertrain components and systems and energy storage products we sell. In addition, we also provide a warranty on the installation and components of the solar energy systems we sell for periods typically between 10 to 30 years. We accrue a warranty reserve for the products sold by us, which includes our best estimate of the projected costs to repair or replace items under warranties and recalls when identified. These estimates are based on actual claims incurred to date and an estimate of the nature, frequency and costs of future claims. These estimates are inherently uncertain given our relatively short history of sales, and changes to our historical or projected warranty experience may cause material changes to the warranty reserve in the future. The warranty reserve does not include projected warranty costs associated with our vehicles subject to lease accounting and our solar energy systems under lease contracts or power purchase agreements, as the costs to repair these warranty claims are expensed as incurred. The portion of the warranty reserve expected to be incurred within the next 12 months is included within accrued liabilities and other while the remaining balance is included within other long-term liabilities on the consolidated balance sheet. Due to the adoption of the new revenue standard, automotive sales with resale value guarantees that were previously recorded within operating lease assets require a corresponding warranty accrual, which is included in the table below. Warranty expense is recorded as a component of cost of revenues. Accrued warranty activity consisted of the following (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2018	2017	2018	2017
Accrued warranty—beginning of period	$524,009	$343,279	$401,790	$266,655
Warranty costs incurred	(54,089)	(39,481)	(148,374)	(87,881)
Net changes in liability for pre-existing warranties, including expirations and foreign exchange impact	(13,256)	4,768	(23,672)	7,239
Additional warranty accrued from adoption of the new revenue standard	—	—	37,139	—
Provision for warranty	187,805	60,156	377,586	182,709
Accrued warranty—end of period	$644,469	$368,722	$644,469	$368,722

For the three and nine months ended September 30, 2018, warranty costs incurred for vehicles accounted for as operating leases or collateralized debt arrangements were $4.6 million and $17.4 million, respectively, and for the three and nine months ended September 30, 2017, such costs were $10.8 million and $24.3 million, respectively.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued ASU No. 2014-09, Revenue from Contracts with Customers, to replace the existing revenue recognition criteria for contracts with customers. In August 2015, the FASB issued ASU No. 2015-14, Deferral of the Effective Date, to defer the effective date of ASU No. 2014-09 to interim and annual periods beginning after December 15, 2017. Subsequently, the FASB issued ASU No. 2016-08, Principal versus Agent Considerations, ASU No. 2016-10, Identifying Performance Obligations and Licensing, ASU

No. 2016-11, Rescission of SEC Guidance Because of Accounting Standards Updates 2014-09 and 2014-16 Pursuant to Staff Announcements at the March 3, 2016 EITF Meeting, ASU No. 2016-12, Narrow-Scope Improvements and Practical Expedients, and ASU No. 2016-20, Technical Corrections and Improvements, to clarify and amend the guidance in ASU No. 2014-09. We adopted the ASUs on January 1, 2018 on a modified retrospective basis through a cumulative adjustment to accumulated deficit. The adoption of the ASUs changed the timing of revenue recognition to be at delivery for certain vehicle sales to customers or leasing partners with a resale value guarantee, which will therefore qualify to be accounted for as sales with a right of return as opposed to the prior accounting as operating leases or collateralized lease borrowings. Upon adoption of the ASUs, we recorded a decrease to our beginning accumulated deficit of $623.2 million including income tax effects, which were immaterial. Refer to the Revenue Recognition section above for details.

In February 2016, the FASB issued ASU No. 2016-02, Leases, to require lessees to recognize all leases, with certain exceptions, on the balance sheet, while recognition on the statement of operations will remain similar to current lease accounting. The ASU also eliminates real estate-specific provisions and modifies certain aspects of lessor accounting. The ASU is effective for interim and annual periods beginning after December 15, 2018, with early adoption permitted. We currently expect to adopt the ASU on January 1, 2019. We will be required to recognize and measure leases existing at, or entered into after, the beginning of the earliest comparative period presented using a modified retrospective approach, with certain practical expedients available. We intend to elect most of the available practical expedients upon adoption. Upon adoption, we expect the consolidated balance sheet to include a right of use asset and liability related to substantially all of our lease arrangements. Further, solar leases and PPAs that commence after January 1, 2019, where we are the lessor and are currently accounted for as leases will no longer meet the definition of a lease with the adoption of this ASU and will instead be accounted for in accordance with ASC 606. We also expect most of our build-to-suit leases to be de-recognized upon adoption as our current build-to-suit leases will no longer qualify for build-to-suit accounting and will instead be recognized as operating leases under ASC 842. Subsequently, in July 2018, the FASB issued ASU No. 2018-10, Codification Improvements to Topic 842, Leases, and ASU No. 2018-11, Targeted Improvements, to clarify and amend the guidance in ASU No. 2016-02. We are continuing to assess the impact of adopting the ASUs on our financial position, results of operations and related disclosures. We anticipate the effect on the consolidated balance sheet to be material. The ASU is currently expected to have no material impact on the consolidated statement of operations.

In June 2016, the FASB issued ASU No. 2016-13, Measurement of Credit Losses on Financial Instruments, to require financial assets carried at amortized cost to be presented at the net amount expected to be collected based on historical experience, current conditions and forecasts. The ASU is effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. Adoption of the ASU is modified retrospective. We are currently obtaining an understanding of the ASU and plan to adopt the ASU on January 1, 2020.

In August 2016, the FASB issued ASU No. 2016-15, Classification of Certain Cash Receipts and Cash Payments, to reduce the diversity in practice with respect to the classification of certain cash receipts and cash payments on the statement of cash flows. The ASU is effective for interim and annual periods beginning after December 15, 2017. Adoption of the ASU is retrospective. We adopted the ASU on January 1, 2018, which did not have a material impact on the consolidated financial statements.

In November 2016, the FASB issued ASU No. 2016-18, Statement of Cash Flows: Restricted Cash, which requires entities to present the aggregate changes in cash, cash equivalents, restricted cash and restricted cash equivalents in the statement of cash flows. As a result, the statement of cash flows now presents restricted cash and restricted cash equivalents as a part of the beginning and ending balances of cash and cash equivalents. The ASU is effective for interim and annual periods beginning after December 15, 2017. Adoption of the ASU was retrospective. We adopted the ASU on January 1, 2018, which resulted in restricted cash being combined with unrestricted cash reconciling beginning and ending balances. Refer to the Restricted Cash and Deposits section above for the reconciliation.

In January 2017, the FASB issued ASU No. 2017-01, Clarifying the Definition of a Business, to clarify the definition of a business with the objective of assisting entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The ASU is effective for interim and annual periods beginning after December 15, 2017. Adoption of the ASU is prospective. We adopted the ASU on January 1, 2018, which we anticipate will result in more transactions being accounted for as asset acquisitions rather than business acquisitions. Adoption of the guidance had no impact on the financial statements for the nine months ended September 30, 2018.

In January 2017, the FASB issued ASU No. 2017-04, Simplifying the Test for Goodwill Impairment, to simplify the test for goodwill impairment by removing Step 2. An entity will, therefore, perform the goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognizing an impairment charge for the

amount by which the carrying amount exceeds the fair value, not to exceed the total amount of goodwill allocated to the reporting unit. An entity still has the option to perform a qualitative assessment to determine if the quantitative impairment test is necessary. The ASU is effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. Adoption of the ASU is prospective. We have not yet selected an adoption date, and the ASU is not currently expected to have a material impact on the consolidated financial statements.

In February 2017, the FASB issued ASU No. 2017-05, Gains and Losses from the Recognition of Nonfinancial Assets, to clarify the scope of asset derecognition guidance and accounting for partial sales of nonfinancial assets. The ASU is effective for interim and annual periods beginning after December 15, 2017. We adopted the ASU on January 1, 2018 on a modified retrospective basis through a cumulative adjustment to accumulated deficit. Upon adoption of the ASU, we recorded a decrease to our beginning accumulated deficit of $9.4 million.

In May 2017, the FASB issued ASU No. 2017-09, Scope of Modification Accounting, to provide guidance on which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting. The ASU is effective for interim and annual periods beginning after December 15, 2017. Adoption of the ASU is prospective. We adopted the ASU on January 1, 2018, which did not have a material impact on the consolidated financial statements.

In August 2017, the FASB issued ASU No. 2017-12, Targeted Improvements to Accounting for Hedging Activities, to simplify the application of current hedge accounting guidance. The ASU expands and refines hedge accounting for both non-financial and financial risk components and aligns the recognition and presentation of the effects of the hedging instrument and the hedged item in the financial statements. The ASU is effective for interim and annual periods beginning after December 15, 2018, with early adoption permitted. Adoption of the ASU is generally modified retrospective. We are currently obtaining an understanding of the ASU and plan to adopt the ASU on January 1, 2019.

In December 2017, the Securities and Exchange Commission staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act ("SAB 118"), which allows entities to record provisional amounts during a measurement period not exceeding one year from the enactment date of the Act. SAB 118 was codified by the FASB as part of ASU No. 2018-05, Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118. As of September 30, 2018, we have not made any measurement period adjustments. Such adjustments may be necessary in future periods due to, among other things, the significant complexity of the Act, additional regulatory guidance that may be issued by the Internal Revenue Service ("IRS"), changes to our analysis, interpretations or assumptions or actions that we may take as a result of the Act. We are continuing to gather information to assess the application of the Act and expect to complete our analysis within the prescribed measurement period. We do not expect any adjustments to have a material impact on the consolidated financial statements due to our historical worldwide loss position and the full valuation allowance on our net U.S. deferred tax assets.

In January 2018, the FASB issued ASU No. 2018-01, Land Easement Practical Expedient Transition to Topic 842, to permit an entity to elect a practical expedient to not evaluate land easements under ASC 842 that existed or expired before the entity's adoption of ASC 842 and that were not previously accounted for as leases under ASC 840. The ASU is effective for the same periods as ASU No. 2016-02, and the ASU is not currently expected to have a material impact on the consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that Is a Service Contract. The ASU aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). The ASU is effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. Adoption of the ASU is either retrospective or prospective. We are currently obtaining an understanding of the ASU and plan to adopt the ASU prospectively on January 1, 2020.

Note 3 – Intangible Assets

Information regarding our acquired intangible assets was as follows (in thousands):

	September 30, 2018				December 31, 2017			
	Gross Carrying Amount	Accumulated Amortization	Other	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Other	Net Carrying Amount
Finite-lived intangible assets:								

Developed technology	$152,431	$(35,049)	$1,393	$118,775	$125,889	$(19,317)	$1,847	$108,419
Trade names	45,275	(43,993)	197	1,479	45,275	(10,924)	261	34,612
Favorable contracts and leases, net	112,817	(14,470)	—	98,347	112,817	(8,639)	—	104,178
Other	35,559	(10,541)	831	25,849	34,099	(7,775)	1,137	27,461
Total finite-lived intangible assets	346,082	(104,053)	2,421	244,450	318,080	(46,655)	3,245	274,670
Indefinite-lived intangible assets:								
IPR&D	60,290	—	(13,264)	47,026	86,832	—	—	86,832
Total indefinite-lived intangible assets	60,290	—	(13,264)	47,026	86,832	—	—	86,832
Total intangible assets	$406,372	$(104,053)	$(10,843)	$291,476	$404,912	$(46,655)	$3,245	$361,502

The in-process research and development ("IPR&D"), which we acquired from SolarCity Corporation ("SolarCity"), is accounted for as an indefinite-lived asset until the completion or abandonment of the associated research and development efforts. If the research and development efforts are successfully completed and commercial feasibility is reached, the IPR&D would be amortized over its then estimated useful life. If the research and development efforts are not completed or are abandoned, the IPR&D might be impaired. The fair value of the IPR&D was estimated using the replacement cost method under the cost approach, based on the historical acquisition costs and expenses of the technology adjusted for estimated developer's profit, opportunity cost and obsolescence factor. During the three months ended June 30, 2018, we concluded that a portion of the IPR&D was not commercially feasible, and consequently recognized an abandonment loss of $13.3 million in research and development operating expenses. During the three months ended June 30, 2018, $26.5 million of IPR&D was put into production, and we expect to complete the remaining research and development efforts in the fourth quarter of 2018. The nature of the research and development efforts consists principally of planning, designing and testing the technology for viability in manufacturing solar cells and modules. If commercial feasibility is not achieved for the remaining IPR&D, we would likely look to other alternative technologies.

The costs associated with one of the trade names acquired by us has been fully amortized as we phased out the use of such trade name in our sales and marketing efforts.

Total future amortization expense for intangible assets was estimated as follows (in thousands):

Three months ending December 31, 2018	$8,782
2019	34,722
2020	32,789
2021	32,789
2022	32,789
Thereafter	102,579
Total	$244,450

Note 4 – Fair Value of Financial Instruments

ASC 820, Fair Value Measurements, states that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. The three-tiered fair value hierarchy, which prioritizes which inputs should be used in measuring fair value, is comprised of: (Level I) observable inputs such as quoted prices in active markets; (Level II) inputs other than quoted prices in active markets that are observable either directly or indirectly and (Level III) unobservable inputs for which there is little or no market data. The fair value hierarchy requires the use of observable market data when available in determining fair value. Our assets and liabilities that were measured at fair value on a recurring basis were as follows (in thousands):

	September 30, 2018				December 31, 2017			
	Fair Value	Level I	Level II	Level III	Fair Value	Level I	Level II	Level III

Money market funds (cash and cash equivalents & restricted cash)	$1,474,346	$1,474,346	$—	$—	$2,163,459	$2,163,459	$—	$—
Interest rate swaps, net	17,572	—	17,572	—	59	—	59	—
Total	$1,491,918	$1,474,346	$17,572	$—	$2,163,518	$2,163,459	$59	$—

All of our money market funds were classified within Level I of the fair value hierarchy because they were valued using quoted prices in active markets. Our interest rate swaps were classified within Level II of the fair value hierarchy because they were valued using alternative pricing sources or models that utilized market observable inputs, including current and forward interest rates. During the nine months ended September 30, 2018, there were no transfers between the levels of the fair value hierarchy.

Interest Rate Swaps

We enter into fixed-for-floating interest rate swap agreements to swap variable interest payments on certain debt for fixed interest payments, as required by certain of our lenders. We do not designate our interest rate swaps as hedging instruments. Accordingly, our interest rate swaps are recorded at fair value on the consolidated balance sheets within other assets or other long-term liabilities, with any changes in their fair values recognized as other income (expense), net, in the consolidated statements of operations and with any cash flows recognized as investing activities in the consolidated statements of cash flows. Our interest rate swaps outstanding were as follows (in thousands):

	September 30, 2018			December 31, 2017		
	Aggregate Notional Amount	Gross Asset at Fair Value	Gross Liability at Fair Value	Aggregate Notional Amount	Gross Asset at Fair Value	Gross Liability at Fair Value
Interest rate swaps	$469,707	$ 17,572	$ —	$496,544	$ 5,304	$ 5,245

Our interest rate swaps activity was as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Gross gains	$ 5,401	$ 440	$17,811	$2,989
Gross losses	39	1,641	1,244	12,836

Disclosure of Fair Values

Our financial instruments that are not re-measured at fair value include accounts receivable, MyPower customer notes receivable, rebates receivable, accounts payable, accrued liabilities, customer deposits, convertible senior notes, the 5.30% Senior Notes due in 2025, the participation interest, solar asset-backed notes, solar loan-backed notes, Solar Bonds and long-term debt. The carrying values of these financial instruments other than the convertible senior notes, the 5.30% Senior Notes due in 2025, the participation interest, the solar asset-backed notes, the solar loan-backed notes and automotive asset-backed notes approximate their fair values.

We estimate the fair value of the convertible senior notes and the 5.30% Senior Notes due in 2025 using commonly accepted valuation methodologies and market-based risk measurements that are indirectly observable, such as credit risk (Level II). In addition, we estimate the fair value of the participation interest, the solar asset-backed notes, the solar loan-backed notes and automotive asset-backed notes on rates currently offered for instruments with similar maturities and terms (Level III). The following table presents the estimated fair values and the carrying values (in thousands):

	September 30, 2018		December 31, 2017	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Convertible senior notes	$3,851,725	$4,051,562	$3,722,673	$4,488,651

Senior notes	$1,777,948	$1,516,500	$1,775,550	$1,732,500
Participation interest	$18,595	$18,067	$17,545	$17,042
Solar asset-backed notes	$857,721	$875,584	$880,415	$898,145
Solar loan-backed notes	$202,938	$209,236	$236,844	$248,149
Automotive asset-backed notes	$417,462	$418,209	$—	$—

Note 5 – Inventory

Our inventory consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Raw materials	$ 997,476	$ 821,396
Work in process	358,113	243,181
Finished goods	1,657,339	1,013,909
Service parts	301,199	185,051
Total	$ 3,314,127	$ 2,263,537

Finished goods inventory included vehicles in transit to fulfill customer orders, new vehicles available for immediate sale at our retail and service center locations, used Tesla vehicles and energy storage products. During the third quarter of 2018, we made the decision to utilize some of our fleet cars as service loaners on a long-term basis. As a result, we reclassified $72.8 million of finished goods inventory to property, plant and equipment.

For solar energy systems, leased and to be leased, we commence transferring component parts from inventory to construction in progress, a component of solar energy systems, leased and to be leased, once a lease contract with a customer has been executed and installation has been initiated. Additional costs incurred on the leased systems, including labor and overhead, are recorded within construction in progress.

We write-down inventory for any excess or obsolete inventories or when we believe that the net realizable value of inventories is less than the carrying value. During the three and nine months ended September 30, 2018, we recorded write-downs of $12.4 million and $54.3 million, respectively, in cost of revenues. During the three and nine months ended September 30, 2017, we recorded write-downs of $26.2 million and $93.0 million, respectively, in cost of revenues.

Note 6 – Solar Energy Systems, Leased and To Be Leased, Net

Solar energy systems, leased and to be leased, net, consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Solar energy systems leased to customers	$ 6,363,837	$ 6,009,977
Initial direct costs related to customer solar energy system lease acquisition costs	96,618	74,709
	6,460,455	6,084,686
Less: accumulated depreciation and amortization	(439,040)	(220,110)
	6,021,415	5,864,576
Solar energy systems under construction	118,542	243,847
Solar energy systems to be leased to customers	161,580	239,067
Solar energy systems, leased and to be leased – net (1)	$ 6,301,537	$ 6,347,490

(1) Included in solar energy systems, leased and to be leased, as of September 30, 2018 and December 31, 2017 was $36.0 million and $36.0 million, respectively, related to capital leased assets with an accumulated depreciation and amortization of $3.3 million and $1.9 million, respectively.

Note 7 – Property, Plant and Equipment

Our property, plant and equipment, net, consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Machinery, equipment, vehicles and office furniture	$ 5,950,086	$ 4,251,711
Tooling	1,384,382	1,255,952
Leasehold improvements	943,848	789,751

Land and buildings	3,995,992	2,517,247
Computer equipment, hardware and software	463,190	395,067
Construction in progress	963,136	2,541,588
	13,700,634	11,751,316
Less: Accumulated depreciation and amortization	(2,454,339)	(1,723,794)
Total	$ 11,246,295	$ 10,027,522

Construction in progress is primarily comprised of tooling and equipment related to the manufacturing of our vehicles and a portion of Gigafactory 1 construction. Completed assets are transferred to their respective asset classes, and depreciation begins when an asset is ready for its intended use. Construction in progress also includes certain build-to-suit lease costs incurred at our Buffalo manufacturing facility, referred to as Gigafactory 2. During the nine months ended September 30, 2018, $604.1 million of costs at Gigafactory 1 and $649.5 million of costs at Gigafactory 2 were transferred to land and buildings from construction in progress as assets were placed in service. Interest on outstanding debt is capitalized during periods of significant capital asset construction and amortized over the useful lives of the related assets. During the three and nine months ended September 30, 2018, we capitalized $12.0 million and $46.5 million, respectively, of interest. During the three and nine months ended September 30, 2017, we capitalized $37.3 million and $96.0 million, respectively, of interest.

As of September 30, 2018 and December 31, 2017, the table above included $1.68 billion and $1.63 billion, respectively, of gross build-to-suit lease assets. As of September 30, 2018 and December 31, 2017, the corresponding financing liabilities of $109.0 million and $14.9 million, respectively, were recorded in accrued liabilities and $1.62 billion and $1.67 billion, respectively, were recorded in other long-term liabilities on the consolidated balance sheets.

Depreciation and amortization expense during the three and nine months ended September 30, 2018 was $300.0 million and $797.0 million, respectively. Depreciation and amortization expense during the three and nine months ended September 30, 2017 was $197.5 million and $534.2 million, respectively. Gross property and equipment under capital leases as of September 30, 2018 and December 31, 2017 was $1.40 billion and $688.3 million, respectively. Accumulated depreciation on property and equipment under capital leases as of these dates was $193.7 million and $100.6 million, respectively.

Panasonic has partnered with us on Gigafactory 1 with investments in the production equipment that it uses to manufacture and supply us with battery cells. Under our arrangement with Panasonic, we plan to purchase the full output from their production equipment at negotiated prices. As these terms convey to us the right to use, as defined in ASC 840, Leases, their production equipment, we consider them to be leased assets when production commences. This results in us recording the cost of their production equipment within property, plant and equipment, net, on the consolidated balance sheets with a corresponding liability recorded to long-term debt and capital leases. For all suppliers and partners for which we plan to purchase the full output from their production equipment located at Gigafactory 1, we have applied similar accounting. As of September 30, 2018 and December 31, 2017, we had cumulatively capitalized costs of $1.14 billion and $473.3 million, respectively, on the consolidated balance sheets in relation to the production equipment under our Panasonic arrangement. We had cumulatively capitalized total costs for Gigafactory 1 of $4.47 billion and $3.15 billion as of September 30, 2018 and December 31, 2017, respectively.

Note 8 – Other Long-Term Liabilities

Other long-term liabilities consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Accrued warranty reserve, net of current portion	$ 459,398	$ 276,289
Build-to-suit lease liability, net of current portion	1,622,059	1,665,768
Deferred rent expense, net of current portion	57,643	46,820
Financing obligation, net of current portion	53,976	67,929
Liability for receipts from an investor	—	29,713
Sales return reserve, net of current portion	78,387	—
Other noncurrent liabilities	283,856	356,451
Total other long-term liabilities	$ 2,555,319	$ 2,442,970

The liability for receipts from an investor represents the amounts received from the investor under a lease pass-through fund arrangement for the monetization of ITCs for solar energy systems not yet placed in service. Due to the adoption of the new revenue standard, automotive sales with resale value guarantees that are now accounted for as sales with a right of return require a corresponding sales return reserve, which is included in accrued liabilities and other when the reserve is current and other long-term liabilities when the reserve is non-current on the consolidated balance sheets.

Note 9 – Customer Deposits

Customer deposits primarily consisted of cash payments from customers at the time they place an order or reservation for a vehicle or an energy product and any additional payments up to the point of delivery or the completion of installation, including the fair values of any customer trade-in vehicles that are applicable toward a new vehicle purchase. Customer deposit amounts and timing vary depending on the vehicle model, the energy product and the country of delivery. In the case of a vehicle, customer deposits are fully refundable up to the point the vehicle is placed into the production cycle. In the case of an energy generation or storage product, customer deposits are fully refundable prior to the entry into a purchase agreement or in certain cases for a limited time thereafter (in accordance with applicable laws). Customer deposits are included in current liabilities until refunded or until they are applied towards the customer's purchase balance. As of September 30, 2018 and December 31, 2017, we held $905.8 million and $853.9 million, respectively, in customer deposits. Due to the adoption of the new revenue standard, customer deposits now include prepayments on contracts that can be cancelled without significant penalties, such as vehicle maintenance plans, which were previously reported as deferred revenue. As a result, $55.6 million of the increase in the customer deposits balance was from the adoption of the new revenue standard.

Note 10 – Convertible and Long-Term Debt Obligations

The following is a summary of our debt as of September 30, 2018 (in thousands):

	Unpaid Principal Balance	Net Carrying Value Current	Net Carrying Value Long-Term	Unused Committed Amount*	Contractual Interest Rates	Contractual Maturity Date
Recourse debt:						
0.25% Convertible Senior Notes due in 2019 ("2019 Notes")	$920,000	$901,453	$—	$—	0.25%	March 2019
1.25% Convertible Senior Notes due in 2021 ("2021 Notes")	1,380,000	—	1,228,719	—	1.25%	March 2021
2.375% Convertible Senior Notes due in 2022 ("2022 Notes")	977,500	—	863,771	—	2.375%	March 2022
5.30% Senior Notes due in 2025 ("2025 Notes")	1,800,000	—	1,777,948	—	5.30%	August 2025
Credit Agreement	1,593,000	—	1,593,000	229,173	1% plus LIBOR	June 2020
Vehicle and other Loans	2,425	2,425	—	—	1.8%-7.6%	October 2018 - September 2019
2.75% Convertible Senior Notes due in 2018	230,000	231,687	—	—	2.75%	November 2018
1.625% Convertible Senior Notes due in 2019	566,000	—	535,668	—	1.625%	November 2019
Zero-Coupon Convertible Senior Notes due in 2020	103,000	—	90,427	—	0.0%	December 2020
Solar Bonds	25,283	678	24,841	—	2.6-5.75%	October 2018 - January 2031
Total recourse debt	7,597,208	1,136,243	6,114,374	229,173		
Non-recourse debt:						
Warehouse Agreements	659,388	110,204	549,184	440,612	3.5%	September 2020
Canada Credit Facility	59,227	29,297	29,930	—	3.6%-5.1%	November 2021
Term Loan due in December 2018	181,746	181,452	—	—	5.8%	December 2018
Term Loan due in January 2021	171,719	6,527	164,389	—	5.8%	January 2021
Revolving Aggregation Credit Facility	210,157	—	207,718	389,843	5.0 - 5.4%	December 2019
	31,501	13,281	18,048	—	7.9%	July 2021

Solar Renewable Energy Credit Loan Facility						
Cash equity debt	474,555	10,932	448,938	—	5.3-5.8%	July 2033- January 2035
Solar asset-backed notes	883,806	24,022	833,699	—	4.0 - 7.7%	November 2038- February 2048
Solar loan-backed notes	210,249	9,888	193,050	—	4.8-7.5%	September 2048- September 2049
Automotive asset-backed notes	417,462	311,629	105,833	—	2.3%-4.9%	December 2019 - March 2021
Total non-recourse debt	3,299,810	697,232	2,550,789	830,455		
Total debt	$10,897,018	$1,833,475	$8,665,163	$1,059,628		

The following is a summary of our debt as of December 31, 2017 (in thousands):

	Unpaid Principal Balance	Net Carrying Value		Unused Committed Amount*	Contractual Interest Rate	Contractual Maturity Date
		Current	Long-Term			
Recourse debt:						
1.50% Convertible Senior Notes due in 2018 ("2018 Notes")	$5,512	$5,442	$—	$—	1.50%	June 2018
2019 Notes	920,000	—	869,092	—	0.25%	March 2019
2021 Notes	1,380,000	—	1,186,131	—	1.25%	March 2021
2022 Notes	977,500	—	841,973	—	2.375%	March 2022
2025 Notes	1,800,000	—	1,775,550	—	5.30%	August 2025
Credit Agreement	1,109,000	—	1,109,000	729,929	1% plus LIBOR	June 2020
Vehicle and other Loans	16,205	15,944	261	—	1.8% - 7.6%	January 2018-September 2019
2.75% Convertible Senior Notes due in 2018	230,000	222,171	—	—	2.75%	November 2018
1.625% Convertible Senior Notes due in 2019	566,000	—	511,389	—	1.625%	November 2019
Zero-Coupon Convertible Senior Notes due in 2020	103,000	—	86,475	—	0.0%	December 2020
Related Party Promissory Notes due in February 2018	100,000	100,000	—	—	6.5%	February 2018
Solar Bonds	32,016	7,008	24,940	—	2.6% - 5.8%	March 2018-January 2031
Total recourse debt	7,239,233	350,565	6,404,811	729,929		
Non-recourse debt:						
Warehouse Agreements	673,811	195,382	477,867	426,189	3.1%	September 2019
Canada Credit Facility	86,708	31,106	55,603	—	3.6% - 5.1%	November 2021
Term Loan due in December 2018	157,095	156,884	—	19,534	4.8%	December 2018
Term Loan due in January 2021	176,290	5,885	169,352	—	4.9%	January 2021
Revolving Aggregation Credit Facility	161,796	—	158,733	438,204	4.1% - 4.5%	December 2019
Solar Renewable Energy Credit Loan Facility	38,575	15,858	22,774	—	7.3%	July 2021
Cash equity debt	482,133	12,334	454,421	—	5.3% - 5.8%	July 2033-January 2035
Solar asset-backed notes	907,241	23,829	856,586	—		

					4.0% - 7.7%	November 2038-February 2048
Solar loan-backed notes	244,498	8,006	228,838	—	4.8% - 7.5%	September 2048-September 2049
Total non-recourse debt	2,928,147	449,284	2,424,174	883,927		
Total debt	$10,167,380	$799,849	$8,828,985	$1,613,856		

* Unused committed amounts under some of our credit facilities and financing funds are subject to satisfying specified conditions prior to draw-down (such as pledging to our lenders sufficient amounts of qualified receivables, inventories, leased vehicles and our interests in those leases, solar energy systems and the associated customer contracts, our interests in financing funds or various other assets). Upon draw-down of any unused committed amounts, there are no restrictions on use of available funds for general corporate purposes.

Recourse debt refers to debt that is recourse to our general assets. Non-recourse debt refers to debt that is recourse to only specified assets of our subsidiaries. The differences between the unpaid principal balances and the net carrying values are due to convertible senior note conversion features, debt discounts or deferred financing costs. As of September 30, 2018, we were in compliance with all financial debt covenants, which include minimum liquidity and expense-coverage balances and ratios.

2018 Notes, Bond Hedges and Warrant Transactions

During the first quarter of 2018, $5.2 million in aggregate principal amount of the 2018 Notes were converted for $5.2 million in cash and 25,745 shares of our common stock. As a result, we recognized a loss on debt extinguishment of less than $0.1 million.

As of June 30, 2018, the 2018 Notes have been completely settled.

Credit Agreement

In June 2015, we entered into a senior asset-based revolving credit agreement (the "Credit Agreement") with a syndicate of banks. Borrowed funds bear interest, at our option, at an annual rate of (a) 1% plus LIBOR or (b) the highest of (i) the federal funds rate plus 0.50%, (ii) the lenders' "prime rate" or (iii) 1% plus LIBOR. The fee for undrawn amounts is 0.25% per annum. The Credit Agreement is secured by certain of our accounts receivable, inventory and equipment. Availability under the Credit Agreement is based on the value of such assets, as reduced by certain reserves.

On May 3, 2018, the Company and its subsidiary Tesla Motors Netherlands B.V. entered into the Ninth Amendment (the "Ninth Amendment") to the Credit Agreement. The Ninth Amendment amended the Credit Agreement to permit Tesla to include in its discretion: (i) the Fremont Factory facilities in the U.S. borrowing base and/or (ii) vehicles in and in-transit to Belgium in the Dutch borrowing base.

Related Party Promissory Notes

In February 2018, we fully repaid the $17.5 million in aggregate principal amount of 6.50% promissory notes held by SolarCity's former Chief Executive Officer that matured. On February 14, 2018, our Chief Executive Officer and SolarCity's former Chief Technology Officer exchanged their $82.5 million (collectively) in aggregate principal amount of 6.50% promissory notes due in February 2018 for 6.50% promissory notes due in August 2018 in the same amounts. These promissory notes were fully repaid in August 2018.

Warehouse Agreements

On February 6, 2018, we repaid $453.6 million of the principal outstanding under the Warehouse Agreements. On August 16, 2018, the Warehouse Agreements were amended to extend the availability period from August 17, 2018 to August 16, 2019 and extend the maturity date from September 2019 to September 2020.

Automotive Asset-backed Notes, Series 2018-A

On February 6, 2018, we transferred receivables related to certain leased vehicles into a special purpose entity ("SPE") and issued $546.1 million in aggregate principal amount of Automotive Asset-backed Notes, Series 2018-A, backed by these automotive assets to investors. The SPE is wholly owned by us and is consolidated in the financial statements. The proceeds from the issuance, net of discounts and fees, were $543.1 million. The cash flows generated by these automotive assets are used to service the monthly principal and interest payments on the Automotive Asset-backed Notes and satisfy the SPE's expenses, and any remaining cash is distributed to one of our wholly owned

subsidiaries. We recognize revenue earned from the associated customer lease contracts in accordance with our revenue recognition policy. The SPE's assets and cash flows are not available to our other creditors, and the creditors of the SPE, including the Automotive Asset-backed Note holders, have no recourse to our other assets. A third-party contracted with us to provide administrative and collection services for these automotive assets.

Interest Incurred

The following table presents the interest incurred on our convertible senior notes with cash conversion features, which include the 2018 Notes, the 2019 Notes, the 2021 Notes and the 2022 Notes (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Contractual interest coupon	$ 10,779	$ 10,899	$ 31,915	$ 28,306
Amortization of debt issuance costs	1,677	1,759	4,934	5,274
Amortization of debt discounts	31,367	29,888	91,751	83,852
Total	$ 43,823	$ 42,546	$ 128,600	$ 117,432

Note 11 – Equity Incentive Plans

In 2010, we adopted the 2010 Equity Incentive Plan (the "2010 Plan"). The 2010 Plan provides for the granting of stock options, RSUs and stock purchase rights to our employees, directors and consultants. Stock options granted under the 2010 Plan may be either incentive stock options or nonqualified stock options. Incentive stock options may only be granted to our employees. Nonqualified stock options may be granted to our employees, directors and consultants. Generally, our stock options and RSUs vest over up to four years and are exercisable over a maximum period of 10 years from their grant dates. Vesting typically terminates when the employment or consulting relationship ends.

As of September 30, 2018, 10,069,978 shares were reserved and available for issuance under the 2010 Plan.

2018 CEO Performance Award

In March 2018, our stockholders approved the Board of Directors' grant of 20,264,042 stock option awards to our CEO (the "2018 CEO Performance Award"). The 2018 CEO Performance Award consists of 12 vesting tranches with a vesting schedule based entirely on the attainment of both operational milestones (performance conditions) and market conditions, assuming continued employment either as the CEO or as both Executive Chairman and Chief Product Officer and service through each vesting date. Each of the 12 vesting tranches of the 2018 CEO Performance Award will vest upon certification by the Board of Directors that both (i) the market capitalization milestone for such tranche, which begins at $100 billion for the first tranche and increases by increments of $50 billion thereafter, and (ii) any one of the following eight operational milestones focused on revenue or eight operational milestones focused on Adjusted EBITDA have been met for the previous four consecutive fiscal quarters. Adjusted EBITDA is defined as net income (loss) attributable to common stockholders before interest expense, provision (benefit) for income taxes, depreciation and amortization and stock-based compensation.

Total Revenue (in billions)	Adjusted EBITDA (in billions)
$20.0	$1.5
$35.0	$3.0

$55.0	$4.5
$75.0	$6.0
$100.0	$8.0
$125.0	$10.0
$150.0	$12.0
$ 175.0	$14.0

As of September 30, 2018, the following operational milestones were considered probable of achievement:

- Total revenue of $20.0 billion;
- Adjusted EBITDA of $1.5 billion; and
- Adjusted EBITDA of $3.0 billion.

Stock-based compensation expense associated with the 2018 CEO Performance Award is recognized over the longer of the expected achievement period for each pair of market capitalization or operational milestones, beginning at the point in time when the relevant operational milestone is considered probable of being met. If additional operational milestones become probable, stock-based compensation expense will be recorded in the period it becomes probable including cumulative catch-up expense for the service provided since the grant date. The market capitalization milestone period and the valuation of each tranche are determined using a Monte Carlo simulation and is used as the basis for determining the expected achievement period. The probability of meeting an operational milestone is based on a subjective assessment of our future financial projections. Even though no tranches of the 2018

CEO Performance Award vest unless a market capitalization and a matching operational milestone are both achieved, stock-based compensation expense is recognized only when an operational milestone is considered probable of achievement regardless of how much additional market capitalization must be achieved in order for a tranche to vest. At our current market capitalization, even the first tranche of the 2018 CEO Performance Award will not vest unless our market capitalization were to more than double from the current level and stay at that increased level for a sustained period of time. Additionally, stock-based compensation represents a non-cash expense and is recorded as a selling, general, and administrative operating expense on our consolidated statement of operations.

As of September 30, 2018, we had $654.3 million of total unrecognized stock-based compensation expense for the operational milestones that were considered probable of achievement, which will be recognized over a weighted-average period of 3.3 years. As of September 30, 2018, we had unrecognized stock-based compensation expense of $1.51 billion for the operational milestones that were considered not probable of achievement. From March 21, 2018, when the grant was approved by our stockholders, through September 30, 2018, we recorded stock-based compensation expense of $118.6 million related to the 2018 CEO Performance Award. For the three months ended September 30, 2018, we recorded stock-based compensation expense of $56.3 million related to this award.

2014 Performance-Based Stock Option Awards

In 2014, to create incentives for continued long-term success beyond the Model S program and to closely align executive pay with our stockholders' interests in the achievement of significant milestones by us, the Compensation Committee of our Board of Directors granted stock option awards to certain employees (excluding our CEO) to purchase an aggregate of 1,073,000 shares of our common stock. Each award consisted of the following four vesting tranches with the vesting schedule based entirely on the attainment of the future performance milestones, assuming continued employment and service through each vesting date:

- 1/4th of each award vests upon completion of the first Model X production vehicle;
- 1/4th of each award vests upon achieving aggregate production of 100,000 vehicles in a trailing 12-month period;
- 1/4th of each award vests upon completion of the first Model 3 production vehicle; and
- 1/4th of each award vests upon achieving an annualized gross margin of greater than 30% for any three-year period.

As of September 30, 2018, the following performance milestones had been achieved:

- Completion of the first Model X production vehicle;
- Completion of the first Model 3 production vehicle; and
- Aggregate production of 100,000 vehicles in a trailing 12-month period.

We began recognizing stock-based compensation expense as each performance milestone becomes probable of achievement. As of September 30, 2018, we had unrecognized stock-based compensation expense of $11.2 million for the performance milestone that was considered not probable of achievement. For the three and nine months ended September 30, 2018, we did not record any additional stock-based compensation related to these awards. For the three and nine months ended September 30, 2017, we recorded stock-based compensation expense of $0.5 million and $6.8 million, respectively, related to these awards.

2012 CEO Performance Award

In August 2012, our Board of Directors granted 5,274,901 stock option awards to our CEO (the "2012 CEO Performance Award"). The 2012 CEO Performance Award consists of 10 vesting tranches with a vesting schedule based entirely on the attainment of both performance conditions and market conditions, assuming continued employment and service through each vesting date. Each vesting tranche requires a combination of a pre-determined performance milestone and an incremental increase in our market capitalization of $4.00 billion, as compared to our

initial market capitalization of $3.20 billion at the time of grant. As of September 30, 2018, the market capitalization conditions for all of the vesting tranches and the following performance milestones had been achieved:

- Successful completion of the Model X alpha prototype;
- Successful completion of the Model X beta prototype;
- Completion of the first Model X production vehicle;
- Aggregate production of 100,000 vehicles;
- Successful completion of the Model 3 alpha prototype;
- Successful completion of the Model 3 beta prototype;
- Completion of the first Model 3 production vehicle;

- Aggregate production of 200,000 vehicles; and
- Aggregate production of 300,000 vehicles.

We began recognizing stock-based compensation expense as each milestone becomes probable of achievement. As of September 30, 2018, we had unrecognized stock-based compensation expense of $5.7 million for the performance milestone that was considered not probable of achievement. For the three months ended September 30, 2018, we recorded no stock-based compensation expense related to the 2012 CEO Performance Award. For the nine months ended September 30, 2018, we recorded $0.1 million related to this award. For the three and nine months ended September 30, 2017, we recorded stock-based compensation expense of $1.2 million and $4.3 million, respectively, related to this award.

Our CEO earns a base salary that reflects the currently applicable minimum wage requirements under California law, and he is subject to income taxes based on such base salary. However, he has never accepted and currently does not accept his salary.

Summary Stock-Based Compensation Information

The following table summarizes our stock-based compensation expense by line item in the consolidated statements of operations (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Cost of sales	$25,037	$10,166	$59,203	$27,663
Research and development	65,718	51,066	192,762	158,052
Selling, general and administrative	113,973	51,421	287,869	146,697
Restructuring and other	—	—	3,877	—
Total	$204,728	$112,653	$543,711	$332,412

We realized no income tax benefit from stock option exercises in each of the periods presented due to cumulative losses and valuation allowances. As of September 30, 2018, we had $1.53 billion of total unrecognized stock-based compensation expense related to non-performance awards, which will be recognized over a weighted-average period of 2.9 years.

Note 12 – Commitments and Contingencies

Non-Cancellable Leases

We have entered into various non-cancellable operating lease agreements for certain of our offices, manufacturing and warehouse facilities, retail and service locations, equipment, vehicles, solar energy systems and Supercharger sites, throughout the world.

Build-to-Suit Lease Arrangement in Buffalo, New York

We have a build-to-suit lease arrangement with the Research Foundation for the State University of New York (the "SUNY Foundation") where the SUNY Foundation will construct a solar cell and panel manufacturing facility, referred

to as Gigafactory 2, with our participation in the design and construction, install certain utilities and other improvements and acquire certain manufacturing equipment designated by us to be used in the manufacturing facility. During the three months ended March 31, 2018, we began production at the manufacturing facility, although construction has not been fully completed as of September 30, 2018.

Legal Proceedings

Securities Litigation Relating to SolarCity's Financial Statements and Guidance

On March 28, 2014, a purported stockholder class action was filed in the U.S. District Court for the Northern District of California against SolarCity and two of its officers. The complaint alleges violations of federal securities laws and seeks unspecified compensatory damages and other relief on behalf of a purported class of purchasers of SolarCity's securities from March 6, 2013 to March 18, 2014. After a series of amendments to the original complaint, the District Court dismissed the amended complaint and entered a judgment in our favor on August 9, 2016. The plaintiffs filed a notice of appeal, and on December 4, 2017, the Court heard oral argument on the appeal. On March 8, 2018, the Court upheld the District Court ruling of dismissal and judgment in our favor. The case is concluded.

Securities Litigation Relating to the SolarCity Acquisition

Between September 1, 2016 and October 5, 2016, seven lawsuits were filed in the Court of Chancery of the State of Delaware by purported stockholders of Tesla challenging our acquisition of SolarCity. Following consolidation, the lawsuit names as defendants the members of Tesla's board of directors and alleges, among other things, that board members breached their fiduciary duties in connection with the acquisition. The complaint asserts both derivative claims and direct claims on behalf of a purported class and seeks, among other relief, unspecified monetary damages, attorneys' fees, and costs. On January 27, 2017, defendants filed a motion to dismiss the operative complaint. Rather than respond to the defendants' motion, the plaintiffs filed an amended complaint. On March 17, 2017, defendants filed a motion to dismiss the amended complaint. On December 13, 2017, the Court heard oral argument on the motion. On March 28, 2018, the Court denied defendants' motion to dismiss. Defendants filed a request for interlocutory appeal, but the Delaware Supreme Court denied that request, electing not to hear an appeal at this early stage of the case. Defendants filed their answer on May 18, 2018. This case will now proceed.

These plaintiffs and others filed parallel actions in the U.S. District Court for the District of Delaware on April 21, 2017. Those actions have been consolidated and are stayed pending the Chancery Court litigation. They include claims for violations of the federal securities laws and breach of fiduciary duties by Tesla's board of directors. That action is stayed pending the Chancery Court litigation.

We believe that claims challenging the SolarCity acquisition are without merit and intend to defend against them vigorously. We are unable to estimate the possible loss or range of loss, if any, associated with these claims.

Securities Litigation Relating to Production of Model 3 Vehicles

On October 10, 2017, a purported stockholder class action was filed in the U.S. District Court for the Northern District of California against Tesla, two of its current officers, and a former officer. The complaint alleges violations of federal securities laws, and seeks unspecified compensatory damages and other relief on behalf of a purported class of purchasers of Tesla securities from May 4, 2016 to October 6, 2017. The lawsuit claims that Tesla supposedly made materially false and misleading statements regarding the Company's preparedness to produce Model 3 vehicles. Plaintiffs filed an amended complaint on March 23, 2018, and defendants filed a motion to dismiss on May 25, 2018. The court granted defendant's motion to dismiss with leave to amend. Plaintiffs filed their amended complaint on September 28, 2018. We intend to file a motion to dismiss that complaint as well. We believe that the claims are without merit and intend to defend against this lawsuit vigorously. We are unable to estimate the possible loss or range of loss, if any, associated with this lawsuit.

Litigation Relating to 2018 CEO Performance Award

On June 4, 2018, a purported Tesla stockholder filed a putative class and derivative action in the Delaware Court of Chancery alleging that Tesla's directors breached their fiduciary duties by approving the stock-based compensation plan. The complaint seeks, among other things, monetary damages and rescission or reformation of the stock-based compensation plan. On August 31, 2018, defendants filed a motion to dismiss the complaint. We believe the claims asserted in this lawsuit are without merit and intend to defend against them vigorously.

Securities Litigation related to Potential Going Private Transaction

Between August 10, 2018 and September 6, 2018, nine purported stockholder class actions were filed against Tesla and Elon Musk in connection with Elon Musk's August 7, 2018 Twitter post that he was considering taking Tesla private. All of the suits are now pending in the United States District Court for the Northern District of California. Although the complaints vary in certain respects, they each purport to assert claims for violations of federal securities

laws related to Mr. Musk's statement and seek unspecified compensatory damages and other relief on behalf of a purported class of purchasers of Tesla's securities. We anticipate that, following the lead plaintiff process, the lead plaintiff will file a consolidated amended complaint. We believe that the claims have no merit and intend to defend against them vigorously. We are unable to estimate the potential loss, or range of loss, associated with these claims.

On October 17 and 25, 2018, derivative lawsuits were filed in Delaware Court of Chancery against Mr. Musk and the members of Tesla's Board in relation to statements made and actions connected to a potential going private transaction. Also on October 25, 2018, a third derivative lawsuit was filed in federal court in Delaware against Mr. Musk and the members of the Board. We believe that the claims have no merit and intend to defend against them vigorously. The Company is unable to estimate the potential loss, or range of loss, associated with these claims.

Settlement with SEC related to Potential Going Private Transaction

On October 16, 2018, the U.S. District Court for the Southern District of New York entered a final judgment approving the terms of a settlement filed with the Court on September 29, 2018, in connection with the actions taken by the U.S. Securities and Exchange Commission (the "SEC") relating to Elon Musk's prior statement that he was considering taking Tesla private. Without

admitting or denying any of the SEC's allegations, and with no restriction on Mr. Musk's ability to serve as an officer or director on the Board (other than as its Chair), we and Mr. Musk agreed, among other things, to pay civil penalties of $20 million each and that we will appoint an independent director as Chair of the Board for at least three years, appoint two additional independent directors to the Board, and further enhance our disclosure controls and other corporate governance-related matters.

Certain Investigations and Other Matters

We receive requests for information from regulators and governmental authorities, such as the National Highway Traffic Safety Administration, the National Transportation Safety Board, the SEC, the Department of Justice ("DOJ") and various state agencies. We routinely cooperate with such regulatory and governmental requests.

In particular, the SEC has issued subpoenas to Tesla in connection with (a) Mr. Musk's prior statement that he was considering taking Tesla private and (b) certain projections that we made for Model 3 production rates during 2017 and other public statements relating to Model 3 production. The DOJ has also asked us to voluntarily provide it with information about each of these matters and is investigating. Aside from the settlement with the SEC relating to Mr. Musk's statement that he was considering taking Tesla private, there have not been any developments in these matters that we deem to be material, and to our knowledge no government agency in any ongoing investigation has concluded that any wrongdoing occurred. As is our normal practice, we have been cooperating and will continue to cooperate with government authorities. We cannot predict the outcome or impact of any ongoing matters. Should the government decide to pursue an enforcement action, there exists the possibility of a material adverse impact on our business, results of operation, prospects, cash flows, and financial position.

We are also subject to various other legal proceedings and claims that arise from the normal course of business activities. If an unfavorable ruling or development were to occur, there exists the possibility of a material adverse impact on our business, results of operations, prospects, cash flows, financial position and brand.

Indemnification and Guaranteed Returns

We are contractually obligated to compensate certain fund investors for any losses that they may suffer in certain limited circumstances resulting from reductions in U.S. Treasury grants or ITCs. Generally, such obligations would arise as a result of reductions to the value of the underlying solar energy systems as assessed by the U.S. Treasury Department for purposes of claiming U.S. Treasury grants or as assessed by the IRS for purposes of claiming ITCs or U.S. Treasury grants. For each balance sheet date, we assess and recognize, when applicable, a distribution payable for the potential exposure from this obligation based on all the information available at that time, including any guidelines issued by the U.S. Treasury Department on solar energy system valuations for purposes of claiming U.S. Treasury grants and any audits undertaken by the IRS. We believe that any payments to the fund investors in excess of the amounts already recognized by us, which were immaterial, for this obligation are not probable based on the facts known at the filing date.

The maximum potential future payments that we could have to make under this obligation would depend on the difference between the fair values of the solar energy systems sold or transferred to the funds as determined by us and the values that the U.S. Treasury Department would determine as fair value for the systems for purposes of claiming U.S. Treasury grants or the values the IRS would determine as the fair value for the systems for purposes of claiming ITCs or U.S. Treasury grants. We claim U.S. Treasury grants based on guidelines provided by the U.S. Treasury department and the statutory regulations from the IRS. We use fair values determined with the assistance of independent third-party appraisals commissioned by us as the basis for determining the ITCs that are passed-through

to and claimed by the fund investors. Since we cannot determine future revisions to U.S. Treasury Department guidelines governing solar energy system values or how the IRS will evaluate system values used in claiming ITCs or U.S. Treasury grants, we are unable to reliably estimate the maximum potential future payments that it could have to make under this obligation as of each balance sheet date.

We are eligible to receive certain state and local incentives that are associated with renewable energy generation. The amount of incentives that can be claimed is based on the projected or actual solar energy system size and/or the amount of solar energy produced. We also currently participate in one state's incentive program that is based on either the fair market value or the tax basis of solar energy systems placed in service. State and local incentives received are allocated between us and fund investors in accordance with the contractual provisions of each fund. We are not contractually obligated to indemnify any fund investor for any losses they may incur due to a shortfall in the amount of state or local incentives actually received.

Our lease pass-through financing funds have a one-time lease payment reset mechanism that occurs after the installation of all solar energy systems in a fund. As a result of this mechanism, we may be required to refund master lease prepayments previously received from investors. Any refunds of master lease prepayments would reduce the lease pass-through financing obligation.

Letters of Credit

As of September 30, 2018, we had $143.1 million of unused letters of credit outstanding.

Note 13 – Variable Interest Entity Arrangements

We have entered into various arrangements with investors to facilitate the funding and monetization of our solar energy systems and vehicles. In particular, our wholly owned subsidiaries and fund investors have formed and contributed cash and assets into various financing funds and entered into related agreements. We have determined that the funds are variable interest entities ("VIEs") and we are the primary beneficiary of these VIEs by reference to the power and benefits criterion under ASC 810, Consolidation. We have considered the provisions within the agreements, which grant us the power to manage and make decisions that affect the operation of these VIEs, including determining the solar energy systems or vehicles and the associated customer contracts to be sold or contributed to these VIEs, redeploying solar energy systems or vehicles and managing customer receivables. We consider that the rights granted to the fund investors under the agreements are more protective in nature rather than participating.

As the primary beneficiary of these VIEs, we consolidate in the financial statements the financial position, results of operations and cash flows of these VIEs, and all intercompany balances and transactions between us and these VIEs are eliminated in the consolidated financial statements. Cash distributions of income and other receipts by a fund, net of agreed upon expenses, estimated expenses, tax benefits and detriments of income and loss and tax credits, are allocated to the fund investor and our subsidiary as specified in the agreements.

Generally, our subsidiary has the option to acquire the fund investor's interest in the fund for an amount based on the market value of the fund or the formula specified in the agreements.

Upon the sale or liquidation of a fund, distributions would occur in the order and priority specified in the agreements.

Pursuant to management services, maintenance and warranty arrangements, we have been contracted to provide services to the funds, such as operations and maintenance support, accounting, lease servicing and performance reporting. In some instances, we have guaranteed payments to the fund investors as specified in the agreements. A fund's creditors have no recourse to our general credit or to that of other funds. None of the assets of the funds had been pledged as collateral for their obligations.

The aggregate carrying values of the VIEs' assets and liabilities, after elimination of any intercompany transactions and balances, in the consolidated balance sheets were as follows (in thousands):

	September 30, 2018	December 31, 2017
Assets		
Current assets		
Cash and cash equivalents	$ 73,117	$ 55,425
Restricted cash	76,569	33,656
Accounts receivable, net	25,932	18,204
Prepaid expenses and other current assets	9,306	9,018
Total current assets	184,924	116,303
Operating lease vehicles, net	802,083	337,089
Solar energy systems, leased and to be leased, net	5,091,612	5,075,321
Restricted cash, net of current portion	54,656	36,999
Other assets	56,794	29,555
Total assets	$ 6,190,069	$ 5,595,267
Liabilities		
Current liabilities		

Accounts payable	$ 32	$ 32
Accrued liabilities and other	111,360	51,652
Deferred revenue	21,537	59,412
Customer deposits	443	726
Current portion of long-term debt and capital leases	614,401	196,531
Total current liabilities	747,773	308,353
Deferred revenue, net of current portion	219,312	323,919
Long-term debt and capital leases, net of current portion	1,103,772	625,934
Other long-term liabilities	28,801	30,536
Total liabilities	$ 2,099,658	$ 1,288,742

Note 14 – Related Party Transactions

Related party balances were comprised of the following (in thousands):

	September 30, 2018	December 31, 2017
Solar Bonds issued to related parties	$ 100	$ 100
Convertible senior notes due to related parties	$ 3,000	$ 3,000
Promissory notes due to related parties	$ —	$ 100,000
Due to related parties (primarily accrued interest, included in accrued liabilities and other)	$ 239	$ 2,509

The related party transactions were primarily from debt held by our CEO, SolarCity's former CEO and SolarCity's former Chief Technology Officer. During the nine months ended September 30, 2018, the promissory notes payable to such parties were fully repaid. Refer to Note 10, Convertible and Long-Term Debt Obligations.

Note 15 – Segment Reporting and Information about Geographic Areas

We have two operating and reportable segments: (i) automotive and (ii) energy generation and storage. The automotive segment includes the design, development, manufacturing, sales, and leasing of electric vehicles as well as sales of automotive regulatory credits. Additionally, the automotive segment is also comprised of services and other, which includes after-sales vehicle services, used vehicle sales, powertrain sales and services by Tesla Grohmann Automation GmbH ("Grohmann"). The energy generation and storage segment includes the design, manufacture, installation, sales, and leasing of solar energy generation and energy storage products. Our CODM does not evaluate operating segments using asset or liability information. The following table presents revenues and gross margins by reportable segment (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Automotive segment				
Revenues	$ 6,425,096	$ 2,667,170	$ 13,051,648	$ 7,652,273
Gross profit	$ 1,454,902	$ 368,923	$ 2,451,564	$ 1,558,295
Energy generation and storage segment				
Revenues	$ 399,317	$ 317,505	$ 1,183,747	$ 818,229
Gross profit	$ 68,763	$ 80,217	$ 147,557	$ 225,406

The following table presents revenues by geographic area based on where our products are delivered (in thousands):

	Three Months Ended September 30,	Nine Months Ended September 30,

	2018	2017	2018	2017
United States	$ 5,132,948	$ 1,582,143	$ 9,248,776	$ 4,380,393
China	409,300	563,561	1,445,232	1,531,082
Netherlands	273,750	67,037	626,835	264,186
Norway	224,481	225,461	611,222	482,965
Other	783,934	546,473	2,303,330	1,811,876
Total	$ 6,824,413	$ 2,984,675	$ 14,235,395	$ 8,470,502

The following table presents long-lived assets by geographic area (in thousands):

	September 30, 2018	December 31, 2017
United States	$ 16,716,027	$ 15,587,979
International	831,805	787,033
Total	$ 17,547,832	$ 16,375,012

Note 16 – Restructuring and Other

During the second quarter of 2018, we carried-out certain restructuring actions in order to reduce costs and improve efficiency. As a result, in the three months ended June 30, 2018, we recognized $34.0 million of one-time employee termination expenses and estimated losses from sub-leasing a certain facility. The employee termination expenses of $26.2 million were substantially paid by the end of the third quarter of 2018, while the remaining amounts were non-cash. Also included within restructuring and other activities was $56.1 million of expenses (materially all of which were non-cash) from restructuring the energy generation and storage segment, which comprised of disposals of certain tangible assets, the shortening of the useful life of a trade name intangible asset and a contract termination penalty. In addition, we concluded that a small portion of the IPR&D is not commercially feasible. Consequently, we recognized an impairment loss of $13.3 million in the three months ended June 30, 2018 (see Note 3, Intangible Assets).

In October 2018, a final court order was entered approving the terms of a settlement in connection with the SEC's legal actions relating to Mr. Musk's prior consideration during the third quarter of 2018 of a take-private proposal for Tesla. Consequently, we recognized settlement and legal expenses of $25.8 million in the three months ended September 30, 2018 (see Note 12, Commitments and Contingencies). These expenses are expected to be substantially paid by the end of the fourth quarter of 2018.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with the consolidated financial statements and the accompanying notes included elsewhere in this Quarterly Report on Form 10-Q.

Overview

Our mission is to accelerate the world's transition to sustainable energy. We design, develop, manufacture, lease and sell high-performance fully electric vehicles, solar energy generation systems and energy storage products. We also offer maintenance, installation, operation and other services related to our products.

Automotive

Our production vehicle fleet includes our Model S premium sedan and our Model X sport utility vehicle, which are our highest-performance vehicles, and our Model 3, a lower-priced sedan designed for the mass market. We continue to enhance our vehicle offerings with enhanced Autopilot options, Internet connectivity and free over-the-air software updates to provide additional safety, convenience and performance features. In addition, we have several future electric vehicles in our product pipeline, including an electric semi-truck, a new version of the Tesla Roadster and Model Y.

Energy Generation and Storage

We lease and sell solar energy systems and sell renewable energy and energy storage products to our customers. We have partnered with Panasonic to provide capital and operational support to manufacture PV cells, which will enable high volume integrated tile and PV cell production at our Gigafactory 2 in Buffalo, New York. We are also continuing to iterate on our Solar Roof product design through intensive reliability testing and are refining the installation process. Accordingly, we expect to ramp production of this product more quickly at Gigafactory 2 during the first half of 2019. Our energy storage products, which we manufacture at Gigafactory 1, consist of Powerwall, mostly for residential applications, and Powerpack, for commercial, industrial and utility-scale applications.

Management Opportunities, Challenges and Risks

Automotive Demand, Production and Deliveries

We drive demand for our vehicles by continually improving our vehicles through over-the-air software updates, expanding our retail, service and charging infrastructure, and by periodically developing and introducing new passenger and commercial electric vehicle variants and models. Our goal is to produce the world's highest quality vehicles as quickly and as cost-effectively as possible with a priority on workplace health and safety. The worldwide automotive markets for alternative fuel vehicles and self-driving technology are highly competitive and we expect them to become even more so. A growing number of companies, including established automakers, have announced plans to expand, and in some cases fully transition to, production of electric or environmentally friendly vehicles, and/or to develop self-driving technologies.

We believe that the unique features of our vehicles, the safety aspects of each of our vehicles, our constant innovation, our growing brand, the increased affordability introduced with Model 3, our global Supercharger network and our future vehicles will continue to generate incremental demand for our vehicles by making our vehicles accessible to larger and previously untapped consumer and commercial markets. For example, in the third quarter of 2018, we delivered more than 83,000 vehicles, including more than 56,000 Model 3 vehicles, which was a quarterly record for

us. We also believe there may be a larger addressable market for Model 3 than we had previously anticipated, as more than half of the vehicle makes and models that have been traded in to us by new Model 3 customers to date were below $35,000—the price of the base Model 3 that we ultimately intend to offer—which is also significantly lower than the lowest-priced $49,000 Model 3 available in the third quarter of 2018. Moreover, as we have offered only the long-range and performance variants of Model 3 thus far, we believe that we will continue to see more demand with the introduction of less expensive variants, such as a medium-range Model 3 option in the fourth quarter of 2018, and as we begin sales outside of North America and offer additional financing options. We also believe that we have an advantage over our competitors with respect to our battery and powertrain technology, as our vehicles' EPA-rated range per kWh is superior to that of other electric vehicles expected to be introduced in the near term, and our ability to significantly improve our cars through over-the-air software updates. We are producing an expanding number of variants of Model 3 in accordance with the demand that we expect for them, however, and we have finite production capabilities with long lead times associated with procuring certain parts. We are also not yet offering the least expensive variants of Model 3 that we ultimately expect to produce. If our Model 3 demand expectations prove inaccurate or we experience delays in introducing planned additional variants, including as we begin offering Model 3 in new markets, we may not be able to timely generate sales matched to the specific vehicles that we have the capacity to produce.

Our Model 3 production stabilized significantly in the third quarter of 2018, resulting in the production of approximately 4,300 Model 3 vehicles per week during the third quarter of 2018, excluding planned shutdowns, and 5,300 units in the last week of the quarter despite the majority of such vehicles being all-wheel drive versions, which are significantly more complex to build than the rear-wheel drive version. We are focusing on further cost improvements and increasing the affordability of Model 3.

We are continuing to work to increase Model 3 production to approximately 10,000 units per week in the most optimal manner from both a timing and capital expenditures perspective. At the Fremont Factory, we expect to continue to increase our Model 3 production rate to approximately 7,000 units per week with only limited additional capital expenditures, and we believe we can increase that rate to beyond 7,000 units per week with incremental capital expenditures. In China, which is the largest market for electric vehicles in the world, our Model S and Model X sales have been, and will likely continue to be, negatively impacted by recently-increased tariffs imposed by the Chinese government on U.S.-manufactured vehicles. We are seeking to alleviate the impact of such tariffs for Model 3 by developing plans to start producing approximately 3,000 Model 3 vehicles per week in Shanghai, China in the initial phase of our Gigafactory 3, which will have progressively increased levels of localization through local sourcing and manufacturing. However, the timeframe for that is subject to a number of uncertainties, including regulatory approval, supply chain constraints, and the pace of bringing the factory online. Ultimately, achieving increased Model 3 production cost-effectively will require that we timely address any additional bottlenecks that may arise as we continue to ramp, achieve reduced labor hours and increase supplier capacity.

We continue to expect Model S and Model X deliveries to be approximately 100,000 in total in 2018, constrained by the total available supply of cells with the 18650 form factor used in those vehicles. As our sales network continues to expand to new markets, we believe vehicle orders should continue to grow. We have made significant and sustained progress in the material costs and production processes of Model S and Model X, and we will continue to improve manufacturing efficiencies for these vehicles in 2018, although these vehicles are still and for the foreseeable future will likely be impacted by increased import duties on components sourced from China. Furthermore, while increased tariffs on vehicles exported to China have had some negative impact on Model S and Model X sales in China in the near term, we do not expect our global vehicle deliveries to be heavily impacted since we intend to partially divert deliveries to North America and Europe if necessary.

We are also making strides in our customer-facing infrastructure. Delivering vehicles to our customers and the related logistics were challenges in the third quarter of 2018, but we were able to achieve improvements throughout the quarter. We continue to streamline our delivery process to ensure that each delivery session is informative, convenient and quick, and that the overall flow of deliveries is both scalable at volume and more linear throughout each quarter rather than back-ended toward the end of each quarter. For example, we expanded direct deliveries of vehicles to customers' homes or workplaces. We believe that our ongoing efforts will provide a better customer experience, reduce the stress on our delivery system and be more cost-effective. As sales of Tesla vehicles ramp further, we plan to continue to open new Tesla retail locations, service centers, body shops and delivery hubs around the world, we plan to continue to expand our Mobile Service fleet, and we plan to continue to significantly increase the number of Superchargers and Destination Charging connectors globally. However, we will have to stabilize and sustain our delivery and logistics model to deliver an increasing number of vehicles, and we have only limited experience with this at scale, particularly in markets outside of North America. Moreover, if our growing fleet of customer vehicles, particularly Model 3, experiences unexpected reliability issues, it could overburden our servicing capabilities.

In July 2018, we delivered our 200,000th vehicle in the U.S. Under current regulations, the full $7,500 federal tax credit for the purchase of a qualified electric vehicle will continue to be available only for any of our new vehicles delivered by the end of 2018 in the U.S., and then will be reduced to $3,750 for each vehicle delivered by the end of the second quarter of 2019, then to $1,875 for each vehicle delivered by the end of 2019, then to $0 for each vehicle delivered thereafter. In the near term, we believe this phase-out will pull forward customer orders, before normalizing.

In the long run, we do not expect a meaningful impact to our sales in the U.S., as we believe that our vehicles offer a compelling proposition at their full price, and particularly as we work to reduce their price over time.

Finally, we continue to make progress with our self-driving technology. Our neural net and functionality continue to improve, and we frequently release minor software updates and from time to time release significant version updates, including a new vehicle software architecture that we began to release to eligible vehicles in October 2018. This new architecture will enable us to accelerate deployment of new self-driving features in the future. While we are subject to regulatory constraints over which we have no control, our ultimate goal is to achieve full autonomy. Additionally, there is growing competition from other automobile and technology companies in the area of self-driving.

Energy Generation and Storage Demand, Production and Deployment

We are continuing to reduce customer acquisition costs of our energy generation products, including by cutting advertising spend and shifting our sales strategy significantly to sell these products exclusively in Tesla stores with dedicated energy product sales personnel and on our website. As we implement this strategy, we expect that our solar deployments will remain relatively stable in the short term before growing, including through cross-selling opportunities to our expanding base of vehicle owners. Our emphasis for retrofit solar products remains on executing projects for upfront cash generation and profitability, rather than absolute volume growth, including by prioritizing residential installations that are combined with our energy storage products.

We are also continuing to iterate on our Solar Roof product design through intensive reliability testing and by refining the installation process. Accordingly, we expect to ramp production of this product more quickly at Gigafactory 2 during the first half of 2019.

We expect energy storage products to experience significant growth, and our goal remains to triple deployments in 2018. We are continuing to ramp production for these products at our Gigafactory 1 over the next several quarters, and we have seen further manufacturing efficiencies and improvements in our installation processes as we ramp. Demand for our energy storage products remains greater than our current production capacity for energy storage. Moreover, we recently introduced new software features for our Powerwall product to provide additional value for our customers.

Trends in Cash Flow, Capital Expenditures and Operating Expenses

Capital expenditures in the fourth quarter of 2018 are expected to support increases in Model 3 production capacity at Gigafactory 1 and the Tesla Factory, and for building additional stores, service centers and Superchargers, as well as the cost to acquire land use rights and our initial design and other expenditures for our planned Gigafactory 3 in Shanghai. We expect total 2018 capital expenditures to be slightly below $2.5 billion.

Generally, we expect operating expenses as a percentage of revenue to continue to decrease in the future due to significant increases in expected revenues and as we focus on increasing operational efficiency. We expect operating expenses to grow on an absolute basis, mainly driven by engineering, design and testing of new products or changes to existing products and higher sales costs associated with expanding our worldwide geographic presence. In addition, we expect operating expenses to increase as a result of increased selling, general and administrative expenses incurred by our energy generation and storage business.

In March 2018, our stockholders approved a new 10-year CEO performance award for Elon Musk with vesting contingent on achieving market capitalization and operational milestones. Consequently, we may incur significant additional non-cash stock-based compensation expense over the term of the award as each operational milestone becomes probable of vesting.

Automotive Financing Options

We offer loans and leases for our vehicles in certain markets in North America, Europe and Asia primarily through various financial institutions. We offered resale value guarantees or similar buy-back terms to all direct customers who purchase vehicles and who financed their vehicle through one of our specified commercial banking partners. Subsequent to June 30, 2016, this program is available only in certain international markets. Resale value guarantees available for exercise within the 12 months following September 30, 2018 totaled $162.3 million in value.

We have adopted the new revenue recognition standard ASC 606 effective January 1, 2018. This impacts the way we account for vehicle sales with a resale value guarantee and vehicles leased through our leasing partners, which now

generally qualify to be accounted for as sales with a right of return. In addition, for certain vehicles sales with a resale value guarantee and vehicles leased through leasing partners prior to 2018, we have ceased recognizing lease revenue starting in 2018 and record the associated cumulative adjustment to equity under the modified retrospective approach.

Vehicle deliveries with the resale value guarantee do not impact our near-term cash flows and liquidity, since we receive the full amount of cash for the vehicle sales price at delivery. While we do not assume any credit risk related to the customer, if a customer exercises the option to return the vehicle to us, we are exposed to liquidity risk that the resale value of vehicles under these programs may be lower than our guarantee, or the volume of vehicles returned to us may be higher than our estimates or we may be unable to resell the used vehicles in a timely manner, all of which could adversely impact our cash flows. To date, we have only had an insignificant number of customers who exercised their resale value guarantees and returned their vehicles to us. Based on current market demand for our vehicles, we estimate the resale prices for our vehicles will continue to be above our resale value guarantee amounts. Should market values of our vehicles or customer demand decrease, these estimates may be impacted materially.

We currently offer vehicle leases in the U.S. for Model S and Model X directly from Tesla Finance, our captive financing entity. Leasing through Tesla Finance is available in 39 states and the District of Columbia. We also offer financing arrangements through our entities in Canada, Germany and the United Kingdom. We also offer leasing through leasing partners in certain jurisdictions. Leasing through our captive financing entities and our leasing partners exposes us to residual value risk. In addition, for leases offered directly from our captive financing entities, we assume customer credit risk. We plan to continue expanding our financing offerings, including our lease financing options and the financial sources to support them, and to support the overall financing needs of our customers. To the extent that we are unable to arrange such options for our customers on terms that are attractive, our sales, financial results and cash flows could be negatively impacted.

Energy Generation and Storage Financing Options

We offer our customers the choice to either purchase and own solar energy systems or to purchase the energy that our solar energy systems produce through various contractual arrangements. These contractual arrangements include long-term leases and power purchase agreements. In both structures, we install our solar energy systems at our customer's premises and charge the customer a monthly fee. In the lease structure, this monthly payment is fixed with a minimum production guarantee. In the power purchase agreement structure, we charge customers a fee per kilowatt-hour, or kWh, based on the amount of electricity the solar energy system actually produces. The leases and power purchase agreements are typically for 20 years with a renewal option, and generally when there is no upfront prepayment, the specified monthly fees are subject to annual escalations.

For customers who want to purchase and own solar energy systems, we also offer solar loans, whereby a third-party lender provides financing directly to a qualified customer to enable the customer to purchase and own a solar energy system designed, installed and serviced by us. We enter into a standard solar energy system sale and installation agreement with the customer. Separately, the customer enters into a loan agreement with a third-party lender, who finances the full purchase price. We are not a party to the loan agreement between the customer and the third-party lender, and the third-party lender has no recourse against us with respect to the loan.

Gigafactory 1

We continue to develop Gigafactory 1 as a facility where we work together with our suppliers to integrate production of battery material, cells, modules, battery packs and drive units in one location for vehicles and energy storage products. We also continue to invest in the future expansion of Gigafactory 1 and in production equipment for battery cell, module and pack production.

Panasonic has partnered with us on Gigafactory 1 with investments in the production equipment that it uses to manufacture and supply us with battery cells. Under our arrangement with Panasonic, we plan to purchase the full output from their production equipment at negotiated prices. As these terms convey to us the right to use, as defined in ASC 840, Leases, their production equipment, we consider them to be leased assets when production commences. This results in us recording the value of their production equipment within property, plant and equipment, net, on the consolidated balance sheets with a corresponding liability recorded to long-term debt and capital leases. For all suppliers and partners for which we plan to purchase the full output from their production equipment located at Gigafactory 1, we will apply similar accounting. During the three and nine months ended September 30, 2018, we recorded additions of $181.8 million and $663.8 million, respectively, on the consolidated balance sheets.

While we currently believe that our progress at Gigafactory 1 will allow us to reach our production targets, our ultimate ability to do so will require us to resolve the types of challenges that are typical of a production ramp and the operation of a world-class manufacturing facility. For example, in the past we experienced bottlenecks in the assembly of battery modules at Gigafactory 1, which negatively affected our production of Model 3. Given the size and

complexity of this undertaking, it is possible that future events could result in the cost of building and operating Gigafactory 1 exceeding our current expectations and Gigafactory 1 taking longer to expand than we currently anticipate.

Gigafactory 2

We have an agreement with the SUNY Foundation for the construction of a factory capable of producing at least 1.0 gigawatts of solar cells annually in Buffalo, New York, referred to as Gigafactory 2. In December 2016, we entered into an agreement with Panasonic under which it manufactures custom PV cells and modules for us, primarily at Gigafactory 2, and we will purchase certain quantities of PV cells and modules from Panasonic during the 10-year term.

The terms of our agreement with the SUNY Foundation require us to comply with a number of covenants, and any failure to comply with these covenants could obligate us to pay significant amounts to the SUNY Foundation and result in termination of the agreement. Although we have commenced production at Gigafactory 2, our expectations as to the cost of building the facility, acquiring manufacturing equipment and supporting our manufacturing operations may prove incorrect, which could subject us to significant expenses to achieve the desired benefits.

Other Manufacturing

We continue to expand production capacity at our Tesla Factory and are exploring additional production capacity internationally. For example, in order to significantly increase the affordability of Model 3 for customers in China, where our vehicles are subject to recently-increased tariffs imposed by the Chinese government on vehicles imported from the U.S., we are trying to accelerate our manufacturing timeline there.

Critical Accounting Policies and Estimates

The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The preparation of the consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses and the related disclosures. We base our estimates on historical experience, as appropriate, and on various other assumptions that we believe to be reasonable under the circumstances. Changes in the accounting estimates are reasonably likely to occur from period to period. Accordingly, actual results could differ significantly from the estimates made by us. We evaluate our estimates and assumptions on an on-going basis. To the extent that there are material differences between our estimates and actual results, the future financial statement presentation, financial condition, results of operations and cash flows would be affected.

For a description of our critical accounting policies and estimates, refer to Note 2, Summary of Significant Accounting Policies, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

Results of Operations

Revenues

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
(Dollars in thousands)	2018	2017	$	%	2018	2017	$	%
Automotive sales	$5,878,305	$2,076,731	$3,801,574	183%	$11,558,051	$6,125,643	$5,432,408	89%
Automotive leasing	220,461	286,158	(65,697)	-23%	633,713	813,462	(179,749)	-22%
Total automotive revenues	6,098,766	2,362,889	3,735,877	158%	12,191,764	6,939,105	5,252,659	76%
Services and other	326,330	304,281	22,049	7%	859,884	713,168	146,716	21%
Total automotive & services and other segment revenue	6,425,096	2,667,170	3,757,926	141%	13,051,648	7,652,273	5,399,375	71%
Energy generation and storage segment revenue	399,317	317,505	81,812	26%	1,183,747	818,229	365,518	45%

Total revenues	$6,824,413	$2,984,675	$3,839,738	129%	$14,235,395	$8,470,502	$5,764,893	68 %

Automotive & Services and Other Segment

Automotive sales revenue includes revenues related to sale of new Model S, Model X and Model 3 vehicles, including internet connectivity, Supercharger access, and specified software updates for cars equipped with Autopilot hardware, as well as sales of regulatory credits to other automotive manufacturers. Our revenue from non-ZEV regulatory credits generally follows our production and delivery trends as we have long-term contracts with existing customers for the sale of these credits. However, as we do not have long-term contracts for ZEV credit sales, revenue from sale of ZEV credits fluctuate depending on when a contract is executed with a buyer. For example, our revenue from ZEV credit sales in the three months ended December 31, 2017 was $179.1 million while it was $0 in the three months ended June 30, 2018.

Automotive leasing revenue includes the amortization of revenue for Model S and Model X vehicles under direct lease agreements as well as those sold with resale value guarantees accounted for as operating leases under lease accounting. We do not yet offer leasing for Model 3 vehicles.

Services and other revenue consists of maintenance services, sales of used vehicles and sales of electric vehicle components and systems to other manufacturers, as well as sales by our recently acquired subsidiaries to third party customers.

Automotive sales revenue increased $3.80 billion, or 183%, in the three months ended September 30, 2018 as compared to the three months ended September 30, 2017, primarily due to the significant ramp in Model 3 vehicles delivered at average selling prices that were slightly higher in the three months ended September 30, 2018 compared to the prior year. Additionally, there were increases from the recognition of $479.0 million of additional sales due to the adoption of ASC 606, Revenue from Contracts with Customers, and all the related amendments ("new revenue standard") and an increase of $169.4 million in sales of regulatory credits to $189.5 million in the three months ended September 30, 2018 as compared to the prior period. ZEV credits sales were $52.3 million and non-ZEV regulatory credits sales were $137.2 million in the three months ended September 30, 2018, compared to $0.6 million ZEV credit sales and $19.5 million in non-ZEV regulatory credit sales in the three months ended September 30, 2017. The growth in non-ZEV regulatory credits in the three months ended September 30, 2018 was generally consistent with the volume growth in the quarter compared to the three months ended September 30, 2017.

Automotive sales revenue increased $5.43 billion, or 89%, in the nine months ended September 30, 2018 as compared to the nine months ended September 30, 2017, primarily due to higher volume of vehicles delivered in the nine months ended September 30, 2018, due to the significant ramp in Model 3 vehicles delivered at average selling prices that remained relatively consistent, and the recognition of $1.14 billion of additional sales due to the adoption of the new revenue standard. The increase in revenue is offset by a decrease of approximately 3,370 Model S and Model X deliveries excluding the impact of adoption of the new revenue standard, at average selling prices that remained relatively consistent as compared to the prior year. Additionally, there was an increase of $162.7 million in sales of regulatory credits to $323.8 million in the nine months ended September 30, 2018 as compared to the prior period. ZEV credits sales were $102.6 million and non-ZEV regulatory credits sales were $221.2 million in the nine months ended September 30, 2018, compared to $100.6 million ZEV credit sales and $60.5 million in non-ZEV regulatory credit sales in the nine months ended September 30, 2017. The growth in non-ZEV regulatory credits in the nine months ended September 30, 2018 was generally consistent with the volume growth in the quarter compared to the nine months ended September 30, 2017.

Automotive leasing revenue decreased $65.7 million, or 23%, in the three months ended September 30, 2018 as compared to the three months ended September 30, 2017. Automotive leasing revenue decreased $179.7 million, or 22%, in the nine months ended September 30, 2018 as compared to the nine months ended September 30, 2017. The decreases in the three and nine months ended September 30, 2018 compared to the same periods in the prior year were primarily due to a downward adjustment of $249.4 million and $603.5 million, respectively, from the adoption of the new revenue standard, partially offset by an increase of approximately 45% in cumulative vehicles under our direct vehicle leasing program and an increase in the number of vehicles under leasing programs where our counterparty has retained ownership of the vehicle during or at the end of the guarantee period when compared to the prior year. When our counterparty retains ownership, any remaining balances within deferred revenue and resale value guarantee are settled to automotive leasing revenue.

Services and other revenue increased $22.0 million, or 7%, during the three months ended September 30, 2018 compared to the three months ended September 30, 2017. The increase was primarily due to an increase in maintenance services revenue as our fleet continues to grow.

Services and other revenue increased $146.7 million, or 21%, during the nine months ended September 30, 2018 compared to the nine months ended September 30, 2017. The increase was primarily due to an increase in maintenance services revenue as our fleet continues to grow and in used vehicle sales. These increases were partially offset by a decrease in powertrain sales to another automobile manufacturer as we wound down the program in 2017.

Energy Generation and Storage Segment

Energy generation and storage revenue increased by $81.8 million, or 26%, in the three months ended September 30, 2018 compared to the three months ended September 30, 2017. The increase was primarily due to higher average priced cash and loan solar energy systems deployed at deployment levels that remained relatively consistent and increases in Powerpack and Powerwall deliveries in the three months ended September 30, 2018 compared to the same period in the prior year.

Energy generation and storage revenue increased by $365.5 million, or 45%, in the nine months ended September 30, 2018 as compared to the nine months ended September 30, 2017. The increase was primarily due to increases in Powerpack and Powerwall deliveries and higher priced cash and loan solar energy systems deployed at deployment levels that remained relatively consistent compared to the nine months ended September 30, 2017. The increase in Powerpack revenue was significant in the nine months ended September 30, 2018 compared to the same period in the prior year due to $72.5 million recognized in the first quarter of 2018 related to the South Australia battery project.

Cost of Revenues and Gross Margin

(Dollars in thousands)	Three Months Ended September 30, 2018	2017	Change $	%	Nine Months Ended September 30, 2018	2017	Change $	%
Cost of revenues								
Automotive sales	$4,405,919	$1,755,622	$2,650,297	151%	$9,027,055	$4,724,849	$4,302,206	91%
Automotive leasing	119,283	175,224	(55,941)	-32%	360,694	516,683	(155,989)	-30%
Total automotive cost of revenues	4,525,202	1,930,846	2,594,356	134%	9,387,749	5,241,532	4,146,217	79%
Services and other	444,992	367,401	77,591	21%	1,212,335	852,446	359,889	42%
Total automotive & services and other segment cost of revenues	4,970,194	2,298,247	2,671,947	116%	10,600,084	6,093,978	4,506,106	74%
Energy generation and storage segment	330,554	237,288	93,266	39%	1,036,190	592,823	443,367	75%
Total cost of revenues	$5,300,748	$2,535,535	$2,765,213	109%	$11,636,274	$6,686,801	$4,949,473	74%
Gross profit total automotive	$1,573,564	$432,043			$2,804,015	$1,697,573		
Gross margin total automotive	26%	18%			23%	24%		

Gross profit total automotive & services and other segment	$ 1,454,902		$ 368,923		$ 2,451,564		$ 1,558,295	
Gross margin total automotive & services and other segment	23	%	14	%	19	%	20	%
Gross profit energy generation and storage segment	$ 68,763		$ 80,217		$ 147,557		$ 225,406	
Gross margin energy generation and storage segment	17	%	25	%	12	%	28	%
Total gross profit	$ 1,523,665		$ 449,140		$ 2,599,121		$ 1,783,701	
Total gross margin	22	%	15	%	18	%	21	%

Automotive & Services and Other Segment

Cost of automotive sales revenue includes direct parts, material and labor costs, manufacturing overhead, including depreciation costs of tooling and machinery, shipping and logistic costs, vehicle connectivity costs, allocations of electricity and infrastructure costs related to our Supercharger network, and reserves for estimated warranty expenses. Cost of automotive sales revenues also includes adjustments to warranty expense and charges to write down the carrying value of our inventory when it exceeds its estimated net realizable value and to provide for obsolete and on-hand inventory in excess of forecasted demand.

Cost of automotive leasing revenue includes primarily the amortization of operating lease vehicles over the lease term, as well as warranty expenses recognized as incurred. Cost of automotive leasing revenue also includes vehicle connectivity costs and allocations of electricity and infrastructure costs related to our Supercharger network for vehicles under our leasing programs.

Costs of services and other revenue includes costs associated with providing maintenance services and costs to acquire and certify used vehicles. Cost of services and other revenue also includes direct parts, material and labor costs, manufacturing overhead associated with the sales of electric vehicle components and systems to other manufacturers and sales by our recently acquired subsidiaries to third party customers.

Cost of automotive sales revenues increased $2.65 billion, or 151%, in the three months ended September 30, 2018 compared to the three months ended September 30, 2017. This increase was primarily due to higher volume of Model 3 vehicles delivered partially offset by significant reductions in Model 3 average costs per unit compared to the prior year as there was temporary under-utilization of manufacturing capacity at lower production volumes as production ramped in 2017. Additionally, the increase was due to the recognition of $329.9 million of additional cost of sales due to the adoption of the new revenue standard, offset by lower overall costs for Model S and X cash deliveries from reductions in combined Model S and X average costs per unit as a result of increased manufacturing efficiencies. As the per unit production cost of Model 3 is less than that of Model S or Model X, each incremental delivery of Model 3 has a smaller impact on the aggregate increase in cost of automotive sales revenues than each incremental delivery of Model S or Model X.

Cost of automotive sales revenues increased $4.30 billion, or 91%, in the nine months ended September 30, 2018 as compared to the nine months ended September 30, 2017. This increase was primarily due to higher volume of Model 3 vehicles delivered partially offset by significant reductions in Model 3 average costs per unit compared to the prior year as there was temporary under-utilization of manufacturing capacity at lower production volumes as production ramped in 2017. Additionally, the increase was due to the recognition of $795.7 million of additional cost of sales due to the adoption of the new revenue standard, offset by lower overall costs for Model S and X cash deliveries from approximately 3,370 less units delivered as compared to the same period last year and reductions in combined Model S and X average costs per unit as a result of increased manufacturing efficiencies. As the per unit production cost of Model 3 is less than that of Model S or Model X, each incremental delivery of Model 3 has a smaller impact on the aggregate increase in cost of automotive sales revenues than each incremental delivery of Model S or Model X.

Cost of automotive leasing revenue decreased $55.9 million, or 32%, during the three months ended September 30, 2018 compared to the three months ended September 30, 2017. Cost of automotive leasing revenue decreased $156.0 million, or 30%, during the nine months ended September 30, 2018 compared to the nine months ended September 30, 2017. The decreases in the three and nine months ended September 30, 2018 compared to the same periods in the prior year were primarily due to a downward adjustment of $188.7 million and $451.0 million, respectively, from the adoption of the new revenue standard, partially offset by increased cost of automotive leasing revenue from an increase of approximately 45% in cumulative vehicles under our direct vehicle leasing program and an increase in the number of vehicles under leasing programs where our counterparty has retained ownership of the vehicle during or at the end of the guarantee period when compared to the prior year. When our counterparty retains ownership, the net book value of the leased vehicle of the lease vehicle is expensed to cost of automotive leasing revenue.

Cost of services and other revenue increased $77.6 million, or 21%, in the three months ended September 30, 2018 compared to the three months ended September 30, 2017. The increase was primarily due to the increase in cost of our new service centers, additional service personnel in existing and new service centers, mobile service capabilities, parts distribution centers and investment in new body shops to provide maintenance services to our rapidly growing fleet of vehicles. The increase was offset by a decrease in the cost of used vehicle sales primarily due to lower value of trade-in vehicles offset by increased volume of trade-in vehicles.

Cost of services and other revenue increased $359.9 million, or 42%, in the nine months ended September 30, 2018 as compared to the nine months ended September 30, 2017. The increase was primarily due to the increase in cost of our new service centers, additional service personnel in existing and new service centers, mobile service capabilities, parts distribution centers and investment in new body shops to provide maintenance services to our rapidly growing fleet of vehicles. Additionally, there was an overall increase in cost of used vehicle sales from increased volume of trade-in vehicles offset by lower values per trade-in. These increases were partially offset by a decrease in powertrain sales to another automobile manufacturer as we wound down the program in 2017.

Gross margin for total automotive increased from 18% in the three months ended September 30, 2017 to 26% in the three months ended September 30, 2018. The increase is primarily due to improved Model 3, Model S, and Model X gross margins as costs per unit decreased year over year as discussed above and an increase in regulatory credits, which have no associated costs. Additionally, the increase was supplemented by higher automotive leasing gross margins compared to the prior year.

Gross margin for total automotive decreased from 24% in the nine months ended September 30, 2017 to 23% in the nine months ended September 30, 2018. The decrease is mainly due to the higher weighting of Model 3 in the current year, which has had a lower year to date margin than Model S and X due to temporary under-utilization of manufacturing capacity at lower production volumes in the first half of the year. The impact of the margin dilution from Model 3 was partially offset by improved Model S and Model X combined margins as costs per unit decreased year over year from continuing manufacturing efficiencies and higher automotive leasing gross margins compared to the prior year and an increase in regulatory credits, which have no associated costs.

Gross margin for total automotive & services and other segment increased from 14% in the three months ended September 30, 2017 to 23% in the three months ended September 30, 2018. The increase is primarily due to improved total automotive gross margins, as discussed above, offset by lower services and other margins from higher costs of maintenance service.

Gross margin for total automotive & services and other segment decreased from 20% in the nine months ended September 30, 2017 to 19% in the nine months ended September 30, 2018. The decrease is primarily due to lower total automotive gross margins, as discussed above, and lower services and other margins from higher costs of maintenance service.

Energy Generation and Storage Segment

Cost of energy generation and storage revenue increased by $93.3 million, or 39%, in the three months ended September 30, 2018 compared to the three months ended September 30, 2017. Costs for cash and loan solar energy system increased primarily due to higher costs associated with higher average priced systems deployed in the three months ended September 30, 2018 compared to the same period in the prior year, higher solar energy system material costs, and higher allocation of overhead costs from lower deployment of solar sales and leases overall. Additionally, there were higher costs for our solar energy system lease arrangements due to impairment charges in the three months ended September 30, 2018 and higher costs for energy storage due to increases in Powerpack and Powerwall deliveries.

Cost of energy generation and storage revenue increased by $443.4 million, or 75%, in the nine months ended September 30, 2018 compared to the nine months ended September 30, 2017. Costs increased for energy storage due to increases in Powerpack and Powerwall deliveries. The increase in Powerpack cost of revenue was significant in the nine months ended September 30, 2018 compared to the same period in the prior year due to the $72.5 million cost of the South Australia battery project recorded in the first quarter of 2018. Additionally, costs for cash and loan solar energy system increased primarily due to higher costs associated with higher average priced systems deployed in the nine months ended September 30, 2018 compared to the same period in the prior year, higher solar energy system material costs, higher allocation of overhead costs from lower deployment of solar sales and leases overall, and certain warranty related one-time charges.

Gross margin for energy generation and storage decreased from 25% in the three months ended September 30, 2017 to 17% in the three months ended September 30, 2018. The decrease is primarily due to the increased costs for solar energy system lease arrangements due to impairment charges in the three months ended September 30, 2018. Additionally, margins improved on our energy storage business as costs for projects delivered in the prior year were higher due to manufacturing under-utilization and one-time costs.

Gross margin for energy generation and storage decreased from 28% in the nine months ended September 30, 2017 to 12% in the nine months ended September 30, 2018. The decrease is primarily due to the increases in solar cash and loan solar energy system material costs, higher allocation of overhead costs from lower deployment of solar sales and leases overall, and impairment charges on solar energy system lease arrangements. The decrease is offset by an increase in energy storage margins primarily due to increased manufacturing efficiencies in the current year.

Research and Development Expense

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
(Dollars in thousands)	2018	2017	$	%	2018	2017	$	%
Research and development	$ 350,848	$ 331,622	$ 19,226	6%	$ 1,104,073	$ 1,023,436	$ 80,637	8%
As a percentage of revenues	5 %	11 %			8 %	12 %		

Research and development (“R&D”) expenses consist primarily of personnel costs for our teams in engineering and research, manufacturing engineering and manufacturing test organizations, prototyping expense, contract and professional services and amortized equipment expense.

R&D expenses increased $19.2 million, or 6%, in the three months ended September 30, 2018 compared to the three months ended September 30, 2017. This increase was primarily due to a $30.6 million increase in employee and labor related expenses from headcount growth to support our business expansion, $14.7 million increase in stock-based compensation expense related to an increase in headcount and number of employee stock awards granted for new hire and refresher employee stock grants, and $6.3 million in facilities, freight, and depreciation expenses due to business expansion. These increases were offset by decreases of $20.3 million in expensed materials and $16.0 million of professional and outside service expenses as there were higher costs in the three months ended September 30, 2017 primarily related to Model 3 development.

R&D expenses increased $80.6 million, or 8%, in the nine months ended September 30, 2018 compared to the nine months ended September 30, 2017. This increase was primarily due to a $96.3 million increase in employee and labor related expenses from headcount growth to support our business expansion and $36.4 million increase in stock-based compensation expense related to an increase in headcount and number of employee stock awards granted for new hire and refresher employee stock grants. Additionally, there was an increase of $30.9 million in facilities, freight, and depreciation expenses due to business expansion, offset by a $70.5 million decrease in expensed materials as there were higher costs in the nine months ended September 30, 2017 primarily related to Model 3 development.

Selling, General and Administrative Expense

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
(Dollars in thousands)	2018	2017	$	%	2018	2017	$	%
Selling, general and administrative	$ 729,876	$ 652,998	$76,878	12%	$ 2,167,039	$ 1,794,210	$372,829	21%
As a percentage of revenues	11%	22%			15%	21%		

Selling, general and administrative (“SG&A”) expenses generally consist of personnel and facilities costs related to our stores, marketing, sales, executive, finance, human resources, information technology and legal organizations, as well as fees for professional and contract services and litigation settlements.

SG&A expenses increased $76.9 million, or 12%, in the three months ended September 30, 2018 as compared to the three months ended September 30, 2017. The increase was primarily due to a $62.6 million increase in stock-based compensation expense related to the 2018 CEO Performance Award and stock awards granted for new hires and refresher employee stock grants and $24.4 million increase in office, information technology and facilities-related expenses and sales and marketing activities to support our business expansion. The increase was offset by a decrease of $19.5 million in employee and labor related expenses primarily due to the restructuring actions carried out in the second quarter of 2018 (refer to Restructuring and other below).

SG&A expenses increased $372.8 million, or 21%, in the nine months ended September 30, 2018 as compared to the nine months ended September 30, 2017. The increase was primarily due to a $158.2 million increase in office, information technology and facilities-related expenses and sales and marketing activities to support our business expansion. Additionally, there was a $141.3 million increase in stock-based compensation expense related to the 2018 CEO Performance Award and stock awards granted for new hires and refresher employee stock grants. To support the continued growth of our business, there was an increase of $61.0 million in employee related expenses and professional service fees.

Restructuring and other

	Three Months Ended September 30,	Change	Nine Months Ended September 30,	Change

(Dollars in thousands)	2018	2017	$	%	2018	2017	$	%
Restructuring and other	$ 26,184	$ —	$26,184	N/A	$ 129,618	$ —	$129,618	N/A
As a percentage of revenues	0 %	0 %			1 %	0 %		

During the second quarter of 2018, we carried out certain restructuring actions in order to reduce costs and improve efficiency. As a result, in the three months ended June 30, 2018, we recognized $34.0 million of one-time employee termination expenses and estimated losses from sub-leasing a facility. The employee termination expenses of $26.2 million were substantially paid by the end of the third quarter of 2018, while the remaining amounts were non-cash. Also included within restructuring and other activities was $56.1 million of expenses (materially all of which were non-cash) from restructuring the energy generation and storage segment, which comprised of disposals of certain tangible assets, the shortening of the useful life of a trade name intangible asset and a contract termination penalty. In addition, we concluded that a small portion of the IPR&D is not commercially feasible. Consequently, we recognized an impairment loss of $13.3 million in the three months ended June 30, 2018. The restructuring actions during the second quarter of 2018 will result in a remaining estimated cost savings of approximately $50.0 million for the fourth quarter of 2018.

In October 2018, a final court order was entered approving the terms of a settlement in connection with the SEC’s legal actions relating to Mr. Musk’s prior consideration during the third quarter of 2018 of a take-private proposal for Tesla. These expenses are expected to be substantially paid by the end of the fourth quarter of 2018.

There were no restructuring actions during the three or nine months ended September 30, 2017.

Interest Expense

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
(Dollars in thousands)	2018	2017	$	%	2018	2017	$	%
Interest expense	$ (175,220)	$ (117,109)	$ (58,111)	50%	$ (488,348)	$ (324,896)	$ (163,452)	50%
As a percentage of revenues	3%	4%			3%	4%		

Interest expense increased by $58.1 million, or 50%, in the three months ended September 30, 2018 as compared to the three months ended September 30, 2017. Interest expense increased by $163.5 million, or 50%, in the nine months ended September 30, 2018 as compared to the nine months ended September 30, 2017. The increases in the three and nine months ended September 30, 2018 compared to the same periods in the prior year were primarily due to a decrease in the amount of interest we capitalized from the consolidated statement of operations to property, plant, and equipment on the consolidated balance sheets. The amount of interest we capitalize is driven by our construction in progress balance, which has decreased compared to the prior year due to significant Model 3 capital expenditure ramp in 2017. Additionally, the increase was due to an increase in our average outstanding indebtedness and the weighted average interest rates as compared to the prior year.

Other Income (Expense), Net

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
(Dollars in thousands)	2018	2017	$	%	2018	2017	$	%
Other income (expense), net	$ 22,876	$ (24,390)	$ 47,266	Not meaningful	$ 36,071	$ (83,696)	$ 119,767	Not meaningful
As a percentage of revenues	0%	-1%			0%	-1%		

Other income (expense), net, consists primarily of foreign exchange gains and losses related to our foreign currency-denominated assets and liabilities and changes in the fair values of our fixed-for-floating interest rate swaps. We expect our foreign exchange gains and losses will vary depending upon movements in the underlying exchange rates.

Other income (expense), net, increased by $47.3 million from a loss of $24.4 million in the three months ended September 30, 2017 to a gain of $22.9 million in the three months ended September 30, 2018. Other income (expense), net, increased by $119.8 million from a loss of $83.7 million in the nine months ended September 30, 2017 to a gain of $36.1 million in the nine months ended September 30, 2018. The increases were primarily due to

favorable fluctuations in foreign currency exchange rates and gains from interest rate swaps related to our debt facilities. Additionally, we recognized an $18.2 million loss in the three months ended September 30, 2017 for measurement period adjustments to the acquisition date fair values of certain liabilities as previously reported in our Form 10-K for the year ended December 31, 2016, with no corresponding cost in the current period.

Provision for Income Taxes

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
(Dollars in thousands)	2018	2017	$	%	2018	2017	$	%
Provision (benefit) for income taxes	$ 16,647	$ (285)	$16,932	Not meaningful	$ 35,959	$ 40,640	$(4,681)	-12%
Effective tax rate	6%	0%			-3%	-3%		

Our provision for income taxes increased by $16.9 million from a benefit of $0.3 million in the three months ended September 30, 2017 to a provision of $16.6 million in the three months ended September 30, 2018. This increase was due to increases in taxable profits in certain foreign jurisdictions.

Our provision for income taxes decreased by $4.7 million, or 12%, in the nine months ended September 30, 2018 as compared to the nine months ended September 30, 2017. The decrease was primarily due to the reduction in taxable profits in certain foreign jurisdictions as compared to the same period in the period year.

Net Income (Loss) Attributable to Noncontrolling Interests and Redeemable Noncontrolling Interests

Our net income (loss) attributable to noncontrolling interests and redeemable noncontrolling interests was related to financing fund arrangements.

Liquidity and Capital Resources

As of September 30, 2018, we had $2.97 billion of cash and cash equivalents. Balances held in foreign currencies had a U.S. dollar equivalent of $663.0 million and consisted primarily of Chinese yuan, euros and Canadian dollars. Our sources of cash are predominately from our deliveries of vehicles, sales and installations of our energy storage products and solar energy systems, proceeds from debt facilities, proceeds from financing funds and proceeds from equity offerings.

Our sources of liquidity and cash flows enable us to fund ongoing operations, research and development projects for new products, investments in tooling and manufacturing equipment for the production ramp of Model 3, the continued construction of Gigafactory 1 and the continued expansion of our retail stores, service centers, mobile repair services and Supercharger network. We currently expect total 2018 capital expenditures to be slightly below $2.5 billion, including the acquisition of land use rights in Shanghai, China to build Gigafactory 3 and for its initial design and construction expenses.

In 2019, we expect to continue to increase the Model 3 production rate in our Fremont factory while needing only limited additional capital expenditures. As we continue to expand our existing manufacturing capacity, introduce new products, expand our retail stores, service centers, mobile repair services and Supercharging network, we will continue to utilize our increasing experience and learnings from past and current product ramps to do so at a level of capital efficiency per dollar of spend that we expect to be significantly greater than historical levels. Considering the pipeline of new products planned at this point, and consistent with our current strategy of using a partner to manufacture cells, as well as considering all other infrastructure growth and expansion of Gigafactories 1, 2 and 3, we currently estimate that capital expenditures will be between $2.5 to $3.0 billion annually for the next two fiscal years. Moreover, we expect that the cash we generate from our core operations will generally be sufficient to cover our future capital expenditures and to pay down our near-term debt obligations, although we may choose to seek alternative financing sources. For example, we expect that much of our investment in Gigafactory 3 will be funded through indebtedness arranged through local financial institutions in China. As always, we continually evaluate our capital expenditure needs and may decide it is best to raise additional capital to fund the rapid growth of our business.

We have an agreement to spend or incur $5.0 billion in combined capital, operational expenses, costs of goods sold and other costs in the State of New York during the 10-year period following full production at Gigafactory 2. We anticipate meeting these obligations through our operations at Gigafactory 2 and other operations within the State of New York, and we do not believe that we face a significant risk of default.

We expect that our current sources of liquidity together with our projection of cash flows from operating activities will provide us with adequate liquidity over at least the next 12 months. A large portion of our future expenditures is

to fund our growth, and we can adjust our capital and operating expenditures by operating segment, including future expansion of our product offerings, stores, service centers, delivery centers and Supercharger network. We may need or want to raise additional funds in the future, and these funds may not be available to us when we need or want them, or at all. If we cannot raise additional funds when we need or want them, our operations and prospects could be negatively affected.

In addition, we had $1.13 billion of unused committed amounts under our credit facilities and financing funds, some of which are subject to satisfying specified conditions prior to draw-down (such as pledging to our lenders sufficient amounts of qualified receivables, inventories, leased vehicles and our interests in those leases, solar energy systems and the associated customer contracts, our interests in financing funds or various other assets; and contributing or selling qualified solar energy systems and the associated customer contracts or qualified leased vehicles and our interests in those leases into the financing funds). Upon the draw-down of any unused committed amounts, there are no restrictions on the use of such funds for general corporate purposes. For details regarding our indebtedness and financing funds, refer to Note 10, Convertible and Long-Term Debt Obligations, and Note 13, VIE Arrangements, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

Summary of Cash Flows

	Nine Months Ended September 30,	
(Dollars in thousands)	2018	2017
Net cash provided by (used in) operating activities	$863,241	$(570,545)
Net cash used in investing activities	$(1,972,419)	$(3,284,358)
Net cash provided by financing activities	$686,064	$4,129,022

Cash Flows from Operating Activities

Our cash flows from operating activities are significantly affected by our cash investments to support the growth of our business in areas such as research and development and selling, general and administrative. Our operating cash inflows include cash from vehicle sales, lease payments directly from customers, customer deposits, sales of regulatory credits and energy generation and storage products. These cash inflows are offset by our payments to suppliers for production materials and parts used in our manufacturing process, employee compensation, operating lease payments and interest payments on our financings.

Net cash used in operating activities of $570.5 million during the nine months ended September 30, 2017 changed favorably by $1.43 billion to net cash provided by operating activities of $863.2 million during the nine months ended September 30, 2018. This favorable change was primarily due to the decrease in net operating assets and liabilities of $852.5 million and the increase in net income, excluding non-cash expenses and gains, of $581.2 million. The decrease in net operating assets and liabilities was mainly driven by an increase in accounts payable and accrued liabilities, as a result of increased expenditures to support our ramp of Model 3 deliveries and a decrease in operating lease vehicles primarily due to the adoption of the new revenue standard, wherein certain vehicle sales where revenue was previously deferred either as an in-substance operating lease, such as certain vehicle sales to customers or leasing partners with a resale value guarantee, we now recognize revenue when the vehicles are shipped as sale with a right of return. These decreases were partially offset by the increase in accounts receivable and inventory, as a result of increased Model 3 and energy products deliveries and production.

Cash Flows from Investing Activities

Net cash used in investing activities during the nine months ended September 30, 2018 decreased by $1.31 billion as compared to the nine months ended September 30, 2017 due to the $852.4 million decrease in purchases of property and equipment due to higher spend in 2017 for building Model 3 capacity in Fremont, Gigafactory 1, and the expansion of our customer support infrastructure. Additionally, there was a $357.2 million decrease in purchases of solar energy systems, leased and to be leased and a decrease of $102.3 million in cash spent on acquisitions of businesses.

In 2014, we began construction of Gigafactory 1. We used $592.5 million and $1.22 billion of cash towards Gigafactory 1 construction during the nine months ended September 30, 2018 and 2017, respectively.

Cash Flows from Financing Activities

Cash flows from financing activities during the nine months ended September 30, 2018 consisted primarily of $546.1 million from the issuance of automobile lease-backed notes, $484.0 million of net borrowings under the Credit

Agreement, and $184.9 million net proceeds from investments by fund investors. Additionally, there were collateralized lease repayments of $343.1 million and repayments of automobile lease-backed notes of $128.6 million.

Cash flows from financing activities during the nine months ended September 30, 2017 consisted primarily of $966.4 million from issuance of convertible senior notes, $1.80 billion from the issuance of senior notes and $400.2 million from public offering of our common stock, net of underwriter fees. Additionally, we paid $151.2 million for bond hedges, net of the amount we received from the sale of warrants. Furthermore, we received proceeds from vehicle sales to our bank leasing partners of $416.4 million and net proceeds from investments by fund investors of $501.2 million.

Contractual Obligations

Contractual obligations did not materially change during the nine months ended September 30, 2018 except for debt activity, as discussed in more detail in Note 10, Convertible and Long-Term Debt Obligations, and additional capital leases of manufacturing equipment.

Off-Balance Sheet Arrangements

During the periods presented, we did not have relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which were established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Recent Accounting Pronouncements

See Note 2, Summary of Significant Accounting Policies, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Currency Risk

We have foreign currency risks related to our revenue, cost of revenues and operating expenses denominated in currencies other than the U.S. dollar, primarily the euro, Japanese yen, Canadian dollar, Chinese yuan and Norwegian krone. In general, we are a net receiver of currencies other than the U.S. dollar. Accordingly, changes in exchange rates, and in particular a strengthening of the U.S. dollar, have in the past, and may in the future, negatively affect our revenue and other operating results as expressed in U.S. dollars.

We transact business globally in multiple currencies. Our foreign operations expose us to the risk of fluctuations in foreign currency exchange rates against the functional currencies of our foreign subsidiaries and against the U.S. dollar. Upon consolidation, as foreign currency exchange rates vary, revenues and expenses may be significantly impacted, and we may record significant gains or losses on the re-measurement of our monetary assets and liabilities, including intercompany balances. For the three months ended September 30, 2018, our largest foreign currency re-measurement exposures were from Japanese yen, euro and Canadian dollar. In the nine months ended September 30, 2018, we recognized a net foreign currency exchange gain of $6.6 million in other income (expense), net.

We considered the historical trends in foreign currency exchange rates and determined that it is reasonably possible that adverse changes in foreign exchange rates of 10% for all currencies could be experienced in the near-term. These reasonably possible adverse changes were applied to our total monetary assets and liabilities denominated in currencies other than our functional currencies as of September 30, 2018 to compute the adverse impact these changes would have had on our income (loss) before income taxes. These changes would have resulted in an adverse impact of $153.9 million.

Interest Rate Risk

We are exposed to interest rate risk on our borrowings that bear interest at floating rates. Pursuant to our risk management policies, in certain cases, we utilize derivative instruments to manage some of this risk. We do not enter into derivative instruments for trading or speculative purposes. A hypothetical 10% change in our interest rates would have increased our interest expense for the nine months ended September 30, 2018 by $5.9 million.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”). In designing and evaluating the disclosure controls and procedures, our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that our management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that, as of September 30, 2018, our disclosure controls and procedures were designed at a reasonable assurance level and were effective to provide reasonable assurance that the information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

The Company will also further enhance disclosure controls in accordance with our September 29, 2018 settlement with the SEC regarding Elon Musk’s social media posts on August 7, 2018.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting, as identified in connection with the evaluation required by Rule 13a-15(d) and Rule 15d-15(d) of the Exchange Act, that occurred during the three months ended September 30, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Securities Litigation Relating to SolarCity's Financial Statements and Guidance

On March 28, 2014, a purported stockholder class action was filed in the U.S. District Court for the Northern District of California against SolarCity and two of its officers. The complaint alleges violations of federal securities laws and seeks unspecified compensatory damages and other relief on behalf of a purported class of purchasers of SolarCity's securities from March 6, 2013 to March 18, 2014. After a series of amendments to the original complaint, the District Court dismissed the amended complaint and entered a judgment in our favor on August 9, 2016. The plaintiffs filed a notice of appeal, and on December 4, 2017, the Court heard oral argument on the appeal. On March 8, 2018, the Court upheld the District Court ruling of dismissal and judgment in our favor. The case is concluded.

Securities Litigation Relating to the SolarCity Acquisition

Between September 1, 2016 and October 5, 2016, seven lawsuits were filed in the Court of Chancery of the State of Delaware by purported stockholders of Tesla challenging our acquisition of SolarCity. Following consolidation, the lawsuit names as defendants the members of Tesla's board of directors and alleges, among other things, that board members breached their fiduciary duties in connection with the acquisition. The complaint asserts both derivative claims and direct claims on behalf of a purported class and seeks, among other relief, unspecified monetary damages, attorneys' fees, and costs. On January 27, 2017, defendants filed a motion to dismiss the operative complaint. Rather than respond to the defendants' motion, the plaintiffs filed an amended complaint. On March 17, 2017, defendants filed a motion to dismiss the amended complaint. On December 13, 2017, the Court heard oral argument on the motion. On March 28, 2018, the Court denied defendants' motion to dismiss. Defendants filed a request for interlocutory appeal, but the Delaware Supreme Court denied that request, electing not to hear an appeal at this early stage of the case. Defendants filed their answer on May 18, 2018. This case will now proceed.

These plaintiffs and others filed parallel actions in the U.S. District Court for the District of Delaware on April 21, 2017. Those actions have been consolidated and are stayed pending the Chancery Court litigation. They include claims for violations of the federal securities laws and breach of fiduciary duties by Tesla's board of directors. That action is stayed pending the Chancery Court litigation.

We believe that claims challenging the SolarCity acquisition are without merit and intend to defend against them vigorously. We are unable to estimate the possible loss or range of loss, if any, associated with these claims.

Securities Litigation Relating to Production of Model 3 Vehicles

On October 10, 2017, a purported stockholder class action was filed in the U.S. District Court for the Northern District of California against Tesla, two of its current officers, and a former officer. The complaint alleges violations of federal securities laws, and seeks unspecified compensatory damages and other relief on behalf of a purported class of purchasers of Tesla securities from May 4, 2016 to October 6, 2017. The lawsuit claims that Tesla supposedly made materially false and misleading statements regarding the Company's preparedness to produce Model 3 vehicles. Plaintiffs filed an amended complaint on March 23, 2018, and defendants filed a motion to dismiss on May 25, 2018. The court granted defendant's motion to dismiss with leave to amend. Plaintiffs filed their amended complaint on September 28, 2018. We intend to file a motion to dismiss that complaint as well. We believe that the claims are without merit and intend to defend against this lawsuit vigorously. We are unable to estimate the possible loss or range of loss, if any, associated with this lawsuit.

Litigation Relating to 2018 CEO Performance Award

On June 4, 2018, a purported Tesla stockholder filed a putative class and derivative action in the Delaware Court of Chancery alleging that Tesla's directors breached their fiduciary duties by approving the stock-based compensation plan. The complaint seeks, among other things, monetary damages and rescission or reformation of the stock-based compensation plan. On August 31, 2018, defendants filed a motion to dismiss the complaint. We believe the claims asserted in this lawsuit are without merit and intend to defend against them vigorously.

Securities Litigation related to Potential Going Private Transaction

Between August 10, 2018 and September 6, 2018, nine purported stockholder class actions were filed against Tesla and Elon Musk in connection with Elon Musk's August 7, 2018 Twitter post that he was considering taking Tesla private. All of the suits are now pending in the United States District Court for the Northern District of California. Although the complaints vary in certain respects, they each purport to assert claims for violations of federal securities laws related to Mr. Musk's statement and seek unspecified compensatory damages and other relief on behalf of a purported class of purchasers of Tesla's securities. We anticipate that, following the lead plaintiff process, the lead plaintiff will file a consolidated amended complaint. We believe that the claims have no merit and intend to defend against them vigorously. We are unable to estimate the potential loss, or range of loss, associated with these claims.

On October 17 and 25, 2018, derivative lawsuits were filed in Delaware Court of Chancery against Mr. Musk and the members of Tesla's Board in relation to statements made and actions connected to a potential going private transaction. Also on October 25, 2018, a third derivative lawsuit was filed in federal court in Delaware against Mr. Musk and the members of the Board. We believe that the claims have no merit and intend to defend against them vigorously. The Company is unable to estimate the potential loss, or range of loss, associated with these claims.

Settlement with SEC related to Potential Going Private Transaction

On October 16, 2018, the U.S. District Court for the Southern District of New York entered a final judgment approving the terms of a settlement filed with the Court on September 29, 2018, in connection with the actions taken by the U.S. Securities and Exchange Commission (the "SEC") relating to Elon Musk's prior statement that he was considering taking Tesla private. Without admitting or denying any of the SEC's allegations, and with no restriction on Mr. Musk's ability to serve as an officer or director on the Board (other than as its Chair), we and Mr. Musk agreed, among other things, to pay civil penalties of $20 million each and that we will appoint an independent director as Chair of the Board for at least three years, appoint two additional independent directors to the Board, and further enhance our disclosure controls and other corporate governance-related matters.

Certain Investigations and Other Matters

We receive requests for information from regulators and governmental authorities, such as the National Highway Traffic Safety Administration, the National Transportation Safety Board, the SEC, the Department of Justice ("DOJ") and various state agencies. We routinely cooperate with such regulatory and governmental requests.

In particular, the SEC has issued subpoenas to Tesla in connection with (a) Mr. Musk's prior statement that he was considering taking Tesla private and (b) certain projections that we made for Model 3 production rates during 2017 and other public statements relating to Model 3 production. The DOJ has also asked us to voluntarily provide it with information about each of these matters and is investigating. Aside from the settlement with the SEC relating to Mr. Musk's statement that he was considering taking Tesla private, there have not been any developments in these matters that we deem to be material, and to our knowledge no government agency in any ongoing investigation has concluded that any wrongdoing occurred. As is our normal practice, we have been cooperating and will continue to cooperate with government authorities. We cannot predict the outcome or impact of any ongoing matters. Should the government decide to pursue an enforcement action, there exists the possibility of a material adverse impact on our business, results of operation, prospects, cash flows, and financial position.

We are also subject to various other legal proceedings and claims that arise from the normal course of business activities. If an unfavorable ruling or development were to occur, there exists the possibility of a material adverse impact on our business, results of operations, prospects, cash flows, financial position and brand.

ITEM 1A. RISK FACTORS

You should carefully consider the risks described below together with the other information set forth in this report, which could materially affect our business, financial condition and future results. The risks described below are not the only risks facing our company. Risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition and operating results.

Risks Related to Our Business and Industry

We have experienced in the past, and may experience in the future, delays or other complications in the design, manufacture, launch, production and delivery ramp of new vehicles and other products such as Model 3, our energy storage products and the Solar Roof, which could harm our brand, business, prospects, financial condition and operating results.

We have previously experienced launch, manufacturing, production and delivery ramp delays or other complications in connection with new vehicle models such as Model S, Model X and Model 3, new vehicle features such as the all-wheel drive dual motor drivetrain on Model S and the second version of Autopilot hardware and a significant increase in automation introduced in the manufacture of Model 3. For example, we encountered unanticipated challenges, such as certain supply chain constraints, that led to initial delays in producing Model X. Similarly, we experienced certain challenges in the production of Model 3 that led to delays in its ramp. Moreover, in the areas of Model 3 production where we had challenges ramping fully automated processes, such as portions of the battery module assembly line, part of the material flow system and two steps of the general assembly line, we reduced the levels of automation and introduced semi-automated or manual processes. If issues like these arise or recur, if our remediation measures and process changes do not continue to be successful or if we experience issues with transitioning to full automation in certain production lines or other planned manufacturing improvements, we could experience issues in sustaining the Model 3 ramp or additional delays in increasing Model 3 production further. Also, if we encounter difficulties in scaling our delivery capabilities for Model 3 or future vehicles and products to high volumes in the U.S. or internationally, our financial condition and operating results could suffer. In addition, because our vehicle models share certain production facilities with other vehicle models, the volume or efficiency of production with respect to one model may impact the production of other models or lead to bottlenecks that impact the production of all models.

We may also experience similar future delays or other complications in bringing to market and ramping production of new vehicles, such as our Tesla Semi truck, our planned Model Y and new Tesla Roadster, our energy storage products and the Solar Roof. Any significant additional delay or other complication in the production of and delivery capabilities for our current products or the development, manufacture, launch, production and delivery capability ramp of our future products, including complications associated with expanding our production capacity, supply chain and delivery systems or obtaining or maintaining regulatory approvals, could materially damage our brand, business, prospects, financial condition and operating results.

We have experienced and may continue to experience delays in realizing our projected timelines and cost and volume targets for the production and ramp of our Model 3 vehicle, which could harm our business, prospects, financial condition and operating results.

Our future business depends in large part on our ability to execute on our plans to manufacture, market and sell the Model 3 vehicle, which we are offering at a lower price point and which we are producing at significantly higher volumes than the Model S or Model X vehicles. We commenced production and initial customer deliveries of Model 3 in July 2017, and since then have achieved a significantly stabilized production rate, including approximately 4,300 vehicles per week during the third quarter of 2018, excluding planned shutdowns. We are continuing to work to

increase Model 3 production to approximately 10,000 units per week. At the Fremont Factory, we expect to continue to increase our Model 3 production rate to approximately 7,000 units per week. Moreover, in China, we are developing plans to start producing approximately 3,000 Model 3 vehicles per week for the local market in China in the initial phase of our Gigafactory 3, which will have progressively increased levels of localization through local sourcing and manufacturing. The timeframe for that is subject to a number of uncertainties, including regulatory approval, supply chain constraints, and the pace of bringing the factory online.

We have limited experience to date in manufacturing vehicles at the high volumes that we recently achieved and to which we anticipate ramping further for Model 3, and to be successful, we will need to complete the implementation and ramp of efficient and cost-effective manufacturing capabilities, processes and supply chains necessary to support such volumes. We are employing a higher degree of automation in the manufacturing processes for Model 3 than we have previously employed, and in some cases we have temporarily reduced the levels of automation and introduced semi-automated or manual processes, for which we are likely to incur additional labor costs. Additional bottlenecks may also arise as we continue to ramp production, and it will be important that we address them promptly and in a cost effective manner. Moreover, our Model 3 production plan has generally required significant investments of cash and management resources, and we expect to deploy additional resources as we further progress our ramp and begin production in new locations in the future, such as China.

Our production plan for Model 3 is based on many key assumptions, including:

- that we will be able to sustain and further expand our high-volume production of Model 3 at the Tesla Factory without exceeding our projected costs and on our projected timeline;
- that we will be able to continue to expand Gigafactory 1 in a timely manner to produce high volumes of quality lithium-ion cells to be integrated into battery modules and finished battery packs and drive unit components for Model 3, including to support production in China as the level of local sourcing and manufacturing there progressively increases, all at costs that allow us to sell Model 3 at our target gross margins;
- that we will be able to build and commence production at additional future facilities, such as in China, to support our international ramp for Model 3 in accordance with our projected costs and timeline;
- that the equipment and processes which we have selected for Model 3 production will be able to accurately manufacture high volumes of Model 3 vehicles within specified design tolerances and with high quality;
- that we will be able to maintain suppliers for the necessary components on terms and conditions that are acceptable to us and that we will be able to obtain high-quality components on a timely basis and in the necessary quantities to support high-volume production; and
- that we will be able to attract, recruit, hire, train and retain skilled employees to operate our planned high-volume production facilities to support Model 3, including at the Tesla Factory and Gigafactory 1, Gigafactory 2 and Gigafactory 3.

If one or more of the foregoing assumptions turns out to be incorrect, our ability to meet our Model 3 projections on time and at volumes and prices that are profitable, the demand for and deliveries of Model 3, as well as our business, prospects, operating results and financial condition, may be materially and adversely impacted.

We may be unable to meet our growing vehicle production, sales and delivery plans and servicing needs, any of which could harm our business and prospects.

Our plans call for achieving and sustaining significant increases in vehicle production and deliveries, particularly for Model 3, to high volumes in a short amount of time. Our ability to achieve these plans will depend upon a number of factors, including our ability to utilize installed manufacturing capacity, achieve the planned production yield and further increase capacity as planned while maintaining our desired quality levels and optimize design and production changes, and our suppliers' ability to support our needs. In addition, we have used and may use in the future a number of new manufacturing technologies, techniques and processes for our vehicles, which we must successfully introduce and scale for high-volume production. For example, we have introduced highly automated production lines, aluminum spot welding systems and high-speed blow forming of certain difficult to stamp vehicle parts. We have also introduced unique design features in our vehicles with different manufacturing challenges, such as large display screens, dual motor drivetrain, Autopilot hardware and falcon-wing doors. We have limited experience developing, manufacturing, selling and servicing, and allocating our available resources among, multiple products simultaneously. If we are unable to realize our plans, our brand, business, prospects, financial condition and operating results could be materially damaged.

Concurrent with the significant planned increase in our vehicle production levels, we will also need to continue to significantly increase sales and deliveries of, and servicing capacity for, our vehicles. Although we have a plan for delivering and servicing significantly increased volumes of vehicles, we have limited experience in marketing, selling, delivering and servicing vehicles at the significantly higher volumes at which we are manufacturing Model 3, and we may face difficulties meeting our sales, delivery and servicing needs in both existing markets as well as new markets into which we expand. In particular, we are targeting for the first time with Model 3 a mass demographic with a broad range of potential customers. While we are producing numerous variants of Model 3 in accordance with the demand that we expect for them, we have limited experience projecting demand in this demographic and we may not be able to generate sales matched to the specific vehicles that we have the capacity to produce, based on vehicle production line constraints and long lead times for procuring certain parts.

Moreover, because we do not have independent dealer networks, we are responsible for delivering all of our vehicles to our customers. To accommodate our volumes, we have deployed a number of delivery models, such as deliveries to customers' homes and workplaces. To the extent that such efforts, some of which have not been previously tested at scale and in different geographies, are unable to achieve our delivery needs, our results may be negatively impacted. Finally, if the reliability of Model 3, which we only recently commenced producing at volume, is worse than we expect, it could overburden our servicing capabilities. If we are unable to ramp up to meet our sales, delivery and servicing targets globally, or our projections on which such targets are based are inaccurate, this could result in negative publicity and damage to our brand and have a material adverse effect on our business, prospects, financial condition and operating results.

Our future growth and success is dependent upon consumers' willingness to adopt electric vehicles and specifically our vehicles, especially in the mass market demographic which we are targeting with Model 3.

Our growth is highly dependent upon the adoption by consumers of alternative fuel vehicles in general and electric vehicles in particular. Although we have successfully grown demand for our vehicles thus far, there is no guarantee of such future demand, or that our vehicles will not compete with one another in the market. Moreover, the Model 3 mass market demographic is larger, but more competitive, than the demographic for Model S and Model X, and additional electric vehicles are entering the market.

If the market for electric vehicles in general and Tesla vehicles in particular does not develop as we expect, or develops more slowly than we expect, or if demand for our vehicles decreases in key and other markets, our business, prospects, financial condition and operating results could be harmed. We have only recently begun high volume production of vehicles and are still at an early-stage and have limited resources relative to our competitors, and the market for alternative fuel vehicles is rapidly evolving. As a result, the market for our vehicles could be affected by numerous factors, such as:

- perceptions about electric vehicle features, quality, safety, performance and cost;
- perceptions about the limited range over which electric vehicles may be driven on a single battery charge;
- competition, including from other types of alternative fuel vehicles, plug-in hybrid electric vehicles and high fuel-economy internal combustion engine vehicles;
- volatility in the cost of oil and gasoline;
- government regulations and economic incentives;
- access to charging facilities; and
- concerns about our future viability.

We are dependent on our suppliers, the majority of which are single-source suppliers, and the inability of these suppliers to deliver necessary components of our products according to our schedule and at prices, quality levels and volumes acceptable to us, or our inability to efficiently manage these components, could have a material adverse effect on our financial condition and operating results.

Our products contain numerous purchased parts which we source globally from hundreds of direct suppliers, the majority of whom are currently single-source suppliers, although we attempt to qualify and obtain components from multiple sources whenever feasible. Any significant unanticipated demand would require us to procure additional components in a short amount of time, and in the past we have also replaced certain suppliers because of their failure to provide components that met our quality control standards. While we believe that we will be able to secure additional or alternate sources of supply for most of our components in a relatively short time frame, there is no assurance that we will be able to do so or develop our own replacements for certain highly customized components of our products. Moreover, we have signed long-term agreements with Panasonic to be our manufacturing partner and supplier for lithium-ion cells at Gigafactory 1 in Nevada and PV cells and panels at Gigafactory 2 in Buffalo, New York. If we encounter unexpected difficulties with key suppliers such as Panasonic, and if we are unable to fill these needs from other suppliers, we could experience production delays and potential loss of access to important technology and parts for producing, servicing and supporting our products.

This limited, and in many cases single source, supply chain exposes us to multiple potential sources of delivery failure or component shortages for the production of our products, such as those which we experienced in 2012 and 2016 in connection with our slower-than-planned Model S and Model X ramps. Furthermore, unexpected changes in business conditions, materials pricing, labor issues, wars, governmental changes, natural disasters such as the March 2011 earthquakes in Japan and other factors beyond our and our suppliers' control, could also affect our suppliers' ability to deliver components to us on a timely basis. The loss of any single or limited source supplier or the disruption in the supply of components from these suppliers could lead to product design changes and delays in product deliveries to

our customers, which could hurt our relationships with our customers and result in negative publicity, damage to our brand and a material and adverse effect on our business, prospects, financial condition and operating results.

Changes in our supply chain have also resulted in the past, and may result in the future, in increased cost. We have also experienced cost increases from certain of our suppliers in order to meet our quality targets and development timelines as well as due to design changes that we made, and we may experience similar cost increases in the future. Certain suppliers have sought to renegotiate the terms of supply arrangements. Additionally, we are negotiating with existing suppliers for cost reductions, seeking new and less expensive suppliers for certain parts, and attempting to redesign certain parts to make them less expensive to produce. If we are unsuccessful in our efforts to control and reduce supplier costs, our operating results will suffer.

In particular, because we are producing Model 3 at significantly higher volumes than any of our other products to date, the negative impact of any delays or other constraints with respect to our suppliers for Model 3 could be substantially greater than any supply chain-related issues experienced with respect to our other products. As some of our suppliers for Model S and Model X do not have the resources, equipment or capability to provide components for the Model 3 that are in line with our requirements, we have engaged a significant number of new suppliers, and we need such suppliers to sustainably ramp in accordance with our ongoing ramp of Model 3 and deliver according to our schedule. There is no assurance that these suppliers will ultimately be able to meet on a sustained basis our cost, quality and volume needs, or do so at the times needed. For example, we may experience issues increasing the level of localization through local sourcing and manufacturing in China as we try to accelerate our manufacturing timeline there for the local market. Furthermore, as the scale of our vehicle production increases, we will need to accurately forecast, purchase, warehouse and transport to our manufacturing facilities components at much higher volumes than we have experience with. If we are unable to accurately match the timing and quantities of component purchases to our actual needs, or successfully implement automation, inventory management and other systems to accommodate the increased complexity in our supply chain, we may incur unexpected production disruption, storage, transportation and write-off costs, which could have a material adverse effect on our financial condition and operating results.

Future problems or delays in expanding Gigafactory 1 or ramping operations there could negatively affect the production and profitability of our products, such as Model 3 and our energy storage products.

To lower the cost of cell production and produce cells in high volume, we have vertically integrated the production of lithium-ion cells and finished battery packs for Model 3 and energy storage products at Gigafactory 1. While Gigafactory 1 began producing lithium-ion cells for energy storage products in January 2017 and has since begun producing lithium-ion cells for Model 3, we have no other direct experience in the production of lithium-ion cells. Given the size and complexity of this undertaking, it is possible that future events could result in Gigafactory 1 taking longer to ramp production and expand than we currently anticipate. Moreover, as we try to accelerate our manufacturing timeline in China for the local market, we expect that we will need additional production at Gigafactory 1 to support vehicle production in China as the level of local sourcing and manufacturing there progressively increases. In order to achieve our volume and gross margin targets for Model 3 and the anticipated ramp in production of energy storage products, we must continue to sustain and ramp significant cell production from Gigafactory 1, which, among other things, requires Panasonic to successfully operate and further ramp its all-new cell production lines at significant volumes. Although Panasonic has a long track record of producing high-quality cells at significant volume at its factories in Japan, it has limited experience with cell production at Gigafactory 1. In addition, we produce several components for Model 3, such as battery modules incorporating the lithium-ion cells produced by Panasonic, at Gigafactory 1. Some of the manufacturing lines for such components took longer than anticipated to ramp to their full capacity. While we have largely overcome this bottleneck after deploying multiple semi-automated lines and improving our original lines, we continue to identify and address smaller bottlenecks in order to continue to increase the production rate. If we are unable to maintain Gigafactory 1 production at its current levels and costs, and ramp additionally over time as needed, and if we or Panasonic are unable to attract, hire and retain a substantial number of highly skilled personnel, our ability to supply battery packs or other components for Model 3 and our other products could be negatively impacted which could negatively affect our brand and harm our business, prospects, financial condition and operating results.

If our vehicles or other products that we sell or install fail to perform as expected, our ability to develop, market and sell our products and services could be harmed.

If our vehicles or our energy products contain defects in design and manufacture that cause them not to perform as expected or that require repair, or certain features of our vehicles, such as full self-driving, take longer than expected to become enabled or are legally restricted, our ability to develop, market and sell our products and services could be harmed. For example, the operation of our vehicles is highly dependent on software, which is inherently complex and

may contain latent defects and errors or be subject to external attacks. Issues experienced by vehicle customers have included those related to the software for the 17 inch display screen, the panoramic roof and the 12-volt battery in the Model S and the seats and doors in the Model X. Although we attempt to remedy any issues we observe in our products as effectively and rapidly as possible, such efforts may not be timely, may hamper production or may not be to the satisfaction of our customers. While we have performed extensive internal testing on the products we manufacture, we currently have a limited frame of reference by which to evaluate detailed long-term quality, reliability, durability and performance characteristics of our battery packs, powertrains, vehicles and energy storage products. There can be no assurance that we will be able to detect and fix any defects in our products prior to their sale to or installation for consumers.

Any product defects, delays or legal restrictions on product features, or other failure of our products to perform as expected could harm our reputation and result in delivery delays, product recalls, product liability claims, significant warranty and other expenses, and could have a material adverse impact on our business, financial condition, operating results and prospects.

If we fail to scale our business operations and otherwise manage future growth and adapt to new conditions effectively as we rapidly grow our company, including internationally, we may not be able to produce, market, sell and service our products successfully.

Any failure to manage our growth effectively could materially and adversely affect our business, prospects, operating results and financial condition. We continue to expand our operations significantly, including internationally and by a transition to high-volume vehicle production with the ramp of Model 3 and the worldwide sales, delivery and servicing of a significantly higher number of vehicles than our current vehicle fleet in the coming years. Furthermore, we are developing and growing our energy storage product and solar business worldwide, including in countries where we have limited or no previous operating experience in connection with our vehicle business. Our future operating results depend to a large extent on our ability to manage our expansion and growth successfully. We may not be successful in undertaking this global expansion if we are unable to control expenses and avoid cost overruns and other unexpected operating costs; establish sufficient worldwide automobile sales, delivery, service and Supercharger facilities in a timely manner; adapt our products and conduct our operations to meet local requirements; implement the required infrastructure, systems and processes; and find and hire a significant number of additional manufacturing, engineering, service, electrical installation, construction and administrative personnel.

In particular, we plan to expand our manufacturing capabilities outside of the U.S., where we have limited experience operating a factory or managing related regulatory, financing and other challenges. For example, as part of our continuing work to increase Model 3 production to approximately 10,000 units per week, we are developing plans to start producing approximately 3,000 Model 3 vehicles per week for the local market in China in the initial phase of our Gigafactory 3, although the timeframe for that is subject to a number of uncertainties, including regulatory approval, supply chain constraints, and the pace of bringing the factory online. As we expect to commence our manufacturing activities in China using progressively increased levels of localization through local sourcing and manufacturing, we expect that we will need to initially support manufacturing activities there with production processes at Gigafactory 1. Moreover, local manufacturing may be critical to our expansion and sales in China, which is the largest market for electric vehicles in the world. Our sales of Model S and Model X in China have been negatively impacted by recently-increased tariffs imposed by the Chinese government on automobiles manufactured in the U.S., such as our vehicles, and our costs for producing our vehicles in the U.S. have also been affected by recently-increased import duties on certain components sourced from China. If we are not able to establish manufacturing activities in China and other jurisdictions to minimize the impact of such unfavorable tariffs, duties or costs, or ramp our production capabilities at Gigafactory 1 to support such vehicle manufacturing activities, our ability to compete in such jurisdictions, and our operating results, business and prospects, will be harmed.

If we are unable to achieve our targeted manufacturing costs for our vehicles, including Model 3, our financial condition and operating results will suffer.

While we have experienced and expect in the future to realize cost reductions by both us and our suppliers, there is no guarantee we will be able to achieve sufficient cost savings to reach our gross margin and profitability goals, including for the least expensive variant of Model 3 that we ultimately expect to produce. We incur significant costs related to procuring the materials required to manufacture our vehicles, assembling vehicles and compensating our personnel. We may also incur substantial costs or cost overruns in utilizing and increasing the production capability of our vehicle manufacturing facilities, such as for Model 3 both in the U.S. and internationally. Furthermore, if we are unable to achieve production cost targets on our vehicles pursuant to our plans, we may not be able to meet our gross margin and other financial targets. Many of the factors that impact our manufacturing costs are beyond our control, such as potential increases in the costs of our materials and components, such as lithium, nickel and other components of our battery cells or aluminum used to produce body panels. If we are unable to continue to control and reduce our manufacturing costs, our operating results, business and prospects will be harmed.

Increases in costs, disruption of supply or shortage of materials, in particular for lithium-ion cells, could harm our business.

We may experience increases in the cost or a sustained interruption in the supply or shortage of materials. Any such increase, supply interruption or shortage could materially and negatively impact our business, prospects, financial condition and operating results. We use various materials in our business including aluminum, steel, lithium, nickel, copper and cobalt, as well as lithium-ion cells from suppliers. The prices for these materials fluctuate, and their available supply may be unstable, depending on market conditions and global demand for these materials, including as a result of increased production of electric vehicles and energy storage products by our competitors, and could adversely affect our business and operating results. For instance, we are exposed to multiple risks relating to lithium-ion cells. These risks include:

- an increase in the cost, or decrease in the available supply, of materials used in the cells;
- disruption in the supply of cells due to quality issues or recalls by battery cell manufacturers or any issues that may arise with respect to cells manufactured at our own facilities; and
- fluctuations in the value of the Japanese yen against the U.S. dollar as our battery-cell purchases for Model S and Model X and some raw materials for cells used in Model 3 and energy storage products are currently denominated in Japanese yen.

Our business is dependent on the continued supply of battery cells for the battery packs used in our vehicles and energy storage products. While we believe several sources of the battery cells are available for such battery packs, and expect to eventually rely substantially on battery cells manufactured at our own facilities, we have to date fully qualified only a very limited number of suppliers for the cells used in such battery packs and have very limited flexibility in changing cell suppliers. In particular, we have fully qualified only one supplier for the cells used in battery packs for our current production vehicles. Any disruption in the supply of battery cells from such suppliers could disrupt production of our vehicles and of the battery packs we produce for energy products until such time as a different supplier is fully qualified. Furthermore, fluctuations or shortages in petroleum and other economic conditions may cause us to experience significant increases in freight charges and material costs. Substantial increases in the prices for our materials or prices charged to us, such as those charged by battery cell suppliers, would increase our operating costs, and could reduce our margins if we cannot recoup the increased costs through increased vehicle prices. Any attempts to increase vehicle prices in response to increased material costs could result in cancellations of vehicle orders and reservations and therefore materially and adversely affect our brand, image, business, prospects and operating results.

We may become subject to product liability claims, which could harm our financial condition and liquidity if we are not able to successfully defend or insure against such claims.

Although we design our vehicles to be the safest vehicles on the road, product liability claims, even those without merit, could harm our business, prospects, operating results and financial condition. The automobile industry in particular experiences significant product liability claims and we face inherent risk of exposure to claims in the event our vehicles do not perform or are claimed to not have performed as expected. As is true for other automakers, our cars have been involved and we expect in the future will be involved in crashes resulting in death or personal injury, and such crashes where Autopilot is engaged are the subject of significant public attention. We have experienced and we expect to continue to face claims arising from or related to misuse or claimed failures of new technologies that we are pioneering, including Autopilot in our vehicles. Moreover, as our solar energy systems and energy storage products generate and store electricity, they have the potential to cause injury to people or property. A successful product liability claim against us could require us to pay a substantial monetary award. Our risks in this area are particularly pronounced given the relatively limited number of vehicles and energy storage products delivered to date and limited field experience of our products. Moreover, a product liability claim could generate substantial negative publicity about our products and business and could have a material adverse effect on our brand, business, prospects and operating results. In most jurisdictions, we generally self-insure against the risk of product liability claims for vehicle exposure, meaning that any product liability claims will likely have to be paid from company funds, not by insurance.

The markets in which we operate are highly competitive, and we may not be successful in competing in these industries. We currently face competition from new and established domestic and international competitors and expect to face competition from others in the future, including competition from companies with new technology.

The worldwide automotive market, particularly for alternative fuel vehicles, is highly competitive today and we expect it will become even more so in the future. There is no assurance that our vehicles will be successful in the respective markets in which they compete. A significant and growing number of established and new automobile manufacturers, as well as other companies, have entered or are reported to have plans to enter the alternative fuel vehicle market, including hybrid, plug-in hybrid and fully electric vehicles, as well as the market for self-driving technology and applications. In some cases, such competitors have announced an intention to produce electric vehicles exclusively at some point in the future. Most of our current and potential competitors have significantly greater financial, technical, manufacturing, marketing, vehicle sales networks and other resources than we do and may be able to devote greater resources to the design, development, manufacturing, distribution, promotion, sale and support of their products. In particular, some competitors have also announced plans to compete with us in important and large

markets for electric vehicles, such as China. Increased competition could result in lower vehicle unit sales, price reductions, revenue shortfalls, loss of customers and loss of market share, which could harm our business, prospects, financial condition and operating results. In addition, our Model 3 vehicle faces competition from existing and future automobile manufacturers in the extremely competitive entry-level premium sedan market, including Audi, BMW, Lexus and Mercedes.

The solar and energy storage industries are highly competitive. We face competition from other manufacturers, developers and installers of solar and energy storage systems, as well as from large utilities. Decreases in the retail prices of electricity from utilities or other renewable energy sources could make our products less attractive to customers and lead to an increased rate of customer defaults under our existing long-term leases and power purchase agreements. Moreover, solar panel and lithium-ion battery prices have declined and are continuing to decline. As we increase our battery and solar manufacturing capabilities, including at Gigafactory 1 and Gigafactory 2, future price declines may harm our ability to produce energy storage systems and solar systems at competitive prices.

If we are unable to establish and maintain confidence in our long-term business prospects among consumers, analysts and within our industries, then our financial condition, operating results, business prospects and stock price may suffer materially.

Consumers may be less likely to purchase our products if they are not convinced that our business will succeed or that our service and support and other operations will continue in the long term. Similarly, suppliers and other third parties will be less likely to invest time and resources in developing business relationships with us if they are not convinced that our business will succeed. Accordingly, in order to build and maintain our business, we must maintain confidence among customers, suppliers, analysts, ratings agencies and other parties in our long-term financial viability and business prospects. Maintaining such confidence may be particularly complicated by certain factors, such as our limited operating history, negative press, customer unfamiliarity with our products, any delays in scaling manufacturing, delivery and service operations to meet demand, competition and uncertainty regarding the future of electric vehicles or our other products and services, our quarterly production and sales performance compared with market expectations, and any other negative publicity related to us. Many of these factors are largely outside our control, and any negative perceptions about our long-term business prospects, even if exaggerated or unfounded, such as speculation regarding the sufficiency or stability of our management team, could harm our business and make it more difficult to raise additional funds if needed.

Our plan to generate ongoing growth and demand, including by expanding our network of Tesla stores, galleries, delivery hubs, service centers and Superchargers, will require significant cash investments and management resources and may not meet expectations with respect to additional sales or installations of our products or availability of Superchargers.

We plan to generate ongoing growth and demand, including by globally expanding our network of Tesla stores, galleries, delivery hubs, service centers, mobile service offerings and Superchargers. These plans require significant cash investments and management resources and may not meet our expectations with respect to additional sales or installations of our products. This ongoing global expansion, which includes planned entry into markets in which we have limited or no experience selling, delivering, installing and/or servicing our products, and which may pose legal, regulatory, labor, cultural and political challenges that we have not previously encountered, may not have the desired effect of increasing sales and installations and expanding our brand presence to the degree we are anticipating. Furthermore, the increasing number of Tesla vehicles will require us to continue to increase the number of our Supercharger stations and connectors significantly in locations throughout the world. If we fail to do so in a timely manner, our customers could become dissatisfied, which could adversely affect sales of our vehicles. We will also need to ensure we are in compliance with any regulatory requirements applicable to the sale, installation and service of our products, the sale of electricity generated through our solar energy systems and operation of Superchargers in those jurisdictions, which could take considerable time and expense. If we experience any delays or cannot meet customer expectations in expanding our customer infrastructure network, or our expansion plans are not successful in continuing to grow demand, this could lead to a decrease or stagnation in sales or installations of our products and could negatively impact our business, prospects, financial condition and operating results.

We face risks associated with our international operations and expansion, including unfavorable regulatory, political, tax and labor conditions, and with establishing ourselves in new markets, all of which could harm our business.

We currently have international operations and subsidiaries in various countries and jurisdictions that are subject to legal, political and regulatory requirements and social and economic conditions that may be very different from those affecting us domestically. Additionally, as part of our growth strategy, we will continue to expand our sales, delivery, service and Supercharger locations internationally. International expansion requires us to make significant expenditures, including the establishment of local operating entities, hiring of local employees and establishing facilities in advance of generating any revenue.

We are subject to a number of risks associated with international business activities that may increase our costs, impact our ability to sell our products and require significant management attention. These risks include conforming our products to various international regulatory and safety requirements as well as charging and other electric infrastructures, difficulty in establishing, staffing and managing foreign operations, challenges in attracting customers, foreign government taxes, regulations and permit requirements, our ability to enforce our contractual rights; trade restrictions, customs regulations, tariffs and price or exchange controls, and preferences of foreign nations for domestically manufactured products. For example, in China, which is a key market for us, certain products such as automobiles manufactured in the U.S. have become subject to a recently increased tariff imposed by the government, which could remain in place for an undetermined length of time, be further increased in the future and/or lead consumers to postpone or choose another vehicle brand subject to lower tariffs or no tariffs. Moreover, recently increased import duties on certain components used in our products that are sourced from China may increase our costs and negatively impact our operating results.

Our vehicles and energy storage products make use of lithium-ion battery cells, which have been observed to catch fire or vent smoke and flame, and such events have raised concerns, and future events may lead to additional concerns, about the batteries used in automotive applications.

The battery packs that we produce make use of lithium-ion cells. On rare occasions, lithium-ion cells can rapidly release the energy they contain by venting smoke and flames in a manner that can ignite nearby materials as well as other lithium-ion cells. While we have designed the battery pack to passively contain any single cell's release of energy without spreading to neighboring cells, there can be no assurance that a field or testing failure of our vehicles or other battery packs that we produce will not occur, which could subject us to lawsuits, product recalls or redesign efforts, all of which would be time consuming and expensive. Also, negative public perceptions regarding the suitability of lithium-ion cells for automotive applications or any future incident involving lithium-ion cells such as a vehicle or other fire, even if such incident does not involve our vehicles or energy storage products, could seriously harm our business.

In addition, we store a significant number of lithium-ion cells at our facilities and plan to produce high volumes of cells and battery modules and packs at Gigafactory 1. Any mishandling of battery cells may cause disruption to the operation of our facilities. While we have implemented safety procedures related to the handling of the cells, there can be no assurance that a safety issue or fire related to the cells would not disrupt our operations. Such damage or injury could lead to adverse publicity and potentially a safety recall. Moreover, any failure of a competitor's electric vehicle or energy storage product may cause indirect adverse publicity for us and our products. Such adverse publicity could negatively affect our brand and harm our business, prospects, financial condition and operating results.

If we fail to effectively grow and manage the residual, financing and credit risks related to our vehicle financing programs, our business may suffer.

We offer vehicle financing arrangements for Model S and Model X through our local subsidiaries in the U.S., Canada, Germany and the UK, including leasing directly through certain of those subsidiaries. Under a lease held directly by us, we typically receive only a very small portion of the total vehicle purchase price at the time of lease, followed by a stream of payments over the term of the lease. The profitability of the leasing program depends on our ability to accurately project residual values, secure adequate financing and/or business partners to fund and grow this program, and screen for and manage customer credit risk. We expect the need for leasing and other financing options will continue to be important to Model S and Model X deliveries and for Model 3 in the long term. If we are unable to adequately fund our leasing program with internal funds, or partners or other external financing sources, and compelling alternative financing programs are not available for our customers, we may be unable to grow our sales. Furthermore, if our leasing business grows substantially, our business may suffer if we cannot effectively manage the greater levels of residual and credit risks resulting from growth. Finally, if we do not successfully monitor and comply with applicable national, state and/or local financial regulations and consumer protection laws governing lease transactions, we may become subject to enforcement actions or penalties, either of which may harm our business.

Moreover, we have provided resale value guarantees to customers with certain financing programs, under which such customers may sell their vehicles back to us at certain points in time at pre-determined resale values. If the resale values of any vehicles resold or returned to us pursuant to these programs are materially lower than our estimates, our profitability and/or liquidity could be negatively impacted.

The unavailability, reduction or elimination of, or unfavorable determinations with respect to, government and economic incentives in the U.S. and abroad supporting the development and adoption of electric vehicles or solar energy could have some impact on demand for our products and services.

We and our customers currently benefit from certain government and economic incentives supporting the development and adoption of electric vehicles. In the U.S. and abroad, such incentives include, among other things, tax credits or rebates that encourage the purchase of electric vehicles. In Norway, for example, the purchase of electric vehicles is not currently subject to import taxes, taxes on non-recurring vehicle fees, the 25% value added tax or the purchase taxes that apply to the purchase of gas-powered vehicles. Notably, the quantum of incentive programs promoting electric vehicles is a tiny fraction of the amount of subsidies that are provided to gas-powered vehicles through the oil and gas industries. Nevertheless, even the limited benefits from such programs could be reduced, eliminated or exhausted. For example, in July 2018, a previously available incentive for purchases of Model 3 in Ontario, Canada was cancelled and Tesla buyers in Germany lost access to electric vehicle incentives for a short period of time beginning late last year. In April 2017 and January 2016, respectively, previously available incentives in Hong Kong and Denmark that favored the purchase of electric vehicles expired, negatively impacting sales. Moreover, under current regulations, a $7,500 federal tax credit available in the U.S. for the purchase of our vehicles will begin to phase out over the course of 2019. In addition, California implemented regulations phasing out a $2,500 cash rebate on qualified electric vehicles for high-income consumers, which became effective in March 2016. In certain circumstances, there is pressure from the oil and gas lobby or related special interests to bring about such developments, which could have some negative impact on demand for our vehicles.

In addition, certain governmental rebates, tax credits and other financial incentives that are currently available with respect to our solar and energy storage product businesses allow us to lower our installation costs and cost of capital and encourage customers to buy our products and investors to invest in our solar financing funds. However, these incentives may expire on a particular date when the allocated funding is exhausted, reduced or terminated as renewable energy adoption rates increase, often without warning. For example, the U.S. federal government currently offers a 30% investment tax credit ("ITC") for the installation of solar power facilities and energy storage systems that are charged from a co-sited solar power facility. The ITC is currently scheduled to decline to 10%, and expire altogether for customer-owned residential systems, by January 2022. Likewise, in jurisdictions where net energy metering is currently available, our customers receive bill credits from utilities for energy that their solar energy systems generate and export to the grid in excess of the electric load they use. Several jurisdictions have reduced or eliminated the benefit available under net energy metering, or have proposed to do so. Such reductions in or termination of governmental incentives could adversely impact our results by making our products less competitive for potential customers, increasing our cost of capital and adversely impacting our ability to attract investment partners and to form new financing funds for our solar and energy storage assets. Additionally, the enactment of the Tax Cuts and Jobs Act in the U.S. could potentially increase the cost, and decrease the availability, of renewable energy financing, by reducing the value of depreciation benefits associated with, and the overall investor tax capacity needed to monetize, renewable energy projects. Such changes could lower the overall investment willingness and capacity for such projects available in the market.

Moreover, we and our fund investors claim the ITC and certain state incentives in amounts based on the fair market value of our solar and energy storage systems. Although we obtain independent appraisals to support the claimed fair market values, the relevant governmental authorities have audited such values and in certain cases have determined that they should be lower, and they may do so again in the future. Such determinations may result in adverse tax consequences and/or our obligation to make indemnification or other payments to our funds or fund investors.

Any failure by us to realize the expected benefits of our substantial investments and commitments with respect to the manufacture of PV cells and modules, including if we are unable to comply with the terms of our agreement with the Research Foundation for the State University of New York relating to our Gigafactory 2, could result in negative consequences for our business.

We own certain PV cell and module manufacturing and technology assets, and a build-to-suit lease arrangement with the Research Foundation for the State University of New York (the "SUNY Foundation"). This agreement with the SUNY Foundation provides for the construction of Gigafactory 2 in Buffalo, New York, which at full capacity we expect will be capable of producing at least 1.0 gigawatt of PV cells and modules annually, including for our Solar Roof. Under this agreement, we are obligated to, among other things, employ specified minimum numbers of personnel in the State of New York and spend or incur $5.0 billion in combined capital, operational expenses, costs of goods sold and other costs in the State of New York during the 10-year period following the completion of all construction and related infrastructure, the arrival of manufacturing equipment, and the receipt of certain permits and other specified items at Gigafactory 2. If we fail in any year over the course of the term of the agreement to meet these obligations, we would be obligated to pay a "program payment" of $41.2 million to the SUNY Foundation in such year. Any inability on our part to comply with the requirements of this agreement may result in the payment of significant amounts to the SUNY Foundation, the termination of our lease at Gigafactory 2, and/or the need to secure an alternative supply of PV cells and modules for products such as our Solar Roof. Moreover, if we are unable to utilize our manufacturing and technology assets in accordance with our expectations, we may have to recognize accounting charges pertaining to the write-off of such assets. Any of the foregoing events could have a material adverse effect on our business, prospects, financial condition and operating results.

If we are unable to attract and/or retain key employees and hire qualified personnel, our ability to compete could be harmed.

The loss of the services of any of our key employees could disrupt our operations, delay the development and introduction of our vehicles and services, and negatively impact our business, prospects and operating results. In particular, we are highly dependent on the services of Elon Musk, our Chief Executive Officer, and Jeffrey B. Straubel, our Chief Technology Officer.

None of our key employees is bound by an employment agreement for any specific term and we may not be able to successfully attract and retain senior leadership necessary to grow our business. Our future success depends upon our ability to attract and retain executive officers and other key technology, sales, marketing, engineering, manufacturing and support personnel, especially to support our high-volume manufacture of vehicles and expansion plans, and any failure or delay in doing so could adversely impact our business, prospects, financial condition and operating results.

Key talent may leave Tesla due to various factors, such as a very competitive labor market for talented individuals with automotive or technology experience, or any negative publicity related to us. In California, Nevada and other regions where we have operations, there is increasing competition for individuals with skillsets needed for our business, including specialized knowledge of electric vehicles, software engineering, manufacturing engineering, and other skills such as electrical and building construction expertise. This competition affects both our ability to retain key employees and hire new ones. Moreover, we recently conducted a reduction in force in order to optimize our organizational structure and reduce duplicative costs, and certain senior personnel have also departed for various reasons. Our continued success depends upon our continued ability to hire new employees in a timely manner, especially to support our expansion plans, and to retain current employees or replace departed senior employees with qualified and experienced individuals, which is typically a time-consuming process. Additionally, we compete with both mature and prosperous companies that have far greater financial resources than we do and start-ups and emerging companies that promise short-term growth opportunities. Difficulties in retaining current employees or recruiting new ones could have an adverse effect on our performance and results.

We are highly dependent on the services of Elon Musk, our Chief Executive Officer.

We are highly dependent on the services of Elon Musk, our Chief Executive Officer and largest stockholder. Although Mr. Musk spends significant time with Tesla and is highly active in our management, he does not devote his full time and attention to Tesla. Mr. Musk also currently serves as Chief Executive Officer and Chief Technical Officer of Space Exploration Technologies Corp., a developer and manufacturer of space launch vehicles, and is involved in other emerging technology ventures.

We are continuously expanding and improving our information technology systems and use security measures designed to protect our systems against breaches and cyber-attacks. If these efforts are not successful, our business and operations could be disrupted and our operating results and reputation could be harmed.

We are continuously expanding and improving our information technology systems, including implementing new internally developed systems, to assist us in the management of our business. In particular, our volume production of multiple vehicles necessitates continued development, maintenance and improvement of our information technology systems in the U.S. and abroad, which include product data management, procurement, inventory management, production planning and execution, sales, service and logistics, dealer management, financial, tax and regulatory compliance systems. We also maintain information technology measures designed to protect us against intellectual property theft, data breaches and other cyber-attacks. The implementation, maintenance and improvement of these systems require significant management time, support and cost. Moreover, there are inherent risks associated with developing, improving and expanding our core systems as well as implementing new systems, including the disruption of our data management, procurement, manufacturing execution, finance, supply chain and sales and service processes. These risks may affect our ability to manage our data and inventory, procure parts or supplies or manufacture, sell, deliver and service vehicles, or achieve and maintain compliance with, or realize available benefits under, tax laws and other applicable regulations.

We cannot be sure that these systems or their required functionality will be effectively implemented, maintained or expanded as planned. If we do not successfully implement, maintain or expand these systems as planned, our operations may be disrupted, our ability to accurately and/or timely report our financial results could be impaired, and deficiencies may arise in our internal control over financial reporting, which may impact our ability to certify our financial results. Moreover, our proprietary information could be compromised or misappropriated and our reputation may be adversely affected. If these systems or their functionality do not operate as we expect them to, we may be required to expend significant resources to make corrections or find alternative sources for performing these functions.

Any unauthorized control or manipulation of our products' systems could result in loss of confidence in us and our products and harm our business.

Our products contain complex information technology systems. For example, our vehicles and energy storage products are designed with built-in data connectivity to accept and install periodic remote updates from us to improve or update their functionality. We have designed, implemented and tested security measures intended to prevent unauthorized access to our information technology networks, our products and their systems. However, hackers have reportedly attempted, and may attempt in the future, to gain unauthorized access to modify, alter and use such networks, products and systems to gain control of, or to change, our products' functionality, user interface and performance characteristics, or to gain access to data stored in or generated by our products. We encourage reporting of potential vulnerabilities in the security of our products via our security vulnerability reporting policy, and we aim to remedy any reported and verified vulnerability. Accordingly, we have received reports of potential vulnerabilities in the past and have attempted to remedy them. However, there can be no assurance that vulnerabilities will not be exploited in the future before they can be identified, or that our remediation efforts are or will be successful.

Any unauthorized access to or control of our products or their systems or any loss of data could result in legal claims or proceedings. In addition, regardless of their veracity, reports of unauthorized access to our products, their systems or data, as well as other factors that may result in the perception that our products, their systems or data are capable of being "hacked," could negatively affect our brand and harm our business, prospects, financial condition and operating results. We have been the subject of such reports in the past.

We are subject to various environmental and safety laws and regulations that could impose substantial costs upon us and negatively impact our ability to operate our manufacturing facilities.

As a manufacturing company, including with respect to facilities such as the Tesla Factory, Gigafactory 1 and Gigafactory 2, we are subject to complex environmental, health and safety laws and regulations at numerous jurisdictional levels in the U.S. and abroad, including laws relating to the use, handling, storage, disposal and human exposure to hazardous materials. The costs of compliance, including remediating contamination if any is found on our properties and any changes to our operations mandated by new or amended laws, may be significant. We may also face unexpected delays in obtaining permits and approvals required by such laws in connection with our manufacturing facilities, which would hinder our operation of these facilities. Such costs and delays may adversely impact our business prospects and operating results. Furthermore, any violations of these laws may result in substantial fines and penalties, remediation costs, third party damages, or a suspension or cessation of our operations.

Our business may be adversely affected by any disruptions caused by union activities.

It is common for employees at companies with significant manufacturing operations such as us to belong to a union, which can result in higher employee costs and increased risk of work stoppages. Moreover, regulations in some jurisdictions outside of the U.S. mandate employee participation in industrial collective bargaining agreements and work councils with certain consultation rights with respect to the relevant companies' operations. Although we work diligently to provide the best possible work environment for our employees, they may still decide to join or seek recognition to form a labor union, or we may be required to become a union signatory. The United Automobile Workers (UAW) has been engaged in a campaign to organize manufacturing operations at Tesla. As part of that campaign, the UAW has filed with the National Labor Relations Board (NLRB) a series of unfair labor practice charges against Tesla on which a hearing recently concluded. We cannot predict the timing of the NLRB's decision, and an unfavorable outcome for Tesla may have a negative impact on the perception of Tesla's treatment of our employees. Furthermore, we are directly or indirectly dependent upon companies with unionized work forces, such as parts suppliers and trucking and freight companies, and work stoppages or strikes organized by such unions could have a material adverse impact on our business, financial condition or operating results. If a work stoppage occurs, it

could delay the manufacture and sale of our products and have a material adverse effect on our business, prospects, operating results or financial condition.

Our products and services are subject to substantial regulations, which are evolving, and unfavorable changes or failure by us to comply with these regulations could substantially harm our business and operating results.

Motor vehicles are subject to substantial regulation under international, federal, state and local laws. We incur significant costs in complying with these regulations and may be required to incur additional costs to comply with any changes to such regulations, and any failures to comply could result in significant expenses, delays or fines. We are subject to laws and regulations applicable to the supply, manufacture, import, sale and service of automobiles internationally. For example, in countries outside of the U.S., we are required to meet standards relating to vehicle safety, fuel economy and emissions, among other things, that are often materially different from requirements in the U.S., thus resulting in additional investment into the vehicles and systems to ensure regulatory compliance in those countries. This process may include official review and certification of our vehicles by foreign regulatory agencies prior to market entry, as well as compliance with foreign reporting and recall management systems requirements.

Additionally, our vehicles are equipped with a suite of driver-assistance features called Autopilot, which help assist drivers with certain tedious and potentially dangerous aspects of road travel, but require drivers to remain engaged. There is a variety of international, federal and state regulations that may apply to self-driving vehicles, which include many existing vehicle standards that were not originally intended to apply to vehicles that may not have a driver. Such regulations continue to rapidly change, which increases the likelihood of a patchwork of complex or conflicting regulations, or may delay products or restrict self-driving features and availability, any of which could adversely affect our business.

Moreover, as a manufacturer and installer of solar generation and energy storage systems and a supplier of electricity generated and stored by the solar energy and energy storage systems we install for customers, we are impacted by federal, state and local regulations and policies concerning electricity pricing, the interconnection of electricity generation and storage equipment with the electric grid, and the sale of electricity generated by third-party owned systems. For example, existing or proposed regulations and policies would permit utilities to limit the amount of electricity generated by our customers with their solar energy systems, charge fees and penalties to our customers relating to the purchase of energy other than from the grid, adjust electricity rate designs such that the price of our solar products may not be competitive with that of electricity from the grid, restrict us and our customers from transacting under our power purchase agreements or qualifying for government incentives and benefits that apply to solar power, and limit or eliminate net energy metering. If such regulations and policies remain in effect or are adopted in other jurisdictions, or if other regulations and policies that adversely impact the interconnection or use of our solar and energy storage systems are introduced, they could deter potential customers from purchasing our solar and energy storage products, threaten the economics of our existing contracts and cause us to cease solar and energy storage system sales and operations in the relevant jurisdictions, which could harm our business, prospects, financial condition and results of operations.

Failure to comply with various privacy and consumer protection laws to which we are subject could harm the Company.

Our privacy policy is posted on our website, and any failure by us or our vendor or other business partners to comply with it or with federal, state or international privacy, data protection or security laws or regulations could result in regulatory or litigation-related actions against us, legal liability, fines, damages and other costs. Substantial expenses and operational changes may be required in connection with maintaining compliance with such laws, and in particular certain emerging privacy laws are still subject to a high degree of uncertainty as to their interpretation and application. For example, in May 2018, the General Data Protection Regulation (the “GDPR”) began to fully apply to the processing of personal information collected from individuals located in the European Union. The GDPR has created new compliance obligations and has significantly increased fines for noncompliance. Although we take steps to protect the security of our customers’ personal information, we may be required to expend significant resources to comply with data breach requirements if third parties improperly obtain and use the personal information of our customers or we otherwise experience a data loss with respect to customers’ personal information. A major breach of our network security and systems could have negative consequences for our business and future prospects, including possible fines, penalties and damages, reduced customer demand for our vehicles and harm to our reputation and brand.

We may be compelled to undertake product recalls or take other actions, which could adversely affect our brand image and financial performance.

Any product recall, including for solar or charging equipment, in the future may result in adverse publicity, damage our brand and adversely affect our business, prospects, operating results and financial condition. For example, certain vehicle recalls that we initiated have resulted from various causes, including a component that could prevent the parking brake from releasing once engaged, a concern with the firmware in the restraints control module in certain right-hand-drive vehicles, industry-wide issues with airbags from a particular supplier, Model X seat components that

could cause unintended seat movement during a collision, and concerns of corrosion in Model S power steering assist motor bolts. Furthermore, testing of our vehicles by government regulators or industry groups may require us to initiate vehicle recalls or may result in negative public perceptions about the safety of our vehicles. In the future, we may at various times, voluntarily or involuntarily, initiate a recall if any of our products or our electric vehicle powertrain components that we have provided to other vehicle OEMs, including any systems or parts sourced from our suppliers, prove to be defective or noncompliant with applicable laws and regulations, such as federal motor vehicle safety standards. Such recalls, whether voluntary or involuntary or caused by systems or components engineered or manufactured by us or our suppliers, could involve significant expense and could adversely affect our brand image in our target markets, as well as our business, prospects, financial condition and results of operations.

Our current and future warranty reserves may be insufficient to cover future warranty claims which could adversely affect our financial performance.

Subject to separate limited warranties for the supplemental restraint system, battery and drive unit, we provide four-year or 50,000-mile limited warranties for the purchasers of new Model 3, Model S and Model X vehicles and either a four-year or 50,000-mile limited warranty or a two-year or 100,000-mile maximum odometer limited warranty for the purchasers of used Model S or Model X vehicles certified and sold by us. The limited warranty for the battery and drive unit for new Model S and Model X vehicles covers the drive unit for eight years, as well as the battery for a period of eight years (or for certain older vehicles, 125,000 miles if reached sooner than eight years), although the battery's charging capacity is not covered under any of our warranties or Extended Service plans; the limited warranty for used Model S and Model X vehicles does not extend or otherwise alter the terms of the original battery and drive unit limited warranty for such used vehicles specified in their original New Vehicle Limited Warranty. For the battery and drive unit on our current new Model 3 vehicles, we offer an eight-year or 100,000-mile limited warranty for our standard range battery and an eight-year or 120,000-mile limited warranty for our long-range battery, with minimum 70% retention of battery capacity over the warranty period. In addition, customers of new Model S and Model X vehicles have the opportunity to purchase an Extended Service plan for the period after the end of the limited warranty for their new vehicles to cover additional services for up to an additional four years or 50,000 miles, provided it is purchased within a specified period of time.

For energy storage products, we provide limited warranties against defects and to guarantee minimum energy retention levels. For example, we currently guarantee that each Powerwall 2 product will maintain at least 70-80% of its stated energy capacity after 10 years, and that each Powerpack 2 product will retain specified minimum energy capacities in each of its first 10 to 15 years of use. For our Solar Roof, we currently offer a warranty on the glass tiles for the lifetime of a customer's home and a separate warranty for the energy generation capability of the solar tiles. We also offer extended warranties, availability guarantees and capacity guarantees for periods of up to 20 years at an additional cost at the time of purchase, as well as workmanship warranties to customers who elect to have us install their systems.

Finally, customers who buy energy from us under solar energy system leases or power purchase agreements are covered by warranties equal to the length of the agreement term, which is typically 20 years. Systems purchased for cash are covered by a warranty of up to 10 years, with extended warranties available at additional cost. In addition, we pass through to our customers the inverter and panel manufacturers' warranties, which generally range from 5 to 25 years, subjecting us to the risk that the manufacturers may later cease operations or fail to honor their underlying warranties. Finally, we provide a performance guarantee with our leased solar energy systems that compensates a customer on an annual basis if their system does not meet the electricity production guarantees set forth in their lease.

If our warranty reserves are inadequate to cover future warranty claims on our products, our business, prospects, financial condition and operating results could be materially and adversely affected. Warranty reserves include management's best estimate of the projected costs to repair or to replace items under warranty. These estimates are based on actual claims incurred to-date and an estimate of the nature, frequency and costs of future claims. Such estimates are inherently uncertain and changes to our historical or projected experience, especially with respect to products such as Model 3 and Solar Roof that are new and/or that we expect to produce at significantly greater volumes than our past products, may cause material changes to our warranty reserves in the future.

Our insurance strategy may not be adequate to protect us from all business risks.

We may be subject, in the ordinary course of business, to losses resulting from products liability, accidents, acts of God and other claims against us, for which we may have no insurance coverage. As a general matter, we do not maintain as much insurance coverage as many other companies do, and in some cases, we do not maintain any at all.

Additionally, the policies that we do have may include significant deductibles or self-insured retentions, and we cannot be certain that our insurance coverage will be sufficient to cover all future losses or claims against us. A loss that is uninsured or which exceeds policy limits may require us to pay substantial amounts, which could adversely affect our financial condition and operating results.

Our financial results may vary significantly from period-to-period due to fluctuations in our operating costs and other factors.

We expect our period-to-period financial results to vary based on our operating costs which we anticipate will increase significantly in future periods as we continue to ramp production of Model 3, expand Gigafactory 1, open new Tesla stores and service centers with maintenance and repair capabilities, open new Supercharger locations, ramp production at Gigafactory 2, commence manufacturing operations in China, including by building and commencing operation of Gigafatory 3, increase our sales and marketing activities, and increase our general and administrative functions to support our growing operations. Moreover, we expect to continue to design, develop and manufacture new and future products, and increase our production capacity by expanding our current manufacturing facilities and adding future facilities. Additionally, our revenues from period-to-period may fluctuate as we introduce existing products to new markets for the first time and as we develop and introduce new products. As a result of these factors, we believe that quarter-to-quarter comparisons of our financial results, especially in the short term, are not necessarily meaningful and that these comparisons cannot be relied upon as indicators of future performance. Moreover, our financial results may not meet expectations of equity research analysts, ratings agencies or investors, who may be focused only on quarterly financial results. If any of this occurs, the trading price of our stock could fall substantially, either suddenly or over time.

Servicing our indebtedness requires a significant amount of cash, and there is no guarantee that we will have sufficient cash flow from our business to pay our substantial indebtedness.

As of September 30, 2018, we and our subsidiaries had outstanding $10.90 billion in aggregate principal amount of indebtedness (see Note 10, Convertible and Long-Term Debt Obligations, to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q). Our substantial consolidated indebtedness may increase our vulnerability to any generally adverse economic and industry conditions. We and our subsidiaries may, subject to the limitations in the terms of our existing and future indebtedness, incur additional debt, secure existing or future debt or recapitalize our debt.

Pursuant to their terms, holders of our 0.25% Convertible Senior Notes due 2019, 1.25% Convertible Senior Notes due 2021 and 2.375% Convertible Senior Notes due 2022 (collectively, the “Tesla Convertible Notes”) may convert their respective Tesla Convertible Notes at their option prior to the scheduled maturities of the respective Tesla Convertible Notes under certain circumstances. Upon conversion of the applicable Tesla Convertible Notes, we will be obligated to deliver cash and/or shares in respect of the principal amounts thereof and the conversion value in excess of such principal amounts on such Tesla Convertible Notes. Moreover, our subsidiary’s 2.75% Convertible Senior Notes due 2018, 1.625% Convertible Senior Notes due 2019 and Zero-Coupon Convertible Senior Notes due 2020 (collectively, the “Subsidiary Convertible Notes”) are convertible into shares of our common stock at conversion prices ranging from $300.00 to $759.36 per share. Finally, holders of the Tesla Convertible Notes and the Subsidiary Convertible Notes will have the right to require us to repurchase their notes upon the occurrence of a fundamental change at a purchase price equal to 100% of the principal amount of the notes, plus accrued and unpaid interest, if any, to, but not including, the fundamental change purchase date.

Our ability to make scheduled payments of the principal and interest on our indebtedness when due or to make payments upon conversion or repurchase demands with respect to our convertible notes, or to refinance our indebtedness as we may need or desire, depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to satisfy our obligations under our existing indebtedness, and any future indebtedness we may incur, and to make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as reducing or delaying investments or capital expenditures, selling assets, refinancing or obtaining additional equity capital on terms that may be onerous or highly

dilutive. Our ability to refinance existing or future indebtedness will depend on the capital markets and our financial condition at such time. In addition, our ability to make payments may be limited by law, by regulatory authority or by agreements governing our future indebtedness. We may not be able to engage in any of these activities or engage in these activities on desirable terms or at all, which could result in a default on our existing or future indebtedness and have a material adverse effect on our business, results of operations and financial condition.

Our debt agreements contain covenant restrictions that may limit our ability to operate our business.

The terms of certain of our credit facilities, including our senior secured asset based revolving credit agreement, contain, and any of our other future debt agreements may contain, covenant restrictions that limit our ability to operate our business, including restrictions on our ability to, among other things, incur additional debt or issue guarantees, create liens, repurchase stock or make other restricted payments, and make certain voluntary prepayments of specified debt. In addition, under certain circumstances we are required to comply with a fixed charge coverage ratio. As a result of these covenants, our ability to respond to changes in business and economic conditions and engage in beneficial transactions, including to obtain additional financing as needed, may be restricted. Furthermore, our failure to comply with our debt covenants could result in a default under our debt agreements, which could permit the holders to accelerate our obligation to repay the debt. If any of our debt is accelerated, we may not have sufficient funds available to repay it.

We may need or want to raise additional funds and these funds may not be available to us when we need them. If we cannot raise additional funds when we need or want them, our operations and prospects could be negatively affected.

The design, manufacture, sale, installation and/or servicing of automobiles, energy storage products and solar products is a capital intensive business. Until we are consistently generating positive free cash flows, we may need or want to raise additional funds through the issuance of equity, equity-related or debt securities or through obtaining credit from financial institutions to fund, together with our principal sources of liquidity, the costs of developing and manufacturing our current or future vehicles, energy storage products and/or solar products, to pay any significant unplanned or accelerated expenses or for new significant strategic investments, or to refinance our significant consolidated indebtedness, even if not required to do so by the terms of such indebtedness. We need sufficient capital to fund our ongoing operations, ramp vehicle production, continue research and development projects, establish sales, delivery and service centers, build and deploy Superchargers, expand Gigafactory 1, ramp production at Gigafactory 2, build and begin to operate Gigafactory 3 and to make the investments in tooling and manufacturing capital required to introduce new vehicles, energy storage products and solar products. We cannot be certain that additional funds will be available to us on favorable terms when required, or at all. If we cannot raise additional funds when we need them, our financial condition, results of operations, business and prospects could be materially and adversely affected.

Additionally, we use capital from third-party investors to enable our customers' access to our solar energy systems with little or no upfront cost. The availability of this financing depends upon many factors, including the confidence of the investors in the solar energy industry, the quality and mix of our customer contracts, any regulatory changes impacting the economics of our existing customer contracts, changes in law (including tax law), risks or government incentives associated with these financings, and our ability to compete with other renewable energy companies for the limited number of potential investors. Moreover, while interest rates remain at low levels, they have risen in recent periods. If the rate of return required by investors rises as a result of a rise in interest rates, it will reduce the present value of the customer payment streams underlying, and therefore the total value of, our financing structures, increasing our cost of capital. If we are unable to establish new financing funds on favorable terms for third-party ownership arrangements, we may be unable to finance the installation of our solar energy systems for our lease or power purchase agreement customers' systems, or our cost of capital could increase and our liquidity may be negatively impacted, which would have an adverse effect on our business, financial condition and results of operations.

We could be subject to liability, penalties and other restrictive sanctions and adverse consequences arising out of certain governmental investigations and proceedings.

We are cooperating with certain government investigations as discussed in Part II, Item 1, “Legal Proceedings” in this Quarterly Report on Form 10-Q. Aside from the settlement with the SEC discussed below relating to Mr. Musk’s statement that he was considering taking Tesla private, to our knowledge no government agency in any ongoing investigation has concluded that any wrongdoing occurred. However, we cannot predict the outcome or impact of any ongoing matters, and there exists the possibility that we could be subject to liability, penalties and other restrictive sanctions and adverse consequences if the SEC, the DOJ, or any other government agency were to pursue legal action in the future. Moreover, we expect to incur costs in responding to related requests for information and subpoenas, and if instituted, in defending against any governmental proceedings.

For example, on October 16, 2018, the U.S. District Court for the Southern District of New York entered a final judgment approving the terms of a settlement filed with the Court on September 29, 2018, in connection with the actions taken by the SEC relating to Elon Musk’s statement on August 7, 2018 that he was considering taking Tesla private. We agreed in the settlement to, among other things, pay a civil penalty of $20 million, appoint an independent director as the Chair of the Board for at least three years, appoint two additional independent directors to the Board, and further enhance our disclosure controls and other corporate governance-related matters. Although we intend to comply with the terms and requirements of the settlement, if there is a lack of compliance, additional enforcement actions or other legal proceedings may be instituted against us.

If we update or discontinue the use of our manufacturing equipment more quickly than expected, we may have to shorten the useful lives of any equipment to be retired as a result of any such update, and the resulting acceleration in our depreciation could negatively affect our financial results.

We have invested and expect to continue to invest significantly in what we believe is state of the art tooling, machinery and other manufacturing equipment for our various product lines, and we depreciate the cost of such equipment over their expected useful lives. However, manufacturing technology may evolve rapidly, and we may decide to update our manufacturing process with cutting-edge equipment more quickly than expected. Moreover, because we have limited experience to date with high-volume manufacturing, we are continually implementing learnings as our engineering and manufacturing expertise and efficiency increase, which may result in our ability to manufacture our products using less of our currently installed equipment. Alternatively, as we ramp production of Model 3 to higher levels, our learnings may cause us to discontinue the use of already installed equipment in favor of different or additional equipment. The useful life of any equipment that would be retired early as a result would be shortened, causing the depreciation on such equipment to be accelerated, and our results of operations could be negatively impacted.

We are exposed to fluctuations in currency exchange rates, which could negatively affect our financial results.

Our revenues and costs denominated in foreign currencies are not completely matched. As we have increased vehicle deliveries in markets outside of the U.S., we have much higher revenues than costs denominated in other currencies such as the euro, Norwegian krone, pound sterling and Canadian dollar. Any strengthening of the U.S. dollar would tend to reduce our revenues as measured in U.S. dollars, as we have historically experienced. In addition, a portion of our costs and expenses have been, and we anticipate will continue to be, denominated in foreign currencies, including the Japanese yen. If we do not have fully offsetting revenues in these currencies and if the value of the U.S. dollar depreciates significantly against these currencies, our costs as measured in U.S. dollars as a percent of our revenues will correspondingly increase and our margins will suffer. Moreover, while we undertake limited hedging activities intended to offset the impact of currency translation exposure, it is impossible to predict or eliminate such impact. As a result, our operating results could be adversely affected.

We may face regulatory limitations on our ability to sell vehicles directly which could materially and adversely affect our ability to sell our electric vehicles.

We sell our vehicles directly to consumers. We may not be able to sell our vehicles through this sales model in each state in the U.S., as some states have laws that may be interpreted to impose limitations on this direct-to-consumer sales model. In certain states in which we are not able to obtain dealer licenses, we have opened galleries, which are not full retail locations.

The application of these state laws to our operations continues to be difficult to predict. Laws in some states have limited our ability to obtain dealer licenses from state motor vehicle regulators and may continue to do so.

In addition, decisions by regulators permitting us to sell vehicles may be challenged by dealer associations and others as to whether such decisions comply with applicable state motor vehicle industry laws. We have prevailed in many of these lawsuits and such results have reinforced our continuing belief that state laws were not designed to prevent our distribution model. In some states, there have also been regulatory and legislative efforts by dealer associations to propose laws that, if enacted, would prevent us from obtaining dealer licenses in their states given our current sales model. A few states have passed legislation that clarifies our ability to operate, but at the same time limits the number of dealer licenses we can obtain or stores that we can operate. We have also filed a lawsuit in federal court in Michigan challenging the constitutionality of the state’s prohibition on direct sales as applied to our business.

Internationally, there may be laws in jurisdictions we have not yet entered or laws we are unaware of in jurisdictions we have entered that may restrict our sales or other business practices. Even for those jurisdictions we have analyzed, the laws in this area can be complex, difficult to interpret and may change over time. Continued regulatory limitations and other obstacles interfering with our ability to sell vehicles directly to consumers could have a negative and material impact our business, prospects, financial condition and results of operations.

We may need to defend ourselves against intellectual property infringement claims, which may be time-consuming and could cause us to incur substantial costs.

Others, including our competitors, may hold or obtain patents, copyrights, trademarks or other proprietary rights that could prevent, limit or interfere with our ability to make, use, develop, sell or market our products and services, which could make it more difficult for us to operate our business. From time to time, the holders of such intellectual property rights may assert their rights and urge us to take licenses, and/or may bring suits alleging infringement or misappropriation of such rights. We may consider the entering into licensing agreements with respect to such rights, although no assurance can be given that such licenses can be obtained on acceptable terms or that litigation will not occur, and such licenses could significantly increase our operating expenses. In addition, if we are determined to have infringed upon a third party's intellectual property rights, we may be required to cease making, selling or incorporating certain components or intellectual property into the goods and services we offer, to pay substantial damages and/or license royalties, to redesign our products and services, and/or to establish and maintain alternative branding for our products and services. In the event that we were required to take one or more such actions, our business, prospects, operating results and financial condition could be materially adversely affected. In addition, any litigation or claims, whether or not valid, could result in substantial costs, negative publicity and diversion of resources and management attention.

Tesla is a highly-visible public company whose products, business, results of operations, statements and actions are often scrutinized by critics whose influence could negatively impact the perception of our brand and the market value of our common stock.

Tesla is a highly-visible public company whose products, business, results of operations, statements and actions are well-publicized. Such attention includes frequent criticism of us by a range of third-parties. Our continued success depends on our ability to focus on executing on our mission and business plan while maintaining the trust of our current and potential customers, employees, stockholders and business partners. Any negative perceived actions of ours could influence the perception of our brand or our leadership by our customers, suppliers or investors, which could adversely impact our business prospects, operating results and the market value of our common stock.

Our facilities or operations could be damaged or adversely affected as a result of disasters.

Our corporate headquarters, the Tesla Factory and Gigafactory 1 are located in seismically active regions in Northern California and Nevada. If major disasters such as earthquakes or other events occur, or our information system or communications network breaks down or operates improperly, our headquarters and production facilities may be seriously damaged, or we may have to stop or delay production and shipment of our products. We may incur expenses relating to such damages, which could have a material adverse impact on our business, operating results and financial condition.

Risks Related to the Ownership of Our Common Stock

The trading price of our common stock is likely to continue to be volatile.

The trading price of our common stock has been highly volatile and could continue to be subject to wide fluctuations in response to various factors, some of which are beyond our control. Our common stock has experienced an intra-day trading high of $387.46 per share and a low of $244.59 per share over the last 52 weeks. The stock market in general, and the market for technology companies in particular, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. In particular, a large proportion of our common stock has been and may continue to be traded by short sellers which may put pressure on the supply and demand for our common stock, further influencing volatility in its market price. Public perception and

other factors outside of our control may additionally impact the stock price of companies like us that garner a disproportionate degree of public attention, regardless of actual operating performance. In addition, in the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against these companies. Moreover, stockholder litigation like this has been filed against us in the past. While we are continuing to defend such actions vigorously, any judgment against us or any future stockholder litigation could result in substantial costs and a diversion of our management's attention and resources.

We may fail to meet our publicly announced guidance or other expectations about our business, which could cause our stock price to decline.

We provide guidance regarding our expected financial and business performance, such as projections regarding sales and production, as well as anticipated future revenues, gross margins, profitability and cash flows. Correctly identifying key factors affecting business conditions and predicting future events is inherently an uncertain process and our guidance may not ultimately be accurate. Our guidance is based on certain assumptions such as those relating to anticipated production and sales volumes and average sales prices, supplier and commodity costs, and planned cost reductions. If our guidance is not accurate or varies from actual results due to our inability to meet our assumptions or the impact on our financial performance that could occur as a result of various risks and uncertainties, the market value of our common stock could decline significantly.

Transactions relating to our convertible notes may dilute the ownership interest of existing stockholders, or may otherwise depress the price of our common stock.

The conversion of some or all of the Tesla Convertible Notes or the Subsidiary Convertible Notes would dilute the ownership interests of existing stockholders to the extent we deliver shares upon conversion of any of such notes. Our Subsidiary Convertible Notes have been historically, and the other Tesla Convertible Notes may become in the future, convertible at the option of their holders prior to their scheduled terms under certain circumstances. If holders elect to convert their convertible notes, we could be required to deliver to them a significant number of shares of our common stock. Any sales in the public market of the common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the convertible notes may encourage short selling by market participants because the conversion of such notes could be used to satisfy short positions, or anticipated conversion of such notes into shares of our common stock could depress the price of our common stock.

Moreover, in connection with each issuance of the Tesla Convertible Notes, we entered into convertible note hedge transactions, which are expected to reduce the potential dilution and/or offset potential cash payments we are required to make in excess of the principal amount upon conversion of the applicable Tesla Convertible Notes. We also entered into warrant transactions with the hedge counterparties, which could separately have a dilutive effect on our common stock to the extent that the market price per share of our common stock exceeds the applicable strike price of the warrants on the applicable expiration dates. In addition, the hedge counterparties or their affiliates may enter into various transactions with respect to their hedge positions, which could also cause or prevent an increase or a decrease in the market price of our common stock or the convertible notes.

Elon Musk has pledged shares of our common stock to secure certain bank borrowings. If Mr. Musk were forced to sell these shares pursuant to a margin call that he could not avoid or satisfy, such sales could cause our stock price to decline.

Certain banking institutions have made extensions of credit to Elon Musk, our Chief Executive Officer, a portion of which was used to purchase shares of common stock in certain of our public offerings and private placements at the same prices offered to third party participants in such offerings and placements. We are not a party to these loans, which are partially secured by pledges of a portion of the Tesla common stock currently owned by Mr. Musk. If the price of our common stock were to decline substantially and Mr. Musk were unable to avoid or satisfy a margin call with respect to his pledged shares, Mr. Musk may be forced by one or more of the banking institutions to sell shares of Tesla common stock in order to remain within the margin limitations imposed under the terms of his loans. Any such sales could cause the price of our common stock to decline further.

Anti-takeover provisions contained in our governing documents, applicable laws and our convertible notes could impair a takeover attempt.

Our certificate of incorporation and bylaws afford certain rights and powers to our board of directors that could contribute to the delay or prevention of an acquisition that it deems undesirable. We are also subject to Section 203 of the Delaware General Corporation Law and other provisions of Delaware law that limit the ability of stockholders in certain situations to effect certain business combinations. In addition, the terms of our convertible notes require us to repurchase such notes in the event of a fundamental change, including a takeover of our company. Any of the foregoing provisions and terms that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

In connection with the offering of the 2018 Notes in 2013, we sold warrants to each of Goldman, Sachs & Co. and Morgan Stanley & Co. LLC (the "Warrantholders"). Between September 6, 2018 and September 28, 2018, we issued an aggregate of 105,218 shares of our common stock to the Warrantholders pursuant to their exercise of such warrants, which were net of the applicable exercise prices. Such shares were issued pursuant to an exemption from registration provided by Rule 3(a)(9) of the Securities Act of 1933.

ITEM 3. DEFAULT UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

See Index to Exhibits at the end of this Quarterly Report on Form 10-Q for the information required by this Item.

INDEX TO EXHIBITS

Exhibit Number	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit	Filing Date	Filed Herewith
10.1	Amendment No. 3 to Amended and Restated Loan and Security Agreement, dated as of May 4, 2018, by and among Tesla 2014 Warehouse SPV LLC, Tesla Finance LLC, the Lenders and Group Agents from time to time party thereto, Deutsche Bank AG, New York Branch as Administrative Agent, and Deutsche Bank Trust Company Americas, as Paying Agent.	—	—	—	—	X
10.2	Amendment No. 3 to Loan and Security Agreement, dated as of May 4, 2018, by and among LML Warehouse SPV, LLC, the Lenders and Group Agents from time to time party thereto, and Deutsche Bank AG, New York Branch, as Administrative Agent.	—	—	—	—	X
10.3†	Amendment No. 4 to Amended and Restated Loan and Security Agreement, dated as of August 16, 2018, by and among Tesla 2014 Warehouse SPV LLC, Tesla Finance LLC, the Lenders and Group Agents from time to time party thereto, Deutsche Bank AG, New York Branch as Administrative Agent and Deutsche Bank Trust Company Americas, as Paying Agent.	—	—	—	—	X
10.4†	Amendment No. 4 to Loan and Security Agreement, dated as of August 16, 2018, by and among LML Warehouse SPV, LLC, the Lenders and Group Agents from time to time party thereto, and Deutsche Bank AG, New York Branch, as Administrative Agent.	—	—	—	—	X
31.1	Rule 13a-14(a) / 15(d)-14(a) Certification of Principal Executive Officer	—	—	—	—	X
31.2	Rule 13a-14(a) / 15(d)-14(a) Certification of Principal Financial Officer	—	—	—	—	X
32.1*	Section 1350 Certifications	—	—	—	—	
101.INS	XBRL Instance Document	—	—	—	—	X
101.SCH	XBRL Taxonomy Extension Schema Document	—	—	—	—	X

101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	—	—	—	—	X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	—	—	—	—	X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	—	—	—	—	X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	—	—	—	—	X

* Furnished herewith.
† Confidential treatment has been requested for portions of this exhibit.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Tesla, Inc.

Date: November 1, 2018 /s/ Deepak Ahuja
Deepak Ahuja
Chief Financial Officer
(Principal Financial Officer, Principal Accounting Officer and

Duly Authorized Officer)