

## Phase I Trimble County Landfill & CCRT Project

# Quarterly Report – Update #20 January 29, 2021

### **Executive Summary**

This report covers LG&E and KU's ("Companies") progress on the Phase I Trimble County Landfill and CCRT<sup>1</sup> Project through the fourth quarter of 2020.

Safety performance to date remains excellent with an Inception-to-Date OSHA Recordable Incident Rate of 0.47, compared to the industry average of 3.2 and 0.47 as reported for the project in the last report. The Year-to-Date Rate is 0.0.

The Project's total forecasted cost remains \$307.6 million (net),<sup>2</sup> compared to \$321.9 million (net) as provided in Case No. 2015-00194. The forecast reflects that all major contracts have been awarded, accounts for spend and progress to date on construction, incorporates resolution on cost and schedule from impacts due to geotechnical quantity differences, as well as the delays attributed to the record precipitation experienced to date on the project. Total spend to date has increased from \$289.3 million (net) to \$294.8 million (net) through December 31, 2020.

As previously reported, all necessary permits to construct the Project have been received. Project background information (i.e., scope, contract awards, conceptual design layouts, and permitting status) are located in the Appendix.

With regards to the CCRT subprojects, all subprojects (i.e., Unit 1 bottom ash, dry fly ash, gypsum dewatering, and pipe conveyor systems) are in commercial operation and have achieved final completion. Remaining scope completed during this quarter was the leachate pond pump commissioning and final site cleanup.

Construction on the landfill subproject scope continues by Charah LLC ("Charah"), a local company. Charah continues maintaining site erosion control measures, constructing storm water collection channels and ponds, and installing piping for the landfill underdrain system. The Companies continue to intermittently discuss land purchases with a few property owners adjacent to the future landfill as it relates to providing additional buffer areas between the landfill and nearby residents.

The Companies continue to monitor the COVID-19 pandemic. To date, there have been no impacts to the project.

<sup>1</sup> The Coal Combustion Residuals Treatment ("CCRT") subproject scope is described in detail in the Appendix found on page 10.

<sup>&</sup>lt;sup>2</sup> Co-Owners of the Trimble County plant: Illinois Municipal Electric Agency (IMEA) and Indiana Municipal Power Agency (IMPA) are responsible for 25%. IMEA owns 12.12% and IMPA owns 12.88%. Co-owner shares are not included in the costs provided in this report.



## **CCRT & Transport Quarterly Status Update**

The procurement and construction status for the major equipment is summarized in the table below:

Equipment	Awarded Contractor	Status	
Unit 1 Bottom Ash Submerged Chain Conveyor	United Conveyor Corporation	Placed into Commercial Operation in November 2017	
Fly Ash Conditioner and Conveying System	United Conveyor Corporation	Placed into Commercial Operation in April 2019	
Gypsum Dewatering Vacuum Belt Filter System	FLSmidth	Placed into Commercial Operation in April 2019	
Gypsum Portal Scraper Reclaimer	Ameco (same vendor as Ghent's portal reclaimer commissioned in December 2014)	Placed into Commercial Operation in April 2019	
Pipe Conveyor	Beumer Group (same vendor as Ghent's pipe conveyor commissioned in December 2014)	Placed into Commercial Operation in January 2020	

The focus of the CCRT & Transport subprojects during the quarter involved addressing storm water and erosion issues along the haul road corridor, minor punch-list/warranty items, receipt of remaining spare parts, receipt of the leachate pumps' backup generator and commissioning of the three leachate pond pumps.

## **Landfill Quarterly Status Update**

Charah continues to receive deliveries of landfill infrastructure components including underdrain piping and rock. Charah has completed the grading of slopes and continues constructing permanent storm water collection channels and ponds, as well as installing underdrain piping. Charah completed the leachate pond and sediment basin. Due to schedule impacts from the additional liner underdrain piping required throughout the landfill cell, the composite liner system work has been pushed to late spring of 2021. Deliveries of sand have been pushed out accordingly. Charah continues making necessary adjustments to their work plan to mitigate schedule impacts from the additional underdrain piping installation work. No impacts to operations are expected from the implementation of Charah's new work plan as they now are forecasting substantial completion (finalization of the landfill cell) in the fourth quarter of 2021 with final completion (final grading, finalization of haul roads, seeding) occurring in early 2022.

AMEC Foster Wheeler Environment & Infrastructure's construction quality assurance activities for the landfill this quarter included visual inspections, testing compaction of fill material, lab testing gypsum for use in the leachate collection system, concrete testing for fabric form concrete stormwater collection channels and ponds, attending meetings, and reviewing informational submittals and drawings.





CCR Landfill Overview - View Looking Toward Station (Looking East) - September 2020



CCR Landfill Overview - View Looking Toward Station (Looking North) - December 2020





CCR Landfill Overview - View Looking East - September 2020

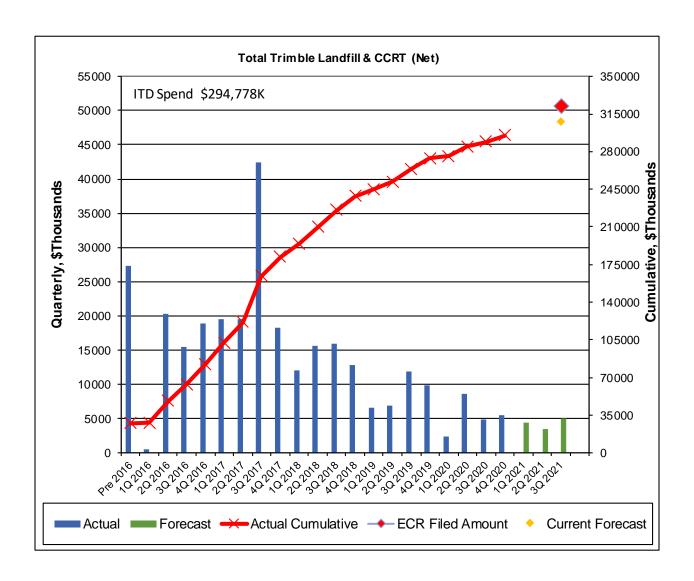


CCR Landfill Overview - View Looking East - December 2020



#### **Financials**

The Project's total forecasted cost remains \$307.6 million (net), a reduction from \$321.9 million (net) as provided in Case No. 2015-00194. The forecast reflects all major contracts that have been awarded, as well as spend and progress to date on construction, including all impacts from the record rainfall over the project construction period to date. Total spend to date has increased from \$289.3 million (net) to \$294.8 million (net) through December 31, 2020. Notes for the graph below: (1) includes a symbol ( $\diamondsuit$ ) to show the current forecast to completion, (2) Inception-to-Date ("ITD") Spend is shown in the upper left corner, and (3) the cash flow now incorporates the delays from weather events and differences in geotechnical "as found" conditions to bid geotechnical data.





### **Planned Activities for Next Quarter**

#### **CCRT**

AMEC continues to address a) minor warranty matters, b) wrap-up of the leachate pond pump commissioning drawings, and c) addition of the filtrate pump variable frequency drives.

#### **Transport**

Project Engineering will provide all final record drawings and turn over documents for the CCR Transport Subproject to the station, complete install of the leachate pond pump back-up generator, commission leachate pond pumps and associated piping. AMEC and its subcontractors will complete open and warranty items associated with shipment of remaining spare parts and checkout of the leachate pond pumps.

#### Landfill

Charah will complete construction of the storm water collection channels and continue installing liner underdrain piping associated with Phase I landfill. Charah will also stabilize the site for winter to prevent major erosion from occurring. The Companies remain open to purchasing a few remaining parcels of land within very close proximity to the landfill to provide a further buffer area between local residents and landfill operations.



#### **APPENDIX**

## **Scope**

The Trimble County Landfill and CCRT Project scopes include: CCR Treatment facilities, CCR Transport system, and Phase I of a dry CCR landfill.

The CCR Treatment facilities include the Unit 1 bottom ash dewatering system, conversion of station Fly Ash Transport from wet to dry conveyance, Fly Ash storage and treatment equipment and the station Gypsum Dewatering System and associated Gypsum storage/reclaim system. The CCR Transport system includes a pipe conveyor (approximately 1.5 miles) from the CCR Treatment area to the landfill location, a bridge over KY 1838, and a road from the station to the new dry CCR landfill. The CCR landfill includes Phase I of a new dry CCR landfill that is designed to receive and manage CCR generated over approximately 37 years. The landfill will be developed in multiple phases with each fully integrated as an extension of the adjacent landfill phase or cell. Only Phase I is included in the CCRT and Landfill project. The certificate of public convenience and necessity for this project was awarded in Case Nos. 2009-00197 and 2009-00198 and affirmed in Case No. 2015-00194.

#### **Previously Reported Contract Awards**

The CCRT Owner's Engineer contract was awarded to B&McD. B&McD has supported various projects for LG&E and KU, and recently supported the Trimble County Unit 1 PJFF capital project. B&McD assisted in the specification development for the CCRT and bottom ash scopes of work and assisted in the bid evaluations and EPC finalization.

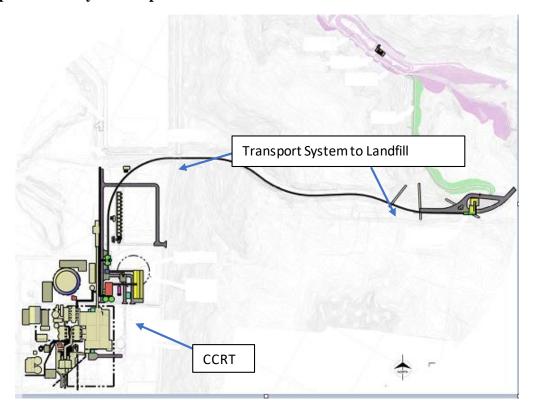
The Landfill Owner's Engineer contract was awarded to GAI. GAI has been the Engineer of Record through the permitting and landfill design phases, as well as the engineering firm that developed the specifications for the road and bridge work.

The CCRT and Transport portion of the project was awarded to AMEC. An EPC was executed with AMEC on April 7, 2016. AMEC has performed very well for the Companies in the recent past with completion of the E.W. Brown Unit 3 and Trimble County Unit 1 baghouse projects. AMEC was also awarded the CCR Rule Process Water System projects for Trimble County and Mill Creek generating stations.

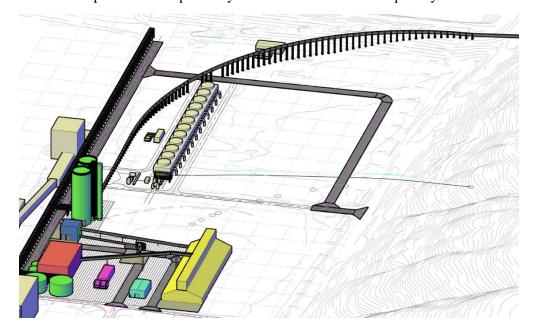
The Phase I Landfill portion of the project was awarded to Charah, a local company. Charah has previously completed successful projects for the Companies, such as the Ghent and E.W. Brown Landfill Phase I projects.



## **Conceptual Site Layout Graphics**



Graphic 1 - Conceptual Layout of the CCRT and Transport System



Graphic 2 - Conceptual 3D Site Layout of the CCRT



## **Table 1 - Landfill Permitting Status**

Required Regulatory Permit	<u>Submitted</u>	<u>Date Submitted</u>	<u>Date Received</u>
Kentucky Division of Waste Management Landfill Permit	Yes	January 3,2014	February 2017
US Army Corps of Engineers 404 Permit	Yes	April 25, 2014	June 28, 2017
US Army Corps of Engineers Nationwide Permit (Monitoring Wells)	Yes	September 9, 2013	September 2014
Kentucky Division of Water 401 Water Quality Certificate	Yes	April 25, 2014	October 24, 2016
Kentucky Division of Water Dam Safety Permit	Yes	<u>February 15, 2016</u>	<u>August 2016</u>
Kentucky Transportation Cabinet Bridge Permit	Yes	January 30, 2014	February 2015
Kentucky Division for Air Quality Title V Revised Air Permit	Yes	October 12, 2015	December 2015

Note: The underlined dates reflect updates from Application Exhibit 3 in Case No. 2015-00156 filed on May 22, 2015, which the Commission, by order, later consolidated into Case No. 2015-00194.