Tesla, Inc.
Form 10-Q
August 06, 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 June 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 | (I.R.S. Employer |
| incorporation or organization) | 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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post 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 | (Do not check if a smaller reporting company) | 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 July 27, 2018, there were 170,593,144 shares of the registrant's common stock outstanding.

TESLA, INC.

FORM 10-Q FOR THE QUARTER ENDED JUNE 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)

| | June 30, 2018 | December 31, 2017 |
|---|---|---|
| Assets | | |
| Current assets | | |
| Cash and cash equivalents | $2,236,424 | $3,367,914 |
| Restricted cash | 146,822 | 155,323 |
| Accounts receivable, net | 569,874 | 515,381 |
| Inventory | 3,324,643 | 2,263,537 |
| Prepaid expenses and other current assets | 422,034 | 268,365 |
| Total current assets | 6,699,797 | 6,570,520 |
| Operating lease vehicles, net | 2,282,047 | 4,116,604 |
| Solar energy systems, leased and to be leased, net | 6,340,031 | 6,347,490 |
| Property, plant and equipment, net | 10,969,348 | 10,027,522 |
| Intangible assets, net | 300,406 | 361,502 |
| Goodwill | 64,284 | 60,237 |
| MyPower customer notes receivable, net of current portion | 434,841 | 456,652 |
| Restricted cash, net of current portion | 399,992 | 441,722 |
| Other assets | 419,254 | 273,123 |
| Total assets | $27,910,000 | $28,655,372 |
| Liabilities | | |
| Current liabilities | | |
| Accounts payable | $3,030,493 | $2,390,250 |
| Accrued liabilities and other | 1,814,979 | 1,731,366 |
| Deferred revenue | 576,321 | 1,015,253 |
| Resale value guarantees | 674,255 | 787,333 |
| Customer deposits | 942,129 | 853,919 |
| Current portion of long-term debt and capital leases | 2,020,685 | 796,549 |
| Current portion of promissory notes issued to related parties | 82,500 | 100,000 |
| Total current liabilities | 9,141,362 | 7,674,670 |
| Long-term debt and capital leases, net of current portion | 9,510,696 | 9,415,700 |
| Solar bonds issued to related parties, net of current portion | 100 | 100 |
| Convertible senior notes issued to related parties | 2,594 | 2,519 |
| Deferred revenue, net of current portion | 795,820 | 1,177,799 |
| Resale value guarantees, net of current portion | 584,857 | 2,309,222 |

| | | |
|---|---|---|
| Other long-term liabilities | 2,607,458 | 2,442,970 |
| Total liabilities | 22,642,887 | 23,022,980 |
| Commitments and contingencies (Note 12) | | |
| Redeemable noncontrolling interests in subsidiaries | 539,536 | 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; 170,516 and 168,797 shares issued and outstanding as of June 30, 2018 and December 31, 2017, respectively | 170 | 169 |
| Additional paid-in capital | 9,656,537 | 9,178,024 |
| Accumulated other comprehensive gain | 18,545 | 33,348 |
| Accumulated deficit | (5,768,831 ) | (4,974,299 ) |
| Total stockholders' equity | 3,906,421 | 4,237,242 |
| Noncontrolling interests in subsidiaries | 821,156 | 997,346 |
| Total liabilities and equity | $27,910,000 | $28,655,372 |

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

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Tesla, Inc.

Consolidated Statements of Operations

(in thousands, except per share data)

(unaudited)

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 |
| Revenues | | | | |
| Automotive sales | $3,117,865 | $2,013,852 | $5,679,746 | $4,048,912 |
| Automotive leasing | 239,816 | 272,764 | 413,252 | 527,304 |
| Total automotive revenues | 3,357,681 | 2,286,616 | 6,092,998 | 4,576,216 |
| Energy generation and storage | 374,408 | 286,780 | 784,430 | 500,724 |
| Services and other | 270,142 | 216,161 | 533,554 | 408,887 |
| Total revenues | 4,002,231 | 2,789,557 | 7,410,982 | 5,485,827 |
| Cost of revenues | | | | |
| Automotive sales | 2,529,739 | 1,472,578 | 4,621,136 | 2,969,227 |
| Automotive leasing | 136,915 | 175,433 | 241,411 | 341,459 |
| Total automotive cost of revenues | 2,666,654 | 1,648,011 | 4,862,547 | 3,310,686 |
| Energy generation and storage | 330,273 | 203,762 | 705,636 | 355,535 |
| Services and other | 386,374 | 271,169 | 767,343 | 485,045 |
| Total cost of revenues | 3,383,301 | 2,122,942 | 6,335,526 | 4,151,266 |
| Gross profit | 618,930 | 666,615 | 1,075,456 | 1,334,561 |
| Operating expenses | | | | |
| Research and development | 386,129 | 369,774 | 753,225 | 691,814 |
| Selling, general and administrative | 750,759 | 537,757 | 1,437,163 | 1,141,212 |
| Restructuring and other | 103,434 | — | 103,434 | — |
| Total operating expenses | 1,240,322 | 907,531 | 2,293,822 | 1,833,026 |
| Loss from operations | (621,392) | (240,916) | (1,218,366) | (498,465) |
| Interest income | 5,064 | 4,785 | 10,278 | 7,875 |
| Interest expense | (163,582) | (108,441) | (313,128) | (207,787) |
| Other (expense) income, net | 50,911 | (41,208) | 13,195 | (59,306) |
| Loss before income taxes | (728,999) | (385,780) | (1,508,021) | (757,683) |
| Provision for income taxes | 13,707 | 15,647 | 19,312 | 40,925 |
| Net loss | (742,706) | (401,427) | (1,527,333) | (798,608) |
| Net loss attributable to noncontrolling interests and redeemable noncontrolling interests in subsidiaries | (25,167) | (65,030) | (100,243) | (131,934) |
| Net loss attributable to common stockholders | $(717,539) | $(336,397) | $(1,427,090) | $(666,674) |
| Net loss per share of common stock attributable to common stockholders | | | | |
| Basic | $(4.22) | $(2.04) | $(8.42) | $(4.07) |
| Diluted | $(4.22) | $(2.04) | $(8.42) | $(4.07) |

| | | | | |
|---|---|---|---|---|
| Weighted average shares used in computing net loss per share of common stock | | | | |
| Basic | 169,997 | 165,212 | 169,574 | 163,679 |
| Diluted | 169,997 | 165,212 | 169,574 | 163,679 |

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

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Tesla, Inc.

Consolidated Statements of Comprehensive Loss

(in thousands)

(unaudited)

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 |
| Net loss attributable to common stockholders | $(717,539) | $(336,397) | $(1,427,090) | $(666,674) |
| Unrealized gains (losses) on derivatives: | | | | |
| Reclassification adjustment for net losses into net loss | — | — | — | (5,570) |
| Foreign currency translation adjustment | (64,376) | 31,730 | (14,803) | 40,271 |
| Other comprehensive (loss) income | (64,376) | 31,730 | (14,803) | 34,701 |
| Comprehensive loss | $(781,915) | $(304,667) | $(1,441,893) | $(631,973) |

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

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Tesla, Inc.

Consolidated Statements of Cash Flows

(in thousands)

(unaudited)

| | Six Months Ended June 30, 2018 | 2017 |
|---|---|---|
| Cash Flows from Operating Activities | | |
| Net loss | $(1,527,333) | $(798,608) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | |
| Depreciation, amortization and impairment | 901,488 | 765,773 |
| Stock-based compensation | 338,983 | 219,759 |
| Amortization of debt discounts and issuance costs | 74,419 | 67,405 |
| Inventory write-downs | 46,098 | 71,255 |
| Loss on disposals of fixed assets | 118,850 | 53,572 |
| Foreign currency transaction losses | 6,185 | 29,394 |
| Loss related to SolarCity acquisition | — | 11,571 |
| Non-cash interest and other operating activities | 5,685 | 53,769 |
| Changes in operating assets and liabilities, net of effect of business combinations: | | |
| Accounts receivable | (98,509) | 77,043 |
| Inventories | (1,055,556) | (393,702) |
| Operating lease vehicles | (186,208) | (727,453) |
| Prepaid expenses and other current assets | (95,194) | (113,192) |
| MyPower customer notes receivable and other assets | (59,446) | 26,339 |
| Accounts payable and accrued liabilities | 909,720 | 13,234 |
| Deferred revenue | 107,497 | 208,685 |
| Customer deposits | 42,920 | (71,064) |
| Resale value guarantee | (39,563) | 176,505 |
| Other long-term liabilities | (18,076) | 59,732 |
| Net cash used in operating activities | (528,040) | (269,983) |
| Cash Flows from Investing Activities | | |
| Purchases of property and equipment excluding capital leases, net of sales | (1,265,475) | (1,511,692) |
| Purchases of solar energy systems, leased and to be leased | (140,375) | (418,792) |
| Business combinations, net of cash acquired | (5,604) | (109,147) |
| Net cash used in investing activities | (1,411,454) | (2,039,631) |
| Cash Flows from Financing Activities | | |
| Proceeds from issuances of common stock in public offerings | — | 400,175 |
| Proceeds from issuances of convertible and other debt | 3,043,227 | 2,408,586 |
| Repayments of convertible and other debt | (2,268,716) | (1,412,286) |
| Repayments of borrowings under Solar Bonds issued to related parties | (17,500) | (165,000) |
| Collateralized lease (repayments) borrowings | (200,518) | 335,675 |
| Proceeds from exercises of stock options and other stock issuances | 125,071 | 158,913 |
| Principal payments on capital leases | (48,182) | (36,857) |

| | | |
|---|---|---|
| Common stock and debt issuance costs | (3,671) | (13,688) |
| Purchases of convertible note hedges | — | (204,102) |
| Proceeds from settlement of convertible note hedges | — | 251,850 |
| Proceeds from issuances of warrants | — | 52,883 |
| Payments for settlements of warrants | — | (208,193) |
| Proceeds from investments by noncontrolling interests in subsidiaries | 253,037 | 583,433 |
| Distributions paid to noncontrolling interests in subsidiaries | (109,545) | (123,873) |
| Payments for buy-outs of noncontrolling interests in subsidiaries | (2,921) | — |
| Net cash provided by financing activities | 770,282 | 2,027,516 |
| Effect of exchange rate changes on cash and cash equivalents and restricted cash | (12,509) | 27,936 |
| Net (decrease) increase in cash and cash equivalents and restricted cash | (1,181,721) | (254,162) |
| 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 | $2,783,238 | $3,512,738 |
| Supplemental Non-Cash Investing and Financing Activities | | |
| Acquisitions of property and equipment included in liabilities | $335,048 | $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 June 30, 2018, the consolidated statements of operations and the consolidated statements of comprehensive loss for the three and six months ended June 30, 2018 and 2017 and the consolidated statements of cash flows for the six months ended June 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.

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 gain | 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):

| | June 30, 2018 | | |
|---|---|---|---|
| | As Reported | Balances Without Adoption of New Revenue Standard | Effect of Change Higher / (Lower) |
| Assets | | | |
| Inventory | $3,324,643 | $3,357,531 | $(32,888) |
| Prepaid expenses and other current assets | 422,034 | 364,476 | 57,558 |
| Operating lease vehicles, net | 2,282,047 | 4,228,216 | (1,946,169) |
| Other assets | 419,254 | 352,000 | 67,254 |
| Liabilities | | | |
| Accrued liabilities and other | 1,814,979 | 1,743,824 | 71,155 |
| Deferred revenue | 576,321 | 1,022,041 | (445,720) |
| Resale value guarantees | 674,255 | 1,030,975 | (356,720) |
| Customer deposits | 942,129 | 883,611 | 58,518 |
| Deferred revenue, net of current portion | 795,820 | 1,243,506 | (447,686) |
| Resale value guarantees, net of current portion | 584,857 | 2,061,508 | (1,476,651) |
| Other long-term liabilities | 2,607,458 | 2,496,748 | 110,710 |
| Redeemable noncontrolling interests in subsidiaries | 539,536 | 532,321 | 7,215 |
| Equity | | | |
| Accumulated other comprehensive gain | 18,545 | 18,843 | (298) |
| Accumulated deficit | (5,768,831) | (6,477,890) | 709,059 |
| Noncontrolling interests in subsidiaries | 821,156 | 904,983 | (83,827) |

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 June 30, 2018 | | | Six Months Ended June 30, 2018 | | |
|---|---|---|---|---|---|---|
| | As Reported | Balances Without Adoption of | Effect of Change Higher / (Lower) | As Reported | Balances Without Adoption of | Effect of Change Higher / (Lower) |

| | | New Revenue Standard | | | New Revenue Standard | |
|---|---|---|---|---|---|---|
| Revenues | | | | | | |
| Automotive sales | $3,117,865 | $2,752,249 | $365,616 | $5,679,746 | $5,015,092 | $664,654 |
| Automotive leasing | 239,816 | 429,027 | (189,211) | 413,252 | 767,402 | (354,150) |
| Energy generation and storage | 374,408 | 388,695 | (14,287) | 784,430 | 802,160 | (17,730) |
| Cost of revenues | | | | | | |
| Automotive sales | 2,529,739 | 2,280,012 | 249,727 | 4,621,136 | 4,155,284 | 465,852 |
| Automotive leasing | 136,915 | 278,133 | (141,218) | 241,411 | 503,714 | (262,303) |
| | | | | | | |
| Provision for income taxes | 13,707 | 14,013 | (306) | 19,312 | 20,345 | (1,033) |
| Net loss | (742,706) | (796,621) | 53,915 | (1,527,333) | (1,617,591) | 90,258 |
| Net loss attributable to noncontrolling interests and redeemable noncontrolling interests in subsidiaries | (25,167) | (26,532) | 1,365 | (100,243) | (104,614) | 4,371 |
| Net loss attributable to common stockholders | (717,539) | (770,089) | 52,550 | (1,427,090) | (1,512,977) | 85,887 |
| Foreign currency translation adjustment | (64,376) | (33,307) | (31,069) | (14,803) | 716 | (15,519) |
| Comprehensive loss | (781,915) | (803,396) | 21,481 | (1,441,893) | (1,512,261) | 70,368 |

In accordance with the new revenue standard requirements, the impact of adoption on our consolidated statement of cash flows for the six months ended June 30, 2018 was a decrease in collateralized lease borrowings of $210.3 million, from a net financing cash inflow of $9.8 million to a net financing cash outflow of $200.5 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 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, except for internet connectivity, which is over the four-year period. 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):

| | Six Months Ended June 30, 2018 |
|---|---|
| Deferred revenue on automotive sales with and without resale value guarantee— beginning of period | $ 475,919 |
| Additions | 155,768 |
| Net changes in liability for pre-existing contracts | (4,394) |
| Revenue recognized | (49,440) |
| Deferred revenue on automotive sales with and without resale value guarantee— end of period | $ 577,853 |

Deferred revenue is equivalent to the total transaction price allocated to the performance obligations that are unsatisfied, or partially unsatisfied, as of June 30, 2018. From the deferred revenue balance as of January 1, 2018, revenue recognized during the six months ended June 30, 2018 was $44.5 million. Of the total deferred revenue on automotive sales with and without resale value guarantees, we expect to recognize $231.7 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 June 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 six months ended June 30, 2018, we recognized $94.5 million and $169.3 million, respectively, of leasing revenues, and $51.8 million and $98.7 million, respectively, for the same periods in 2017. As of June 30, 2018 and December 31, 2017, we had deferred $103.1 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 accrete 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 $776.4 million as of June 30, 2018, including $534.9 million within a 12-month period. As of June 30, 2018, we had $915.4 million of such borrowings recorded in resale value guarantees and $148.4 million recorded in deferred revenue liability. For the three and six months ended June 30, 2018, we recognized $84.7 million and $167.2 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 June 30, 2018, $139.3 million of the guarantees were exercisable by customers within the next 12 months. For the three and six months ended June 30, 2018, we recognized $60.6 million and $76.7 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 June 30, 2018 and December 31, 2017, deferred revenue related to such customer payments amounted to $152.3 million and $124.0 million, respectively. Revenue recognized from the deferred revenue balance as of January 1, 2018, was $28.6 million for the six months ended June 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 June 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 $135.7 million. Of this amount, we expect to recognize $38.8 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 June 30, 2018 and December 31, 2017, deferred revenue related to such customer payments amounted to $221.5 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 June 30, 2018 and December 31, 2017, deferred revenue from rebates and incentives amounted to $28.8 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 June 30, 2018 and December 31, 2017.

Revenue by source

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

| | Three Months Ended June 30, 2018 | Six Months Ended June 30, 2018 |
|---|---|---|
| Automotive sales without resale value guarantee | $ 2,698,239 | $ 4,880,753 |
| Automotive sales with resale value guarantee | 365,616 | 664,654 |
| Automotive regulatory credits | 54,010 | 134,339 |
| Energy generation and storage sales | 234,602 | 532,497 |
| Services and other | 270,142 | 533,554 |
| Total revenues from sales and services | 3,622,609 | 6,745,797 |
| Automotive leasing | 239,816 | 413,252 |
| Energy generation and storage leasing | 139,806 | 251,933 |
| Total revenues | $ 4,002,231 | $ 7,410,982 |

Income Taxes

There are transactions that occur during the ordinary course of business for which the ultimate tax determination is uncertain. As of June 30, 2018 and December 31, 2017, the aggregate balances of our gross unrecognized tax benefits were $236.8 million and $198.7 million, respectively, of which $228.3 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. We do not expect this to have an impact on our consolidated financial statements.

Net 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 potentially dilutive shares that were excluded from the computation of diluted net loss per share of common stock attributable to common stockholders, because their effect was anti-dilutive:

Three Months Ended June 30,