UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of report (Date of earliest event reported): October 30, 2019

ALLISON TRANSMISSION HOLDINGS, INC.
(Exact Name of Registrant as Specified in Charter)

Delaware	001-35456	26-0414014
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

One Allison Way, Indianapolis, Indiana	46222
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code (317) 242-5000

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

☐ Written communication pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, $0.01 par value	**ALSN**	**New York Stock Exchange**

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2 of this chapter).

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. ☐

Item 2.02 Results of Operations and Financial Condition.

On October 30, 2019, Allison Transmission Holdings, Inc. ("Allison") published an earnings release reporting its financial results for the three months ended September 30, 2019. A copy of the earnings release is attached as Exhibit 99.1 hereto. Following the publication of the earnings release, Allison will host an earnings call on October 31, 2019 at 8:00 a.m. ET on which its financial results for the three months ended September 30, 2019 will be discussed. The investor presentation materials that will be used for the call are attached as Exhibit 99.2 hereto.

On October 30, 2019, Allison posted the materials attached as Exhibits 99.1 and 99.2 on its web site (www.allisontransmission.com).

As discussed on page 2 of Exhibit 99.2, the investor presentation contains forward-looking statements within the meaning of the federal securities laws. These statements are present expectations, and are subject to the limitations listed therein and in Allison's other Securities and Exchange Commission filings, including that actual events or results may differ materially from those in the forward-looking statements.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit Number	Description
99.1	Earnings release dated October 30, 2019.
99.2	Investor presentation materials dated October 30, 2019.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

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 hereunto duly authorized.

Date: October 30, 2019	Allison Transmission Holdings, Inc.
	By: /s/ Eric C. Scroggins
	Name: Eric C. Scroggins
	Title: Vice President, General Counsel and Secretary

News Release

Allison Transmission Announces Third Quarter 2019 Results

*** Net Sales of $669 million**

*** Net Income of $149 million, 22% of Net Sales**

*** Adjusted EBITDA of $269 million, 40% of Net Sales**

*** Diluted EPS of $1.23**

INDIANAPOLIS, October 30, 2019 – Allison Transmission Holdings Inc. (NYSE: ALSN), the largest global provider of commercial duty fully-automatic transmissions, today reported net sales for the third quarter of $669 million, a 3 percent decrease from the same period in 2018. The decrease in net sales was principally driven by lower demand in the Service Parts, Support Equipment & Other and Global Off-Highway end markets partially offset by higher demand in the North America On-Highway end market.

Net Income for the quarter was $149 million compared to $167 million for the same period in 2018. Adjusted EBITDA, a non-GAAP financial measure, for the quarter was $269 million compared to $295 million for the same period in 2018. Net Cash Provided by Operating Activities for the quarter was $212 million compared to $239 million for the same period in 2018. Adjusted Free Cash Flow, a non-GAAP financial measure, for the quarter was $165 million compared to $216 million for the same period in 2018.

David S. Graziosi, President and Chief Executive Officer of Allison Transmission commented:

"We are pleased to report that Allison's third quarter 2019 results are within the full year guidance ranges provided to the market on July 31st, and our North America On-Highway end market remains on track for a third consecutive record year, led by the ongoing execution of our growth initiatives and recent market share gains in Class 4/5 truck." Graziosi continued, "Allison continues to demonstrate solid operating margins and free cash flow while executing its prudent and well-defined approach to capital structure and allocation. During the third quarter, we settled $46 million of share repurchases, paid a dividend of $0.15 per share and closed the acquisitions of Walker Die Casting and C&R Tool and Engineering. In October, we completed an opportunistic repricing of our $646 million term loan due March 2026."

Third Quarter Net Sales by End Market

End Market	Q3 2019 Net Sales ($M)	Q3 2018 Net Sales ($M)	% Variance
North America On-Highway	**$ 369**	**$ 332**	**11%**
North America Off-Highway	**$ 6**	**$ 12**	**(50%)**
Defense	**$ 40**	**$ 42**	**(5%)**
Outside North America On-Highway	**$ 99**	**$ 96**	**3%**
Outside North America Off-Highway	**$ 24**	**$ 46**	**(48%)**
Service Parts, Support Equipment & Other	**$ 131**	**$ 164**	**(20%)**
Total Net Sales	**$ 669**	**$ 692**	**(3%)**

Third Quarter Highlights

North America On-Highway end market net sales were up 11 percent from the same period in 2018 principally driven by higher demand for Rugged Duty Series and Highway Series models, led by the continued execution of our growth initiatives and market share gains in Class 4/5 truck, and down 7 percent on a sequential basis principally driven by lower demand for Rugged Duty Series and Pupil Transport/Shuttle Series models.

North America Off-Highway end market net sales were down $6 million from the same period in 2018 and down $3 million sequentially, in both cases principally driven by lower demand from hydraulic fracturing applications.

Defense end market net sales were down 5 percent from the same period in 2018 principally driven by lower Wheeled vehicle demand and up 8 percent on a sequential basis principally driven by higher Tracked vehicle demand.

Outside North America On-Highway end market net sales were up 3 percent from the same period in 2018 principally driven by higher demand in Europe and South America partially offset by lower demand in Asia and down 7 percent sequentially principally driven by lower demand in Europe and Asia.

Outside North America Off-Highway end market net sales were down $22 million from the same period in 2018 principally driven by lower demand in the mining and energy sectors and down $16 million on a sequential basis principally driven by lower demand in the energy sector.

Service Parts, Support Equipment & Other end market net sales were down 20 percent from the same period in 2018 and down 11 percent sequentially, in both cases principally driven by lower demand for North America service parts.

Gross profit for the quarter was $348 million, a decrease of 5 percent from $368 million for the same period in 2018. Gross margin for the quarter was 52.0 percent, a decrease of 120 basis points from a gross margin of 53.2 percent for the same period in 2018. The decrease in gross profit from the same period in 2018 was principally driven by lower net sales and higher manufacturing expenses commensurate with increased on-highway volume partially offset by price increases on certain products and favorable material costs.

Selling, general and administrative expenses for the quarter were $85 million, a decrease of $4 million from $89 million for the same period in 2018. The decrease was principally driven by lower 2019 product warranty expense and favorable 2019 product warranty adjustments partially offset by increased commercial activities spending.

Engineering – research and development expenses for the quarter were $39 million, an increase of $6 million from $33 million for the same period in 2018. The increase was principally driven by increased product initiatives spending.

Interest expense for the quarter was $32 million, an increase of $2 million from $30 million for the same period in 2018. The increase was principally driven by higher interest rates related to long-term debt refinancing that extended maturities at fixed interest rates.

Net income for the quarter was $149 million, a decrease of $18 million from $167 million for the same period in 2018. The decrease was principally driven by lower gross profit, increased product initiatives spending and increased interest expense partially offset by lower selling, general and administrative expenses.

Net cash provided by operating activities was $212 million, a decrease of $27 million from $239 million for the same period in 2018. The decrease was principally driven by lower gross profit and increased product initiatives spending partially offset by decreased cash income taxes.

Third Quarter Non-GAAP Financial Measures

Adjusted EBITDA for the quarter was $269 million, a decrease of $26 million from $295 million for the same period in 2018. The decrease in Adjusted EBITDA was principally driven by lower gross profit and increased product initiatives spending partially offset by lower 2019 product warranty expense and favorable 2019 product warranty adjustments.

Adjusted Free Cash Flow for the quarter was $165 million, a decrease of $51 million from $216 million for the same period in 2018. The decrease was principally driven by lower net cash provided by operating activities and increased capital expenditures.

Full Year 2019 Guidance Update

Our updated full year 2019 guidance includes Net Sales in the range of $2,650 to $2,700 million, Net Income in the range of $555 to $575 million, Adjusted EBITDA in the range of $1,035 to $1,065 million, Net Cash Provided by Operating Activities in the range of $745 to $775 million, Adjusted Free Cash Flow in the range of $570 to $610 million and Cash Income Taxes in the range of $95 to $105 million.

Our full year 2019 net sales guidance reflects lower demand in the Service Parts, Support Equipment & Other and North America Off-Highway end markets principally driven by lower demand from hydraulic fracturing applications partially offset by increased demand in the North America On-Highway end market, price increases on certain products and the continued execution of our growth initiatives.

Conference Call and Webcast

The company will host a conference call at 8:00 a.m. ET on Thursday, October 31 to discuss its third quarter 2019 results. The dial-in phone number for the conference call is 1-877-425-9470 and the international dial-in number is 1-201-389-0878. A live webcast of the conference call will also be available online at http://ir.allisontransmission.com.

For those unable to participate on the conference call, a replay will be available from 11:00 a.m. ET on October 31 until 11:59 p.m. ET on November 7. The replay dial-in phone number is 1-844-512-2921 and the international replay dial-in number is 1-412-317-6671. The replay passcode is 13695438.

About Allison Transmission

Allison Transmission (NYSE: ALSN) is the world's largest manufacturer of fully automatic transmissions for medium- and heavy-duty commercial vehicles. Allison transmissions are used in a variety of applications including refuse, construction, fire, distribution, bus, motorhomes, defense and energy. Founded in 1915, the company is headquartered in Indianapolis, Indiana, USA. With a market presence in more than 80 countries, Allison has regional headquarters in the Netherlands, China and Brazil with manufacturing facilities in the U.S., Hungary and India. Allison also has approximately 1,400 independent distributor and dealer locations worldwide. For more information, visit allisontransmission.com.

Forward-Looking Statements

This press release contains forward-looking statements. All statements other than statements of historical fact contained in this press release are forward-looking statements, including all statements regarding future financial results. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expect," "plans," "project," "anticipate," "believe," "estimate," "predict," "intend," "forecast," "could," "potential," "continue" or the negative of these terms or other similar terms or phrases. Forward-looking statements are not guarantees of future performance and involve known and unknown risks. Factors which may cause the actual results to differ materially from those anticipated at the time the forward-looking statements are made include, but are not limited to: risks related to our substantial indebtedness; our participation in markets that are competitive; the highly cyclical industries in which certain of our end users operate; uncertainty in the global regulatory and business environments in which we operate; our ability to prepare for, respond to and successfully achieve our objectives relating to technological and market developments, competitive threats and changing customer needs; the concentration of our net sales in our top five customers and the loss of any one of these; the failure of markets outside North America to increase adoption of fully-automatic transmissions; U.S. and foreign defense spending; general economic and industry conditions; increases in cost, disruption of supply or shortage of raw materials or components used in our products; the discovery of defects in our products, resulting in delays in new model launches, recall campaigns and/or increased warranty costs and reduction in future sales or damage to our brand and reputation; risks associated with our international operations, including increased trade protectionism; labor strikes, work stoppages or similar labor disputes, which could significantly disrupt our operations or those of our principal customers; our intention to pay dividends and repurchase shares of our common stock and other risks and uncertainties associated with our business described in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. Although we believe the expectations reflected in such forward-looking statements are based upon reasonable assumptions, we can give no assurance that the expectations will be attained or that any deviation will not be material. All information is as of the date of this press release, and we undertake no obligation to update any forward-looking statement to conform the statement to actual results or changes in expectations.

Use of Non-GAAP Financial Measures

This press release contains information about Allison's financial results and forward-looking estimates of financial results which are not presented in accordance with accounting principles generally accepted in the United States ("GAAP"). Such non-GAAP financial measures are reconciled to their closest GAAP financial measures at the end of this press release. Non-GAAP financial measures should not be considered in isolation or as a substitute for our reported results prepared in accordance with GAAP and, as calculated, may not be comparable to other similarly titled measures of other companies.

We use Adjusted EBITDA and Adjusted EBITDA as a percent of net sales to measure our operating profitability. We believe that Adjusted EBITDA and Adjusted EBITDA as a percent of net sales provide management, investors and creditors with useful measures of the operational results of our business and increase the period-to-period comparability of our operating profitability and comparability with other companies. Adjusted EBITDA as a percent of net sales is also used in the calculation of management's incentive compensation program. The most directly comparable GAAP measure to Adjusted EBITDA is Net income. The most directly comparable GAAP measure to Adjusted EBITDA as a percent of net sales is Net Income as a percent of net sales. Adjusted EBITDA is calculated as the earnings before interest expense, income tax expense, amortization of intangible assets, depreciation of property, plant and equipment and other adjustments as defined by Allison Transmission, Inc.'s, the Company's wholly-owned subsidiary, Second Amended and Restated Credit Agreement. Adjusted EBITDA as a percent of net sales is calculated as Adjusted EBITDA divided by net sales.

We use Adjusted Free Cash Flow to evaluate the amount of cash generated by our business that, after the capital investment needed to maintain and grow our business and certain mandatory debt service requirements, can be used for the repayment of debt, stockholder distributions and strategic opportunities, including investing in our business. We believe that Adjusted Free Cash Flow enhances the understanding of the cash flows of our business for management, investors and creditors. Adjusted Free Cash Flow is also used in the calculation of management's incentive compensation program. The most directly comparable GAAP measure to Adjusted Free Cash Flow is Net cash provided by operating activities. Adjusted Free Cash Flow is calculated as Net cash provided by operating activities after additions of long-lived assets.

Attachment

- Condensed Consolidated Statements of Operations
- Condensed Consolidated Balance Sheets
- Condensed Consolidated Statements of Cash Flows
- Reconciliation of GAAP to Non-GAAP Financial Measures
- Reconciliation of GAAP to Non-GAAP Financial Measures for Full Year Guidance

Contacts

Raymond Posadas
Director of Investor Relations
ir@allisontransmission.com
(317) 242-3078

Media Relations
media@allisontransmission.com
(317) 242-5000

Allison Transmission Holdings, Inc.
Condensed Consolidated Statements of Operations
(Unaudited, dollars in millions, except per share data)

	Three months ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Net sales	$ 669	$ 692	$ 2,081	$ 2,066
Cost of sales	321	324	985	982
Gross profit	348	368	1,096	1,084
Selling, general and administrative	85	89	262	274
Engineering - research and development	39	33	107	94
Operating income	224	246	727	716
Interest expense, net	(32)	(30)	(101)	(90)
Other income, net	2	2	8	5
Income before income taxes	194	218	634	631
Income tax expense	(45)	(51)	(137)	(139)
Net income	$ 149	$ 167	$ 497	$ 492
Basic earnings per share attributable to common stockholders	$ 1.24	$ 1.28	$ 4.04	$ 3.66
Diluted earnings per share attributable to common stockholders	$ 1.23	$ 1.27	$ 4.01	$ 3.64

Allison Transmission Holdings, Inc.
Condensed Consolidated Balance Sheets
(Unaudited, dollars in millions)

	September 30, 2019	December 31, 2018
ASSETS		
Current Assets		
Cash and cash equivalents	$ 152	$ 231
Accounts receivable, net	329	279
Inventories	209	170
Other current assets	58	45
Total Current Assets	748	725
Property, plant and equipment, net	561	466
Intangible assets, net	1,061	1,066
Goodwill	2,040	1,941
Other non-current assets	61	39
TOTAL ASSETS	$ 4,471	$ 4,237
LIABILITIES		
Current Liabilities		
Accounts payable	$ 185	$ 169
Product warranty liability	25	26
Current portion of long-term debt	6	—
Deferred revenue	35	34
Other current liabilities	226	197
Total Current Liabilities	477	426
Product warranty liability	29	40
Deferred revenue	103	88
Long-term debt	2,513	2,523
Deferred income taxes	380	329
Other non-current liabilities	226	172
TOTAL LIABILITIES	3,728	3,578
TOTAL STOCKHOLDERS’ EQUITY	743	659
TOTAL LIABILITIES & STOCKHOLDERS’ EQUITY	$ 4,471	$ 4,237

Allison Transmission Holdings, Inc.
Condensed Consolidated Statements of Cash Flows
(Unaudited, dollars in millions)

	Three months ended September 30,		Nine months ended September 30,	
	2019	2018	2019	2018
Net cash provided by operating activities	$ 212	$ 239	$ 645	$ 605
Net cash used for investing activities (a) (b)	(146)	(23)	(323)	(52)
Net cash used for financing activities	(65)	(90)	(399)	(529)
Effect of exchange rate changes on cash	(2)	(1)	(2)	(2)
Net (decrease) increase in cash and cash equivalents	(1)	125	(79)	22
Cash and cash equivalents at beginning of period	153	96	231	199
Cash and cash equivalents at end of period	$ 152	$ 221	$ 152	$ 221
Supplemental disclosures:				
Interest paid	$ 10	$ 11	$ 63	$ 68
Income taxes paid	$ 29	$ 34	$ 84	$ 80
(a) Business acquisitions	$ (99)	$ —	$ (232)	$ —
(b) Additions of long-lived assets	$ (47)	$ (23)	$ (91)	$ (52)

Allison Transmission Holdings, Inc.
Reconciliation of GAAP to Non-GAAP Financial Measures
(Unaudited, dollars in millions)

	Three months ended September 30, 2019	Three months ended September 30, 2018	Nine months ended September 30, 2019	Nine months ended September 30, 2018
Net income (GAAP)	$ 149	$ 167	$ 497	$ 492
plus:				
Income tax expense	45	51	137	139
Interest expense, net	32	30	101	90
Amortization of intangible assets	22	22	65	66
Depreciation of property, plant and equipment	20	19	57	58
Stock-based compensation expense (a)	2	3	10	9
UAW Local 933 retirement incentive (b)	(1)	—	(1)	7
Expenses related to long-term debt refinancing (c)	—	—	1	—
Unrealized loss on foreign exchange (d)	—	3	—	6
Adjusted EBITDA (Non-GAAP)	$ 269	$ 295	$ 867	$ 867
Net sales (GAAP)	$ 669	$ 692	$2,081	$2,066
Net income as a percent of net sales (GAAP)	22.3%	24.1%	23.9%	23.8%
Adjusted EBITDA as a percent of net sales (Non-GAAP)	40.2%	42.6%	41.7%	42.0%
Net cash provided by operating activities (GAAP)	$ 212	$ 239	$ 645	$ 605
Deductions to Reconcile to Adjusted Free Cash Flow:				
Additions of long-lived assets	(47)	(23)	(91)	(52)
Adjusted free cash flow (Non-GAAP)	$ 165	$ 216	$ 554	$ 553

(a) Represents stock-based compensation expense (recorded in Cost of sales, Selling, general and administrative, and Engineering – research and development).

(b) Represents a charge (recorded in Cost of sales) related to a retirement incentive program for certain employees represented by the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America (“UAW”) pursuant to the UAW Local 933 collective bargaining agreement effective through November 2023.

(c) Represents expenses (recorded in Other income, net) related to the refinancing of the prior term loan due 2022 and prior revolving credit facility due 2021 (together, the “Prior Senior Secured Credit Facility”) in the first quarter of 2019.

(d) Represents losses (recorded in Other income, net) on intercompany financing transactions related to investments in plant assets for our India facility.

Allison Transmission Holdings, Inc.
Reconciliation of GAAP to Non-GAAP Financial Measures for Full Year Guidance
(Unaudited, dollars in millions)

	Guidance Year Ending December 31, 2019	
	Low	High
Net Income (GAAP)	$ 555	$ 575
plus:		
Income tax expense	158	168
Interest expense, net	135	135
Depreciation and amortization	164	164
Stock-based compensation expense (a)	14	14
Expenses related to long-term debt refinancing (b)	1	1
UAW Local 933 retirement incentive (c)	8	8
Adjusted EBITDA (Non-GAAP)	$ 1,035	$ 1,065
Net Cash Provided by Operating Activities (GAAP)	$ 745	$ 775
Deductions to Reconcile to Adjusted Free Cash Flow:		
Additions of long-lived assets	(175)	(165)
Adjusted Free Cash Flow (Non-GAAP)	$ 570	$ 610

(a) Represents employee stock compensation expense (recorded in Cost of sales, Selling, general and administrative, and Engineering – research and development).
(b) Represents expenses (recorded in Other income (expense), net) related to the refinancing of the Prior Senior Secured Credit Facility.
(c) Represents a charge (recorded in Cost of sales) related to a retirement incentive program for certain employees represented by the UAW pursuant to the UAW Local 933 collective bargaining agreement effective through November 2023.

Exhibit 99.2

Q3 2019 Earnings Release

Published October 30, 2019 (Earnings Conference Call October 31, 2019)

David Graziosi, President & Chief Executive Officer
Fred Bohley, Senior Vice President & Chief Financial Officer

Safe Harbor Statement

The following information contains, or may be deemed to contain, "forward-looking statements" (as defined in the U.S. Private Securities Litigation Reform Act of 1995). The words "believe," "expect," "anticipate," "intend," "estimate" and other expressions that are predictions of or indicate future events and trends and that do not relate to historical matters identify forward-looking statements. You should not place undue reliance on these forward-looking statements. Although forward-looking statements reflect management's good faith beliefs, reliance should not be placed on forward-looking statements because they involve known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements to differ materially from anticipated future results, performance or achievements expressed or implied by such forward-looking statements. Forward-looking statements speak only as of the date the statements are made. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events, changed circumstances or otherwise. These forward-looking statements are subject to numerous risks and uncertainties, including, but not limited to: our participation in markets that are competitive; the highly cyclical industries in which certain of our end users operate; uncertainty in the global regulatory and business environments in which we operate; our ability to prepare for, respond to and successfully achieve our objectives relating to technological and market developments, competitive threats and changing customer needs; the concentration of our net sales in our top five customers and the loss of any one of these; the failure of markets outside North America to increase adoption of fully-automatic transmissions; the success of our research and development efforts, the outcome of which is uncertain; our failure to identify, consummate or effectively integrate acquisitions; U.S. and foreign defense spending; general economic and industry conditions; increases in cost, disruption of supply or shortage of raw materials or components used in our products; the discovery of defects in our products, resulting in delays in new model launches, recall campaigns and/or increased warranty costs and reduction in future sales or damage to our brand and reputation; risks associated with our international operations, including increased trade protectionism; labor strikes, work stoppages or similar labor disputes, which could significantly disrupt our operations or those of our principal customers; risks related to our substantial indebtedness; and our intention to pay dividends and repurchase shares of our common stock.

Allison Transmission cannot assure you that the assumptions made in preparing any of the forward-looking statements will prove accurate or that any long-term financial goals will be realized. All forward-looking statements included in this presentation speak only as of the date made, and Allison Transmission undertakes no obligation to update or revise publicly any such forward-looking statements, whether as a result of new information, future events, or otherwise. In particular, Allison Transmission cautions you not to place undue weight on certain forward-looking statements pertaining to potential growth opportunities, long-term financial goals or the value we currently ascribe to certain tax attributes set forth herein. Actual results may vary significantly from these statements.

Allison Transmission's business is subject to numerous risks and uncertainties, which may cause future results of operations to vary significantly from those presented herein. Important factors that could cause actual results to differ materially are discussed in Allison Transmission's Annual Report on Form 10-K for the year ended December 31, 2018.

Non-GAAP Financial Information

We use Adjusted EBITDA and Adjusted EBITDA as a percent of net sales to measure our operating profitability. We believe that Adjusted EBITDA and Adjusted EBITDA as a percent of net sales provide management, investors and creditors with useful measures of the operational results of our business and increase the period-to-period comparability of our operating profitability and comparability with other companies. Adjusted EBITDA as a percent of net sales is also used in the calculation of management's incentive compensation program. The most directly comparable U.S. generally accepted accounting principles ("GAAP") measure to Adjusted EBITDA and Adjusted EBITDA as a percent of net sales is Net income and Net income as a percent of net sales, respectively. Adjusted EBITDA is calculated as the earnings before interest expense, income tax expense, amortization of intangible assets, depreciation of property, plant and equipment and other adjustments as defined by Allison Transmission, Inc.'s, the Company's wholly-owned subsidiary, Second Amended and Restated Credit Agreement. Adjusted EBITDA as a percent of net sales is calculated as Adjusted EBITDA divided by net sales.

We use Adjusted Free Cash Flow to evaluate the amount of cash generated by our business that, after the capital investment needed to maintain and grow our business and certain mandatory debt service requirements, can be used for repayment of debt, stockholder distributions and strategic opportunities, including investing in our business. We believe that Adjusted Free Cash Flow enhances the understanding of the cash flows of our business for management, investors and creditors. Adjusted Free Cash Flow is also used in the calculation of management's incentive compensation program. The most directly comparable GAAP measure to Adjusted Free Cash Flow is Net cash provided by operating activities. Adjusted Free Cash Flow is calculated as Net cash provided by operating activities after additions of long-lived assets.

Call Agenda

- Q3 2019 Performance
- 2019 Guidance Update

Q3 2019 Performance Summary

($ in millions)	Q3 2019	Q3 2018	% Variance
Net Sales	$669	$692	(3.3%)
Gross Margin %	52.0%	53.2%	(120) bps
Net Income	$149	$167	(10.8%)
Adjusted EBITDA[(1)]	$269	$295	(8.8%)

Commentary

Net Sales: decrease was principally driven by lower demand in the Service Parts, Support Equipment & Other and Global Off-Highway end markets partially offset by higher demand in the North America On-Highway end market.

Gross Margin: decrease was principally driven by lower net sales and higher manufacturing expenses commensurate with increased on-highway volume partially offset by price increases on certain products and favorable material costs.

Net Income: decrease was principally driven by lower gross profit, increased product initiatives spending and increased interest expense partially offset by lower selling, general and administrative expenses.

Adjusted EBITDA: decrease was principally driven by lower gross profit and increased product initiatives spending partially offset by lower 2019 product warranty expense and favorable 2019 product warranty adjustments.

(1) See Appendix for a reconciliation of Adjusted EBITDA.

Q3 2019 Sales Performance

($ in millions)

End Markets	Q3 2019	Q3 2018	% Variance	Commentary
North America On-Hwy	**$369**	**$332**	11.1%	Principally driven by higher demand for Rugged Duty Series and Highway Series models, led by the continued execution of our growth initiatives and market share gains in Class 4/5 truck
North America Off-Hwy	**$6**	**$12**	(50.0%)	Principally driven by lower demand from hydraulic fracturing applications
Defense	**$40**	**$42**	(4.8%)	Principally driven by lower Wheeled vehicle demand
Outside North America On-Hwy	**$99**	**$96**	3.1%	Principally driven by higher demand in Europe and South America partially offset by lower demand in Asia
Outside North America Off-Hwy	**$24**	**$46**	(47.8%)	Principally driven by lower demand in the mining and energy sectors
Service Parts, Support Equipment & Other	**$131**	**$164**	(20.1%)	Principally driven by lower demand for North America service parts
Total	**$669**	**$692**	**(3.3%)**	

Q3 2019 Financial Performance

($ in millions, except per share data)	Q3 2019	Q3 2018	$ Var	% Var	Commentary
Net Sales	$669	$692	($23)	(3.3%)	Decrease was principally driven by lower demand in the Service Parts, Support Equipment & Other and Global Off-Highway end markets partially offset by higher demand in the North America On-Highway end market
Cost of Sales	$321	$324	$3	0.9%	
Gross Profit	$348	$368	($20)	(5.4%)	Decrease was principally driven by lower net sales and higher manufacturing expenses commensurate with increased on-highway volume partially offset by price increases on certain products and favorable material costs
Operating Expenses					
Selling, General and Administrative	$85	$89	$4	4.5%	Decrease was principally driven by lower 2019 product warranty expense and favorable 2019 product warranty adjustments partially offset by increased commercial activities spending
Engineering – Research and Development	$39	$33	($6)	(18.2%)	Increase was principally driven by increased product initiatives spending
Total Operating Expenses	$124	$122	($2)	(1.6%)	
Operating Income	$224	$246	($22)	(8.9%)	
Interest Expense, net	($32)	($30)	($2)	(6.7%)	Increase was principally driven by higher interest rates related to long-term debt refinancing that extended maturities at fixed interest rates
Other Income, net	$2	$2	$0	0%	
Income Before Income Taxes	$194	$218	($24)	(11.0%)	
Income Tax Expense	($45)	($51)	$6	11.8%	Decrease was principally driven by lower income before income taxes
Net Income	$149	$167	($18)	(10.8%)	
Diluted Earnings Per Share	$1.23	$1.27	($0.04)	(3.1%)	Q3 2019: 121M shares; Q3 2018: 131M shares
Adjusted EBITDA[(1)]	$269	$295	($26)	(8.8%)	

(1) See appendix for the reconciliation from Net Income.

Q3 2019 Cash Flow Performance

($ in millions)	Q3 2019	Q3 2018	$ Variance	% Variance	Commentary
Net Cash Provided by Operating Activities	$212	$239	($27)	(11.3%)	Principally driven by lower gross profit and increased product initiatives spending partially offset by decreased cash income taxes
CapEx	$47	$23	$24	104.4%	Principally driven by increased spending related to investments in productivity and replacement programs, and engineering and testing capabilities
Adjusted Free Cash Flow (1)	$165	$216	($51)	(23.6%)	Principally driven by lower net cash provided by operating activities and increased capital expenditures

($ in millions)	Q3 2019	Q3 2018	$ Variance	% Variance	Commentary
Operating Working Capital(2) Percentage of LTM Sales	13.0%	11.4%	N/A	(160) Bps	Principally driven by increased operating working capital associated with the Walker Die Casting acquisition
Cash Paid for Interest	$10	$11	($1)	(9.1%)	Principally driven by intra-year timing of payments
Cash Paid for Income Taxes	$29	$34	($5)	(14.7%)	Principally driven by decreased income before income taxes

(1) See Appendix for a reconciliation of Adjusted Free Cash Flow.
(2) Operating Working Capital = A/R + Inventory – A/P.

2019 Guidance Update

($ in millions)	Guidance	Commentary
Net Sales Change	$2,650 to $2,700	Full Year 2019 Guidance reflects lower demand in the Service Parts, Support Equipment & Other and North America Off-Highway end markets principally driven by lower demand from hydraulic fracturing applications partially offset by increased demand in the North America On-Highway end market, price increases on certain products and the continued execution of our growth initiatives
Net Income	$555 to $575	
Adjusted EBITDA	$1,035 to $1,065	
Net Cash provided by Operating Activities	$745 to $775	
Adjusted Free Cash Flow	$570 to $610	Net Cash Provided by Operating Activities less CapEx
Cash Income Taxes	$95 to $105	

APPENDIX
Non-GAAP Financial Information

Non-GAAP Reconciliations (1 of 3)

Adjusted EBITDA reconciliation

$ in millions, Unaudited	For the year ended December 31,					Three months ended September 30,		Last twelve months ended September 30,
	2014	2015	2016	2017	2018	2018	2019	2019
Net income (GAAP)	**$229**	**$182**	**$215**	**$504**	**$639**	**$167**	**$149**	**$644**
plus:								
Interest expense, net	138	114	101	103	121	30	32	132
Income tax expense	139	107	126	23	166	51	45	164
Technology-related investment expenses	2	—	1	16	3	—	—	3
Public offering expenses	1	—	—	—	—	—	—	—
Impairments	15	81	—	32	4	—	—	4
Environmental remediation	—	14	—	—	—	—	—	—
Amortization of intangible assets	99	97	92	90	87	22	22	86
Depreciation of property, plant and equipment	94	88	84	80	77	19	20	76
Loss on redemptions and repayments of long-term debt	1	1	—	—	—	—	—	—
Stockholder activism expenses	—	—	4	—	—	—	—	—
Dual power inverter module extended coverage	1	(2)	1	(2)	—	—	—	—
UAW Local 933 signing bonus	—	—	—	10	—	—	—	—
UAW Local 933 retirement incentive	—	—	—	—	15	—	(1)	7
Unrealized (gain) loss on commodity hedge contracts	(1)	1	(2)	—	—	—	—	—
Unrealized loss (gain) on foreign exchange	5	1	1	—	3	3	—	(3)
Expenses related to long-term debt refinancing	—	25	12	—	—	—	—	1
Restructuring charges	1	—	—	—	—	—	—	—
Stock-based compensation expense	15	11	9	12	13	3	2	14
Adjusted EBITDA (Non-GAAP)	**$739**	**$720**	**$644**	**$868**	**$1,128**	**$295**	**$269**	**$1,128**
Net Sales (GAAP)	**$2,127**	**$1,986**	**$1,840**	**$2,262**	**$2,713**	**$692**	**$669**	**$2,728**
Net income as a percent of net sales	**10.8%**	**9.2%**	**11.7%**	**22.3%**	**23.6%**	**24.1%**	**22.3%**	**23.6%**
Adjusted EBITDA as a percent of net sales	**34.7%**	**36.2%**	**35.0%**	**38.4%**	**41.6%**	**42.6%**	**40.2%**	**41.3%**

Non-GAAP Reconciliations (2 of 3)

Adjusted Free Cash Flow reconciliation

$ in millions, Unaudited	For the year ended December 31,					Three months ended September 30,		Last twelve months ended September 30,
	2014	2015	2016	2017	2018	2018	2019	2019
Net Cash Provided by Operating Activities (GAAP)	**$573**	**$580**	**$591**	**$658**	**$837**	**$239**	**$212**	**$877**
(Deductions) or Additions:								
Long-lived assets	(64)	(58)	(71)	(91)	(100)	(23)	(47)	(139)
Technology-related license expenses	6	—	—	—	—	—	—	—
Stockholder activism expenses	—	—	4	—	—	—	—	—
Excess tax benefit from stock-based compensation	25	8	6	—	—	—	—	—
Adjusted Free Cash Flow (Non-GAAP)	**$540**	**$530**	**$530**	**$567**	**$737**	**$216**	**$165**	**$738**

Non-GAAP Reconciliations (3 of 3)

Guidance Reconciliation

$ in millions	Guidance Year Ending December 31, 2019 Low	Guidance Year Ending December 31, 2019 High
Net Income (GAAP)	$ 555	$ 575
plus:		
Income tax expense	158	168
Interest expense, net	135	135
Depreciation and amortization	164	164
Stock-based compensation expense	14	14
Expenses related to long-term debt refinancing	1	1
UAW Local 933 retirement incentive	8	8
Adjusted EBITDA (Non-GAAP)	$ 1,035	$ 1,065
Net Cash Provided by Operating Activities (GAAP)	$ 745	$ 775
Deductions to Reconcile to Adjusted Free Cash Flow:		
Additions of long-lived assets	(175)	(165)
Adjusted Free Cash Flow (Non-GAAP)	$ 570	$ 610