U.S. SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 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): March 8, 2022

ADVANCED EMISSIONS SOLUTIONS, INC.

(Name of registrant as specified in its charter)

| | Delaware | 001-37822 | 27-5472457 |
|--------------------------------|--|---|--|
| | (State or other jurisdiction of incorporation) | (Commission File Number) | (I.R.S. Employer Identification Number) |
| | 8051 E. Maplewood Avenue, Suite 210, Greenwood Village, CO | | 80111 |
| | (Address of principal executive offices) | | (Zip Code) |
| | Registrant's telephone | number, including area code | e: (720) 598-3500 |
| | (Former name or fo | Not Applicable ormer address, if changed sir | nce last report) |
| Check the approvisions: | propriate box below if the Form 8-K filing is intended t | o simultaneously satisfy the | filing obligation of the registrant under any of the following |
| | ☐ Written communications pursuant to Rule 425 ur | nder the Securities Act (17 C | EFR 230.425) |
| | ☐ Soliciting material pursuant to Rule 14a-12 unde | r the Exchange Act (17 CFR | 2 240.14a-12) |
| | ☐ Pre-commencement communications pursuant to | Rule 14d-2(b) under the Ex | schange Act (17 CFR 240.14d-2(b)) |
| | ☐ Pre-commencement communications pursuant to | Rule 13e-4(c) under the Ex | change Act (17 CFR 240.13e-4(c)) |
| Securities reg | istered pursuant to Section 12(b) of the Act: | | |
| C | Class ommon stock, par value \$0.001 per share | Trading Symbol ADES | Name of each exchange on which registered Nasdaq Global Market |
| | neck mark whether the registrant is an emerging growth of the Securities Exchange Act of 1934 (§240.12b-2 o | | e 405 of the Securities Act of 1933 (§230.405 of this chapter |
| If an emergin new or revise | g growth company, indicate by check mark if the regist d financial accounting standards provided pursuant to s | trant has elected not to use the Section 13(a) of the Exchang | Emerging growth company he extended transition period for complying with any ge Act. |
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Item 2.02 Results of Operations and Financial Condition.

On March 8, 2022, Advanced Emissions Solutions Inc. ("ADES") issued a press release related to the filing of ADES' Annual Report on Form 10-K for the year ended December 31, 2021, and posted to its website an investor presentation related to ADES' financial results for the year ended December 31, 2021.

A copy of the press release is furnished as Exhibit 99.1 to this report. The information furnished pursuant to this Item 2.02, including the attached exhibit, shall not be deemed "filed" for purposes of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of such section, nor shall such information or exhibit be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

Cautionary Note Regarding Forward-Looking Statements. The press release and investor presentation contain forward-looking statements that involve certain risks and uncertainties that could cause actual results to differ materially from those expressed or implied by these statements. Please refer to the cautionary notes at the end of the press release regarding these forward-looking statements.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No. Description

99.1 <u>Press Release dated March 8, 2022</u>

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

Date: March 8, 2022

Advanced Emissions Solutions, Inc.

Registrant

/s/ Greg Marken

Greg Marken

Chief Executive Officer



Advanced Emissions Solutions Reports Fourth Quarter and Full Year 2021 Results

Full year earnings per share of \$3.27. APT segment delivers record full year revenue

GREENWOOD VILLAGE, Colo., March 8, 2022 (GlobeNewswire) -- Advanced Emissions Solutions, Inc. (NASDAQ: ADES) (the "Company" or "ADES") today filed its Annual Report on Form 10-K and reported financial results for the quarter and year ended December 31, 2021, including information about its equity investments in Tinuum Group, LLC ("Tinuum Group") and Tinuum Services, LLC ("Tinuum Services") (collectively "Tinuum"), of which ADES owns 42.5% and 50%, respectively.

Advanced Purification Technologies ("APT") Highlights

- Fourth quarter revenue totaled \$23.3 million compared to \$16.3 million in the prior year. Full year revenue totaled \$85.9 million compared to \$53.9 million in 2020.
- Fourth quarter APT Segment operating income was \$0.8 million compared to \$0.7 million in the prior year. Full year APT Segment operating income totaled \$5.6 million in 2021 compared to an operating loss of \$40.0 million in 2020.
- Fourth quarter APT Segment Adjusted EBITDA totaled \$1.9 million compared to \$2.3 million in the prior year. Full year APT Segment Adjusted EBITDA totaled \$8.6 million in 2021 compared to an Adjusted EBITDA loss of \$6.6 million in 2020.
- The APT segment experienced record revenue and production for the full year 2021.

Tinuum & Refined Coal ("RC") Highlights

- Tinuum's fourth quarter distributions to ADES totaled \$7.3 million compared to \$20.2 million in the prior year. Full year distributions totaled \$74.0 million compared to \$62.4 million in 2020.
- Royalty earnings from Tinuum Group in the fourth quarter were \$2.5 million compared to \$3.5 million in the prior year. Full year royalty earnings totaled \$14.4 million compared to \$13.4 million in 2020.
- Fourth quarter RC Segment operating income was \$9.1 million compared to \$8.2 million in the prior year. Full year RC Segment operating income totaled \$82.6 million compared to \$42.7 million in 2020.
- Fourth quarter RC Segment Adjusted EBITDA was \$9.6 million compared to \$23.5 million in the prior year. Full year RC Segment Adjusted EBITDA was \$87.9 million compared to \$74.6 million in 2020.
- After-tax net RC cash flows to ADES are projected to approximate \$4.0 million to \$5.0 million during the first half of 2022 as Tinuum winds down its operations.

ADES Consolidated Highlights

- Fourth quarter consolidated revenue was \$25.8 million compared to \$19.7 million in the prior year. Full year consolidated revenue was \$100.3 million compared to \$67.4 million in 2020.
- Fourth quarter consolidated net income was \$5.8 million compared to \$0.4 million in the prior year. Full year consolidated net income was \$60.4 million compared to a net loss of \$20.3 million in 2020.
- Fourth quarter consolidated Adjusted EBITDA was \$9.1 million compared to \$23.4 million in the prior year. Full year consolidated Adjusted EBITDA was \$84.9 million compared to \$55.1 million in 2020.

- As of December 31, 2021, cash balances, including restricted cash, totaled \$88.8 million, an increase of \$52.8 million compared to the prior year. The Company's only debts outstanding are finance lease obligations.
- In May 2021, the Company initiated a strategic review to assess a range of strategic alternatives to maximize shareholder value. There is no assurance that the review process will result in pursuing or completing any action or transaction, and no timetable has been set for completion of this process. The Company has been encouraged by continued progress and will provide an update as appropriate.

"The strong demand environment for our APT segment persisted through the end of the year and drove a 45% increase in segment revenue in the fourth quarter compared to the prior year," said Greg Marken, CEO of ADES. "Continued high prices for alternative energy sources such as natural gas, coupled with the cold winter months, along with fully implementing the Cabot Supply Agreement, are supporting strong performance for the APT segment and delivering better gross margin leverage compared to 2020. With capacity utilization high, we continue to source inventory from third parties to meet rising customer demand and expect inventory tightness and general supply-chain constraints to remain in the near-term and to continue to weigh on our margin profile. We are working to offset margin pressures through methodical adjustments in pricing, as contracts become eligible for repricing, and we have been successful at better aligning new contract terms to current market conditions. Looking ahead to 2022, we expect volumes and our plant utilization to remain elevated, though we anticipate some gross margin compression due to elevated levels of third party purchases and rising input costs. More broadly, we remain focused on diversifying our end market mix and advancing our technologies alongside partners like Cascade Environmental for the soil and groundwater remediation market."

Marken concluded, "We are also updating our forecast for the expected after-tax net RC cash flows and wind down of Tinuum. Net of collections during the fourth quarter, we now expect between \$4.0 million and \$5.0 million of cash flows from Tinuum to ADES during the first half of 2022. Lastly, we continue to undertake our previously announced strategic review and remain focused on fulfilling our customer commitments and running the business efficiently as this process progresses."

Fourth Quarter & Full Year 2021 Results

Fourth quarter revenues and costs of revenues were \$25.8 million and \$16.9 million, respectively, compared with \$19.7 million and \$12.1 million for the fourth quarter of 2020. Full year revenues and costs of revenues were \$100.3 million and \$65.6 million, respectively, compared with \$67.4 million and \$50.4 million in 2020. The increase in revenue was primarily the result of higher sales of consumables.

Fourth quarter royalty earnings from Tinuum Group were \$2.5 million compared to \$3.5 million in the prior year. The decline in the fourth quarter was the result of fewer invested, royalty-bearing facilities compared to the prior year, as facilities were beginning to cease producing refined coal in the fourth quarter. Full year royalty earnings totaled \$14.4 million compared to \$13.4 million in 2020. The increase was primarily the result of a greater number of invested, royalty-bearing facilities for the majority of the year compared to the prior year. Royalty income is based upon a percentage of the per-ton, pre-tax margin, inclusive of impacts related to depreciation expense and other allocable expenses.

Fourth quarter other operating expenses were \$8.1 million compared to \$6.1 million for the fourth quarter of 2020. The increase was primarily the result of higher payroll and benefit costs, as well as higher legal and professional fees. Full year other operating expenses were \$29.9 million compared to \$57.9 million in 2020. The decrease was primarily driven by an impairment charge of \$26.1 million that was recognized during the second quarter of 2020 as well as a decrease in general and administrative expenses.

Fourth quarter earnings from equity method investments were \$6.8 million compared to \$5.0 million for the fourth quarter of 2020. Full year earnings from equity method investments were \$68.7 million, compared to \$31.0 million in 2020. The increase in earnings from equity method investments is first attributable to distributions recorded into earnings as a result of distributions from Tinuum Group being in excess of the carrying value of the investment, and, therefore, excess distributions are recognized as equity method earnings in the period in which the distributions occur. Tinuum Group also had an increased number of RC facilities for the majority of 2021 due to the three new RC facilities added during 2020.

Fourth quarter interest expense was \$0.1 million, compared to \$0.9 million in the fourth quarter of 2020. Full year interest expense was \$1.5 million, compared to \$3.9 million in 2020. The decrease in interest expense was primarily driven by the full repayment, during the second quarter of 2021, of amounts outstanding on the term loan used to fund the Carbon Solutions acquisition.

Fourth quarter income tax expense was \$1.7 million, compared to an income tax expense of \$5.2 million for the fourth quarter of 2020. Full year tax expense was \$15.7 million, compared to \$6.5 million of income tax expense in 2020. The change in income tax expense was largely driven by increased sales and related higher margins, increased equity earnings and lower interest expense, which were partially offset by higher operating expenses.

Fourth quarter net income was \$5.8 million, compared to \$0.4 million for the fourth quarter of 2020. The increase was driven by higher pre-tax income and a higher income tax expense in 2020. Full year net income was \$60.4 million, compared to net loss of \$20.3 million in 2020. The net loss in prior year was driven by an impairment charge of \$26.1 million recognized during the second quarter of 2020.

Fourth quarter consolidated adjusted EBITDA was \$9.1 million compared to \$23.4 million in 2020. Full year consolidated Adjusted EBITDA was \$84.9 million compared to \$55.1 million in 2020. The increase in adjusted EBITDA for the full year was largely driven by higher consumables revenue and higher equity earnings compared to 2020. See note below regarding the use of the Non-GAAP financial measure Adjusted EBITDA and a reconciliation to the most comparable GAAP financial measure.

Conference Call and Webcast Information

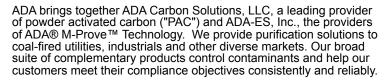
The Company has scheduled a conference call to begin at 9:00 a.m. Eastern Time on Wednesday, March 9, 2022. The conference call webcast information will be available via the Investor Resources section of ADES's website at www.advancedemissionssolutions.com. Interested parties may also participate in the call by registering at https://events.q4inc.com/attendee/852428952. A supplemental investor presentation will be available on the Company's Investor Resources section of the website prior to the start of the conference call. As part of the conference call, ADES will conduct a question-and-answer session. Investors are invited to email their questions in advance to ADES@alpha-ir.com.

About Advanced Emissions Solutions, Inc.

Advanced Emissions Solutions, Inc. serves as the holding entity for a family of companies that provide emissions solutions to customers in the power generation and other industries.







CarbPure Technologies LLC, ("CarbPure"), formed in 2015 provides high-quality PAC and granular activated carbon ideally suited for treatment of potable water and wastewater. Our affiliate company, ADA Carbon Solutions, LLC manufactures the products for CarbPure.



Tinuum Group, LLC ("Tinuum Group") is a 42.5% owned joint venture by ADA that provides patented Refined Coal ("RC") technologies to enhance combustion of and reduce emissions of NOx and mercury from coal-fired power plants.

Caution on Forward-Looking Statements

This press release contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, which provides a "safe harbor" for such statements in certain circumstances. The forward-looking statements include projection on future after-tax, net RC cash flows and results from the Company's review of strategic alternatives, among other matters. These forward-looking statements involve risks and uncertainties. Actual events or results could differ materially from those discussed in the forward-looking statements as a result of various factors including, but not limited to, opportunities for additional sales of our lignite activated carbon products and end-market diversification, the outcome of the review of strategic alternatives, our ability to meet customer supply requirements, the rate of coal-fired power generation in the United States, timing of new and pending regulations and any legal challenges to or extensions of compliance dates of them; the US government's failure to promulgate regulations that benefit our business; changes in laws and regulations, IRS interpretations or guidance, accounting rules, any pending court decisions, prices, economic conditions and market demand; impact of competition; availability, cost of and demand for alternative energy sources and other technologies; technical, start up and operational difficulties; competition within the industries in which we operate; loss of key personnel; ongoing effects of the COVID-19 pandemic and associated economic downturn on our operations and prospects; as well as other factors relating to our business, as described in our filings with the SEC, with particular emphasis on the risk factor disclosures contained in those filings. You are cautioned not to place undue reliance on the forward-looking statements and to consult filings we have made and will make with the SEC for additional discussion concerning risks and uncertainties that may apply to our business and the ownership of our securities. In addition to

Source: Advanced Emissions Solutions, Inc.

Investor Contact:

Alpha IR Group Chris Hodges or Ryan Coleman 312-445-2870 ADES@alpha-ir.com

Advanced Emissions Solutions, Inc. and Subsidiaries Consolidated Balance Sheets

As of December 31, 2021 (in thousands, except share data) 2020 **ASSETS** Current assets: Cash, cash equivalents and restricted cast \$ 78,753 \$ 30.932 13,125 Receivables, net 12,622 Receivables, related party 2,481 3,453 Inventories, net 7,850 9,882 4,597 Prepaid expenses and other current assets 6,661 108.367 61.989 Total current assets 10,027 5,000 Restricted cash, long-term Property, plant and equipment, net of accumulated depreciation of \$7,684 and \$3,340, respectively 29,433 30,171 Intangible assets, net 1,237 1,964 Equity method investments 2,391 7,692 10,604 Deferred tax assets, net 33,243 29,989 Other long-term assets, net 185,436 146,671 \$ LIABILITIES AND STOCKHOLDERS' EQUITY Current liabilities: Accounts payable \$ 10,009 \$ 7,849 Accrued payroll and related liabilities 6,477 3,257 Current portion of long-term debt 1,011 18,441 Other current liabilities 5,124 12,996 Total current liabilities 22,621 42,543 Long-term debt, net of current portion 3,152 5,445 12,362 13,473 Other long-term liabilities 38,135 61,461 **Total Liabilities** Commitments and contingencies (Note 14) Stockholders' equity: Preferred stock: par value of \$.001 per share, 50,000,000 shares authorized, none outstanding Common stock: par value of \$.001 per share, 100,000,000 shares authorized, 23,460,212 and 23,141,284 shares issued and 18,842,066 and 18,523,138 shares outstanding at December 31, 2021 23 23 and 2020, respectively Treasury stock, at cost: 4,618,146 and 4,618,146 shares as of December 31, 2021 and 2020, respectively (47,692)(47,692)Additional paid-in capital 102,106 100,425 Retained earnings 92,864 32,454 Total stockholders' equity 147,301 85,210 185,436 146,671 Total Liabilities and Stockholders' equity

Advanced Emissions Solutions, Inc. and Subsidiaries Consolidated Statements of Operations

| Consolidated Statements of Operations | • | Years Ended December 31, | | | | | | |
|--|----|--------------------------|------|----------|--|--|--|--|
| (in thousands, except per share data) | | 2021 | 2020 | | | | | |
| Revenues: | | | | | | | | |
| Consumables | \$ | 85,882 | \$ | 53,908 | | | | |
| License royalties, related party | | 14,368 | | 13,440 | | | | |
| Other | | 44 | | 15 | | | | |
| Total revenues | | 100,294 | | 67,363 | | | | |
| Operating expenses: | | | | | | | | |
| Consumables cost of revenues, exclusive of depreciation and amortization | | 65,576 | | 50,962 | | | | |
| Other cost of revenues, exclusive of depreciation and amortization | | _ | | (563) | | | | |
| Payroll and benefits | | 11,315 | | 10,621 | | | | |
| Legal and professional fees | | 6,260 | | 5,585 | | | | |
| General and administrative | | 7,060 | | 8,228 | | | | |
| Depreciation, amortization, depletion and accretion | | 7,933 | | 8,537 | | | | |
| Gain on change in estimate, asset retirement obligation | | (2,702) | | _ | | | | |
| Impairment of long-lived assets | | _ | | 26,103 | | | | |
| Gain on settlement | | _ | | (1,129) | | | | |
| Total operating expenses | | 95,442 | | 108,344 | | | | |
| Operating income (loss) | | 4,852 | | (40,981) | | | | |
| Other income (expense): | | | | | | | | |
| Earnings from equity method investments | | 68,726 | | 30,978 | | | | |
| Gain on extinguishment of debt | | 3,345 | | _ | | | | |
| Interest expense | | (1,490) | | (3,920) | | | | |
| Other | | 640 | | 132 | | | | |
| Total other income | | 71,221 | | 27,190 | | | | |
| Income (loss) before income tax expense | | 76,073 | | (13,791) | | | | |
| Income tax expense | | 15,672 | | 6,511 | | | | |
| Net income (loss) | \$ | 60,401 | \$ | (20,302) | | | | |
| Earnings (loss) per common share (Note 1): | | | | | | | | |
| Basic | \$ | 3.31 | \$ | (1.12) | | | | |
| Diluted | \$ | 3.27 | \$ | (1.12) | | | | |
| Weighted-average number of common shares outstanding: | | | | , | | | | |
| Basic | | 18,258 | | 18,044 | | | | |
| Diluted | | 18,461 | | 18,044 | | | | |
| Cash dividends declared per common share outstanding: | \$ | _ | \$ | 0.25 | | | | |
| | | | | | | | | |

Advanced Emissions Solutions, Inc. and Subsidiaries Consolidated Statements of Cash Flows

| Consolidated Statements of Cash Flows | | Years Ended December 31, | | | | |
|--|----|--------------------------|----|----------|--|--|
| (in thousands) | | 2021 | | 2020 | | |
| Cash flows from operating activities | | | | | | |
| Net income (loss) | \$ | 60,401 | \$ | (20,302) | | |
| Adjustments to reconcile net income (loss) to net cash provided by operating activities: | | | | | | |
| Deferred income tax expense | | 10,604 | | 3,491 | | |
| Depreciation, amortization, depletion and accretion | | 7,933 | | 8,537 | | |
| Amortization of debt discount and debt issuance costs | | 945 | | 1,418 | | |
| Operating lease expense | | 2,038 | | 3,559 | | |
| Gain on extinguishment of debt | | (3,345) | | _ | | |
| Gain on change in estimate, asset retirement obligation | | (2,702) | | _ | | |
| Impairment of long-lived assets | | _ | | 26,103 | | |
| Gain on settlement | | _ | | (1,129) | | |
| Recovery of accounts receivable and other receivables | | (36) | | (990) | | |
| Stock-based compensation expense | | 1,927 | | 2,496 | | |
| Earnings from equity method investments | | (68,726) | | (30,978) | | |
| Other non-cash items, net | | (173) | | 192 | | |
| Changes in operating assets and liabilities, net of effects of acquired businesses: | | | | | | |
| Receivables, net | | 540 | | (2,541) | | |
| Related party receivables | | 972 | | 794 | | |
| Prepaid expenses and other current assets | | (2,064) | | 3,234 | | |
| Inventories, net | | 1,394 | | 4,748 | | |
| Other long-term assets, net | | 1,838 | | (1,005) | | |
| Accounts payable | | 1,977 | | (196) | | |
| Accrued payroll and related liabilities | | 3,220 | | 233 | | |
| Other current liabilities | | (8,279) | | (520) | | |
| Operating lease liabilities | | (2,764) | | (2,200) | | |
| Other long-term liabilities | | (2,645) | | (3,337) | | |
| Distributions from equity method investees, return on investment | | 22,944 | | 62,441 | | |
| Net cash provided by operating activities | \$ | 25,999 | \$ | 54,048 | | |
| Cash flows from investing activities | | | | | | |
| Distributions from equity method investees in excess of cumulative earnings | | 51,082 | | _ | | |
| Acquisition of property, equipment and intangible assets, net | | (6,201) | | (6,685) | | |
| Mine development costs | | (1,398) | | (781) | | |
| Proceeds from sale of property and equipment | | 895 | _ | _ | | |
| Net cash provided by (used in) investing activities | | 44,378 | | (7,466) | | |
| Cash flows from financing activities | | | | | | |
| Principal payments on term loan | | (16,000) | | (24,000) | | |
| Principal payments on finance lease obligations | | (1,190) | | (1,360) | | |
| Dividends paid | | (93) | | (4,979) | | |
| Borrowings from Paycheck Protection Program Loan | | _ | | 3,305 | | |
| Repurchase of shares to satisfy tax withholdings | | (246) | | (537) | | |
| Repurchase of common shares | | _ | | (159) | | |
| Net cash used in financing activities | | (17,529) | | (27,730) | | |
| Increase in Cash, Cash Equivalents and Restricted Cash | | 52,848 | | 18,852 | | |
| Cash, Cash Equivalents and Restricted Cash, beginning of year | | 35,932 | | 17,080 | | |
| Cash, Cash Equivalents and Restricted Cash, end of year | \$ | 88,780 | \$ | 35,932 | | |

| | | Years Ended December 31, | | | | | |
|---|----|--------------------------|----|-------|--|--|--|
| (in thousands) | | 2021 | | 2020 | | | |
| Supplemental disclosure of cash flow information: | | | | | | | |
| Cash paid for interest | \$ | 524 | \$ | 2,489 | | | |
| Cash paid (received) for income taxes | \$ | 8,882 | \$ | (84) | | | |
| Supplemental disclosure of non-cash investing and financing activities: | | | | | | | |
| Change in accrued purchases for property and equipment | \$ | 183 | \$ | _ | | | |
| Change in asset retirement obligation | \$ | 121 | \$ | 421 | | | |
| Acquisition of property and equipment under finance lease | \$ | _ | \$ | 158 | | | |
| Dividends payable | \$ | _ | \$ | 32 | | | |

Note on Non-GAAP Financial Measures

To supplement our financial information presented in accordance with GAAP, we are providing non-GAAP measures of certain financial performance. These non-GAAP measures include Consolidated EBITDA, Consolidated Adjusted EBITDA, RC Segment EBITDA, RC Segment Adjusted EBITDA, APT Segment EBITDA and APT Segment Adjusted EBITDA. We have included non-GAAP measures because management believes that they help to facilitate period to period comparisons of our operating results. We believe the non-GAAP measures provide useful information to both management and users of the financial statements by excluding certain expenses, gains and losses that may not be indicative of core operating results and business outlook. Management uses these non-GAAP measures in evaluating the performance of our business.

These non-GAAP measures are not in accordance with, or an alternative to, measures prepared in accordance with GAAP and may be different from non-GAAP measures used by other companies. In addition, these non-GAAP measures are not based on any comprehensive set of accounting rules or principles. These measures should only be used to evaluate our results of operations in conjunction with the corresponding GAAP measures.

We define Consolidated EBITDA as net income adjusted for the impact of the following items that are either non-cash or that we do not consider representative of our ongoing operating performance: depreciation, amortization, depletion, accretion, amortization of upfront customer consideration that was recorded as a component of the Marshall Mine Acquisition ("Upfront Customer Consideration"), interest expense, net and income tax expense. We define Consolidated Adjusted EBITDA as Consolidated EBITDA, reduced by the non-cash impacts of equity earnings from equity method investments, gain on change in estimate of asset retirement obligations, gain on extinguishment of debt and gain on customer settlement, and increased by cash distributions from equity method investments and impairment of long-lived assets. Because Consolidated Adjusted EBITDA omits certain non-cash items, we believe that the measure is less susceptible to variances that affect our operating performance.

We define APT Segment EBITDA (loss) as APT Segment operating income (loss) adjusted for the impact of the following items that are either non-cash or that we do not consider representative of our ongoing operating performance: depreciation, amortization, depletion, accretion, amortization of Upfront Customer Consideration and interest expense, net. We define APT Segment Adjusted EBITDA (loss) as APT Segment EBITDA (loss) reduced by gain on extinguishment of debt, gain on change in estimate of asset retirement obligation, gain on customer settlement and increased by impairment of long-lived assets.

We define RC Segment EBITDA as RC Segment operating income adjusted for the impact of the following items that are either non-cash or that we do not consider representative of our ongoing operating performance: depreciation, amortization, depletion, accretion and interest expense. We define RC Segment Adjusted EBITDA as RC Segment EBITDA reduced by the non-cash impact of equity earnings from equity method investments and gain on extinguishment of debt and increased by cash distributions from equity method investments.

When used in conjunction with GAAP financial measures, we believe these non-GAAP measures are supplemental measures of operating performance that explain our operating performance for our period to period comparisons and against our competitors' performance. Generally, we believe these non-GAAP measures are less susceptible to variances that affect our operating performance results.

With the exception of extinguishment of debt, gain on change in estimate, asset retirement obligation, impairment on long-lived assets and gain on settlement, the adjustments to Consolidated Adjusted EBITDA and APT Segment Adjusted EBITDA in future periods are generally expected to be similar. These non-GAAP measures have limitations as analytical tools and should not be considered in isolation or as a substitute for analyzing our results as reported under GAAP.

Advanced Emissions Solutions, Inc. and Subsidiaries Consolidated Adjusted EBITDA Reconciliation to Net Income (Loss) (Amounts in thousands)

| | Three Months Ended December 31, | | | | | Year ended December 31, | | | |
|---|---------------------------------|---------|----|---------|------|-------------------------|------|----------|--|
| (in thousands) | | 2021 | | 2020 | 2021 | | 2020 | | |
| Net income (loss) | \$ | 5,821 | \$ | 430 | \$ | 60,401 | \$ | (20,302) | |
| Depreciation, amortization, depletion and accretion | | 1,778 | | 2,730 | | 7,933 | | 8,537 | |
| Amortization of Upfront Customer Consideration | | 127 | | 158 | | 508 | | 158 | |
| Interest expense, net | | (24) | | 819 | | 1,164 | | 3,793 | |
| Income tax expense | | 1,659 | | 5,196 | | 15,672 | | 6,511 | |
| Consolidated EBITDA (loss) | | 9,361 | | 9,333 | | 85,678 | | (1,303) | |
| Cash distributions from equity method investees | | 7,275 | | 20,213 | | 74,026 | | 62,441 | |
| Equity earnings | | (6,782) | | (5,019) | | (68,726) | | (30,978) | |
| Gain on extinguishment of debt | | _ | | _ | | (3,345) | | _ | |
| Gain on change in estimate, asset retirement obligation | | (760) | | _ | | (2,702) | | _ | |
| Impairment | | _ | | _ | | _ | | 26,103 | |
| Gain on settlement | | _ | | (1,129) | | _ | | (1,129) | |
| Consolidated Adjusted EBITDA | \$ | 9,094 | \$ | 23,398 | \$ | 84,931 | \$ | 55,134 | |

TABLE 5

Advanced Emissions Solutions, Inc. and Subsidiaries RC Segment Adjusted EBITDA Reconciliation to Segment Operating Income (Amounts in thousands)

| | T | hree Months En | | Year ended December 31, | | | | |
|---|----|----------------|----|-------------------------|----|----------|------|----------|
| (in thousands) | | 2020 | | 2021 | | | 2020 | |
| RC Segment operating income | \$ | 9,117 | \$ | 8,235 | \$ | 82,634 | \$ | 42,689 |
| Depreciation, amortization, depletion and accretion | | (1) | | 32 | | 40 | | 116 |
| Interest expense | | 1 | | 77 | | 12 | | 331 |
| RC Segment EBITDA | · | 9,117 | | 8,344 | | 82,686 | | 43,136 |
| Cash distributions from equity method investees | | 7,275 | | 20,213 | | 74,026 | | 62,441 |
| Equity earnings | | (6,782) | | (5,019) | | (68,726) | | (30,978) |
| Gain on extinguishment of debt | | _ | | _ | | (97) | | _ |
| RC Segment Adjusted EBITDA | \$ | 9,610 | \$ | 23,538 | \$ | 87,889 | \$ | 74,599 |
| 3 | | | | | | | | |

Advanced Emissions Solutions, Inc. and Subsidiaries APT Segment Adjusted EBITDA Reconciliation to Segment Operating Income (Loss) (Amounts in thousands)

| | Three Months Ended December 31, | | | | | Year ended December 31, | | | |
|---|---------------------------------|-------|----|---------|----|-------------------------|----|----------|--|
| (in thousands) | | 2021 | | 2020 | | 2021 | | 2020 | |
| APT Segment operating income (loss) | \$ | 785 | \$ | 691 | \$ | 5,649 | \$ | (39,958) | |
| Depreciation, amortization, depletion and accretion | | 1,682 | | 2,484 | | 7,388 | | 7,870 | |
| Amortization of Upfront Customer Consideration | | 127 | | 158 | | 508 | | 158 | |
| Interest expense, net | | 64 | | 128 | | 297 | | 402 | |
| APT Segment EBITDA (loss) | | 2,658 | | 3,461 | | 13,842 | | (31,528) | |
| Gain on extinguishment of debt | | _ | | | | (2,562) | | | |
| Gain on change in estimate, asset retirement obligation | | (760) | | _ | | (2,702) | | _ | |
| Impairment | | _ | | _ | | _ | | 26,103 | |
| Gain on settlement | | _ | | (1,129) | | _ | | (1,129) | |
| APT Segment Adjusted EBITDA (loss) | \$ | 1,898 | \$ | 2,332 | \$ | 8,578 | \$ | (6,554) | |