

# Phase I Trimble County Landfill & CCRT Project

# Quarterly Report – Update #22 July 30, 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 second quarter of 2021.

Safety performance to date remains excellent with an Inception-to-Date OSHA Recordable Incident Rate of 0.46, 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 increased from \$307.6 million (net),<sup>2</sup> to \$314.3 million (net), 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 \$297.5 million (net) to \$301.8 million (net) through June 30, 2021.

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 landfill leachate pond pump motor replacement performed under warranty, receipt of all spare parts and addition of the filtrate pump variable frequency drives.

Construction on the landfill subproject scope continues by Charah LLC ("Charah"), a local company. Charah continues maintaining site erosion control measures, preparing subgrade, installing clay liner, and paving the haul road to Phase I of the landfill. The companies plan to discuss land purchases with one remaining property owner adjacent to the future landfill as it relates to providing additional buffer areas between the landfill and nearby residents.

<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.

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



## **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, installation 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 leachate collection sand and rock. Charah has completed constructing gravel access roads around the perimeter of the landfill, the erosion and sediment/storm water management ("ES/SWM") pond, installing underdrain piping. Charah continues constructing the asphalt paved haul road to Phase I of the landfill. Charah has begun preparing subgrade and installing the clay liner system. 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 ("AMEC") construction quality assurance activities for the landfill this quarter included visual inspections, testing compaction of fill material, lab testing of sand to be used for the leachate collection system, 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 North -March 2021



CCR Landfill Overview - View Looking North -June 2021





CCR Landfill Overview - View of leachate and stormwater ponds (Looking West) - March 2021

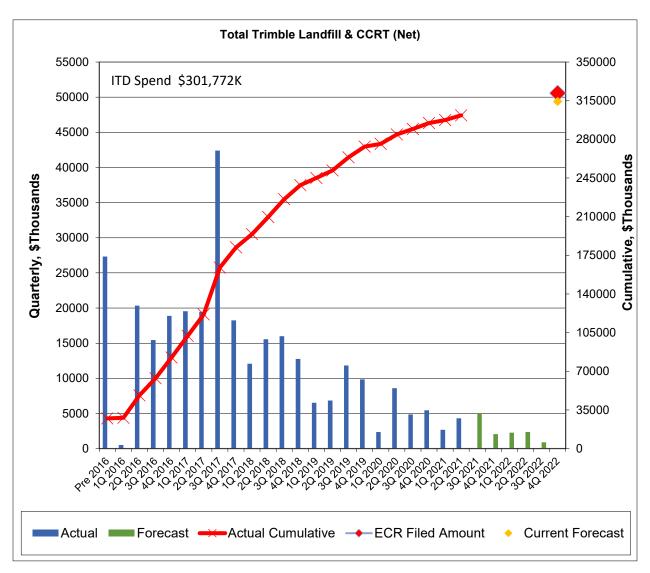


CCR Landfill Overview - View of leachate and stormwater ponds (Looking West) - June 2021



#### **Financials**

The Project's total forecasted cost increased from \$307.6 million (net) to \$314.3 million (net), which is still 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 \$297.5 million (net) to \$301.8 million (net) through June 30, 2021. Notes for the graph below: (1) includes a symbol ( ) 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 minor warranty matters.

### **Transport**

Project Engineering will complete commissioning of the leachate pond pump back-up generator. AMEC will address minor warranty items.

#### Landfill

Charah will complete the prepared subgrade, clay liner, and geomembrane liner installation for Phase I of the landfill. Charah will start constructing the leachate collection system and installing protective cover. The Companies remain open to purchasing one remaining parcel 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.

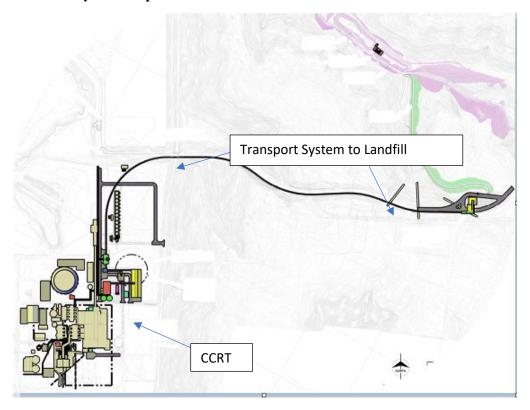
The Landfill Owner's Engineer contract was awarded to GAI. GAI has been the Engineer of Record through the permitting and landfill design phases, as well as the engineering firm that developed the specifications for the road and bridge work.

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.

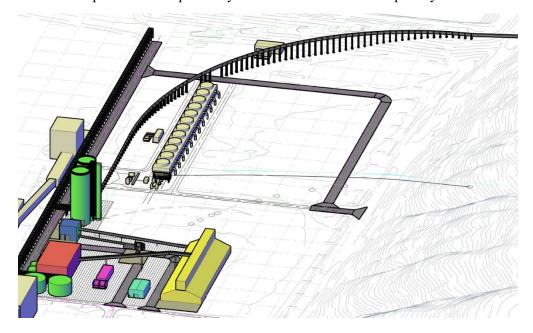
The Phase I Landfill portion of the project was awarded to Charah. Charah has previously completed successful projects for the Companies, such as the Ghent and E.W. Brown Landfill Phase I projects.



# **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	<b>Submitted</b>	<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.