

2016 ECR Plan Status Update Report Quarterly Report – Update #4 July 28, 2017

Executive Summary:

General

This report covers progress on the 2016 Environmental Cost Recovery ("ECR") Plan projects during the second quarter of 2017, as well as listing any significant events that have occurred to date. Safety performance through the second quarter of 2017 remains excellent with a Year-to-Date Recordable Incident Rate of 0.00. The Inception-to-Date Recordable Incident Rate declined from 1.26 to 1.10, and favorably compares to the industry average of 3.90. As reported in the fourth quarter report for 2016, the total 2016 ECR Plan projected costs decreased from \$993.6 million (net)¹ as provided in Case No. 2016-00026 and Case No. 2016-00027 to \$866.3 million (net). The Mercury Injection projects have slightly increased in this reporting period from \$12.4 million (net) to \$12.8 million (net), therefore the total 2016 ECR Plan forecasted cost have increased from \$866.3 million (net) to \$866.7 million (net). Total spend to date is \$58.5 million (net) through June 30, 2017, compared to \$40.7 million (net) last quarter.

As reported in the last quarterly report, the project work at Mill Creek to bring the existing Coal Combustion Residual ("CCR") facilities into compliance with the CCR Rule were completed and placed into service in December 2016. The work included a new outfall structure for the Main Ash Pond, modifications to the East embankments on the Main Ash Pond, along with the hard surfacing of the gypsum dewatering facility gypsum storage area. The modifications to the Ghent spillways on the #1 and #2 Ash Treatment Basins ("ATB") were completed and placed into service in February 2017.

During this reporting period, the contract for the Ghent Cooling Channel and North Cooling Pond (Phase I) scopes was awarded to Tetra Tech. Tetra Tech has begun mobilization to the Ghent site. The clean closure of the Mill Creek Emergency Pond was awarded to Charah. Charah has completed the removal of CCR from the pond and is nearing completion of the engineered backfilling of the pond. The Process Water System ("PWS") scope for Trimble County was awarded to AMEC and incorporated into an amended and restated Engineering, Procurement and Construction ("EPC") contract, thereby engaging AMEC to work on both the PWS scope reported on within this report and the CCR Treatment and Transport scope that is reported separately in the Phase I Trimble County Landfill & CCRT Project Quarterly Report.

CCR Compliance (CCR Rule and State CCR Pond Closures)

Safety performance to date is good with a year-to-date Recordable Incident Rate of 0.00 and an inception-to-date Recordable Incident Rate of 1.91. Both rates compare favorably to the industry average of 3.90.

¹ 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 share is not included in the costs provided in this report where "net" is shown.



Total projected costs for the CCR closure program remain unchanged from the previous report at \$839.0 million (net). Total spend to date through June 30, 2017 is \$50.7 million (net) compared to \$34.7 million in the last report.

Currently, the CCR Rule and State Closure programs are focused on detailed design for the CCR impoundment closures and the EPC awards for the PWS scopes at Mill Creek and Ghent. Communications with the Owner's Engineers ("OE") of AMEC, AECOM and CH2M for the conceptual and final CCR impoundment closure design and permitting continues as planned with meetings being held no less than once a week. The Companies continue to update the implementation schedules as required to reflect the current status of the program development and construction awards. The CCR impoundment closure program is on schedule to be completed on or before the Environmental Protection Agency's ("EPA") CCR Rule regulatory deadlines.

To ensure compliance with the EPA's CCR Rule, the Companies continue to hold program-wide meetings with the OEs and all affected facilities to provide an opportunity for all parties to provide updates on their work and to ensure the OEs are providing similar deliverables. In addition to the program-wide meetings, the Companies are holding weekly meetings with the individual OEs and the affected plants as well as monthly internal meetings to ensure all parties (i.e., generating stations, Environmental Affairs, Generation Planning, Legal, etc.) are in sync with each other.

The Companies issued Request for Quotation ("RFQ") packages for closure of the Mill Creek Emergency Pond, construction of the Ghent Cooling Channel and North Cooling Pond (Phase I), and closure of the Green River impoundments during the first quarter of 2017. The Mill Creek Emergency Pond contract was awarded to Charah. Charah has completed the removal of CCR from the pond and is expected to complete the engineered backfilling of the pond in the third quarter of 2017. The Ghent Phase I EPC was awarded to Tetra Tech who is in the process of mobilizing to the Ghent site. KU continues to review the Green River impoundment closure bid packages and expects to make an award in July 2017.

The Companies awarded the Trimble County PWS scope to AMEC in June 2017 as an amended and restated EPC to the CCRT scope AMEC is performing as part of the Trimble County Phase I Landfill Project. The Companies plan to award AMEC an EPC for the Mill Creek CCRT and PWS scopes in July of 2017. The execution of the EPC with AMEC at Mill Creek will include the full assignment of the dry bottom ash equipment agreement previously awarded by the Companies to United Conveyor Corporation ("UCC"). The Ghent PWS RFQ was re-issued to the market after the EPA rescinded the Effluent Limitations Guidelines due to the bottom ash scope not being required. Bids have been received and are being evaluated. The award of the Ghent PWS scope is now planned for August 2017.

Fleet Mercury Control Injection Systems Project

Safety performance to date remains excellent with a year-to-date Recordable Incident Rate of 0.00 and an inception-to-date Recordable Incident Rate of 0.00. Both compare favorably to the industry average of 3.90. The total projected costs have increased to \$12.8 million (net), slightly above the \$12.4 million (net) reported last quarter. This compares favorably to the original estimate of \$15.6 million (net). Total spend to date has increased from \$3.2 million to \$4.6 million through June 30, 2017. The expected in-service dates for the following facilities are currently as follows:



- Mill Creek Unit 3 Completed (placed in service in June 2016)
- Mill Creek Unit 4 Organo-sulfide System August 2017
- Mill Creek Units 1&2 Organo-sulfide System August 2017
- Mill Creek Unit 1 Halogenated Liquid System August 2017
- Mill Creek Unit 2 Halogenated Liquid System August 2017
- Trimble County Unit 1 Organo-sulfide System October 2017
- Ghent Unit 4 Organo-sulfide System October 2017
- Ghent Unit 2 Halogenated Liquid System November 2017
- Ghent Unit 1 Organo-sulfide System November 2017
- Ghent Unit 2 Organo-sulfide System November 2017
- Ghent Unit 3 Organo-sulfide System November 2017

Ghent Unit 2 Wet Flue Gas Desulfurization Improvements (WFGD) Project

Contractual performance testing was completed during the reporting period. Projected cost remain unchanged at \$3.2 million. Spend through June 30, 2017 is \$3.15 million compared to \$2.8 million last quarter.

E.W. Brown Landfill Phase II

The Companies continue to evaluate the timing and capacity needs for storage of CCR relative to Phase II of the E.W. Brown Landfill. As of this report, work on the E.W. Brown Landfill Phase II has not begun and construction will not begin prior to the one-year expiration of the CPCN authorization.

Quarterly Status Update:

State Division of Waste Closure Projects:

KU Project 39 – Green River (GR)/Pineville (PV)/Tyrone (TY) Impoundment Closure

Green River: CH2M was awarded the OE contract in late 2015 to perform the conceptual and final design, and permitting. KU is holding weekly and monthly update meetings to review the current status of the project. Conceptual design was completed on April 15, 2016 and final design was completed in June 2017. An initial permit meeting was held with the Kentucky Division of Waste Management ("KYDWM") on October 17, 2016, to present the design philosophy and solicit feedback on the permitting process. CH2M submitted the KYDWM permit application in the first quarter of 2017. KU received the first Notice of Deficiency ("NOD") on May 16, 2017 and is currently working on a response to the items identified. The RFQ for the closure work was issued to the market in April. The Company is currently negotiating the contract with an anticipated award in July 2017. To date, onsite activities have been limited to site visits by the OE and geotechnical explorations.

<u>Pineville:</u> AMEC was awarded the OE contract in late 2015 to perform the conceptual and final design, and permitting services. KU is holding weekly and monthly update meetings to review the current



status of the project. Conceptual design was completed on September 30, 2016 and the final design is progressing towards 90% completion. AMEC has started development of the KYDWM permit application and will build upon the experience gained during the Green River permitting process. Final design has been accelerated and is scheduled to be completed early in the third quarter of 2017. The RFQ will be issued to the market in the third quarter of 2017. To date, onsite activities have been limited to site visits by the OE and geotechnical explorations.

<u>Tyrone:</u> AMEC was awarded the OE contract in late 2015 to perform the conceptual and final design, and permitting services. KU is holding weekly and monthly update meetings to review the current status of the project. Conceptual design was completed on September 30, 2016 and the final design is progressing towards 90% completion. AMEC has started development of the KYDWM permit application and will build upon the experience gained during the Green River permitting process. Final design has been accelerated and is scheduled to be completed early in the third quarter of 2017. The RFQ will be issued to the market in the third quarter of 2017. To date, onsite activities have been limited to site visits by the OE and geotechnical explorations.

Federal CCR Rule Closure Projects:

Program-wide Items

The Companies are currently working on two subprojects related to interstitial dewatering of the CCR Impoundments. Interstitial water, also known as pore water, is water contained within the voids of the CCR stored within the impoundment. Feedback from various industry sources indicate that interstitial dewatering carries the most risk for construction contractors. In an effort to minimize this risk, the Companies will perform a pilot dewatering test at Ghent's ATB#2 and Cone Penetration Testing ("CPT") at E.W. Brown, Ghent, Mill Creek, and Trimble County stations. The goal of this work is to minimize the risk and costs of the interstitial dewatering to the Companies by better understanding what will be expected through on-site pilot scale dewatering. The physical work has been completed and the Companies anticipate that the final results will be available early in the third quarter of 2017.

KU Project 40 – Ghent (GH) Station CCR Rule Compliance Construction and New Process Water Systems

AECOM was awarded the OE contract in late 2015 to perform the conceptual and final design, and permitting. KU is holding weekly and monthly update meetings to review the current status of the project. In an effort to support the overall CCR Rule compliance plan at Ghent, AECOM accelerated the final design for the north end of the Gypsum Stack Cooling Channel and North Cooling Pond (Phase I). AECOM submitted the final design for Phase I during the first quarter of 2017. The RFQ for execution of the Phase I work was issued to the market and the contract was awarded to Tetra Tech in June 2017. Phase II design (i.e. Gypsum Stack South Cell, ATB #1 and ATB #2) was completed in the second quarter of 2017. The RFQ for the Phase II scope will be issued in the third quarter of 2017. To date, onsite activities have been limited to site visits by the OE, geotechnical explorations, installation of groundwater monitoring wells, and initial mobilization of Tetra Tech.



KU Project 41 and LG&E Project 30^2 – Trimble County (TC) Station CCR Rule Compliance Construction and New Process Water Systems

AMEC was awarded the OE contract in late 2015 to perform the conceptual and final design, and support the permitting process. KU is holding weekly and monthly update meetings to review the current status of the project. Conceptual design was completed on June 1, 2016 and 90% design was achieved in this reporting period. The final design report will be issued early in the third quarter of 2017. The RFQ package for the closure of the Bottom Ash Pond and Gypsum Storage Pond will be issued to the market in the third quarter of 2017. To date, onsite activities have been limited to site visits by the OE, geotechnical explorations, and installation of groundwater monitoring wells. AMEC was awarded the PWS scopes at Trimble County through an amended and restated EPC that incorporates the CCRT scope under the Phase I Landfill Project and the PWS scopes under this report into a single EPC agreement.

KU Project 42 – E.W. Brown (BR) Station CCR Rule Compliance Construction and New Process Water Systems

AMEC was awarded the OE contract in late 2015 to perform the conceptual and final design, and permitting services. KU is holding weekly and monthly update meetings to review the current status of the project. Conceptual design was completed on September 30, 2016 and the final design is progressing toward 90% completion. Final design is scheduled to be completed early in the third quarter of 2017and the RFQ package for closure of the auxiliary CCR pond will be issued in the third quarter of 2017. To date, onsite activities have been limited to site visits by the OE, geotechnical explorations, and installation of groundwater monitoring wells.

LG&E Project 29 – Mill Creek (MC) Station CCR Rule Compliance Construction and New Process Water Systems

AECOM was awarded the OE contract in late 2015 to perform the conceptual and final design, and permitting services. LG&E is holding weekly and monthly update meetings to review the current status of the project. In an effort to support the overall CCR Rule compliance plan at Mill Creek, AECOM accelerated the final design for the Emergency Pond. Final design for the Emergency Pond closure was completed in the first quarter of 2017. An award was given to Charah in the second quarter of 2017. Charah has completed the removal of CCR from the pond and is expected to complete the engineered backfilling of the pond in the third quarter of 2017. Design of the south ponds and Main Ash Pond were completed in the second quarter of 2017.

Fleet Mercury Control Injection Systems Project

Mill Creek - Hall Contracting was awarded the Contract for construction and installation for the Mill Creek Unit 1, 2, and 4 systems. The organo-sulfide systems are expected to be in service in July 2017 and the halogenated liquid systems are expected to be in service in August 2017 for the three remaining units. As previously reported, the injection system for Mill Creek Unit 3 is now operational.

² KU and LG&E's net costs are split 48%/52% respectively.



Ghent - AECOM finalized the design of the Ghent 1, 2, 3, and 4 organo-sulfide systems and Ghent 2 halogenated liquid system in June 2017. LG&E is expecting to issue the RFQ for construction and installation of the Ghent systems in July 2017. The expected in-service dates for the Ghent systems are in November 2017.

Trimble County - AECOM finalized the design of the Trimble County Unit 1 organo-sulfide system in June 2017. Due to space constraints and concerns over unitization, AECOM added scope to redesign the electrical and controls for the existing Trimble County Unit 2 system. LG&E is expecting to issue the RFQ for construction and installation of the Trimble County systems in July 2017 with an in-service month of October 2017.

Ghent Unit 2 Wet Flue Gas Desulfurization Improvements (WFGD) Project

The work on the Ghent Unit 2 WFGD is mechanically complete. Performance testing was completed. The test report is currently under review.

Planned Activities for Next Quarter:

State Division of Waste Closure Projects

The Companies will award the construction contract for the Green River Impoundment closure project. Development of RFQ packages for the Pineville and Tyrone projects will continue.

Federal CCR Rule Closure Projects

CCR Closures:

Plans for the third quarter of 2017 include completing the clean-closure and engineered backfilling of the Mill Creek Emergency Pond. Tetra Tech is expected to begin construction on the Ghent Phase I closure scopes. Project Engineering will finalize the development of the RFQ packages for the remainder of the Ghent closure subprojects (Phase II), as well as issue the RFQ for the Mill Creek Construction Runoff, Clearwell, and Dead Storage subprojects (South Ponds).

PWS:

The Companies plans to execute the Ghent PWS scope EPC agreements for Mill Creek and Ghent. AMEC is expected to begin mobilizing to Mill Creek for the PWS scope. The Companies will continue reviewing the UCC dry bottom ash system design and the fabrication for the Mill Creek PWS project.

Fleet Mercury Control Injection Systems Project

Bids for the work at Trimble County are due back in early August 2017, with an expected award date late August. The work is expected to commence in September and planned to be in service in October.



Bids for the Ghent scope are due back in August 2017, with an expected award in September. The work is expected to take up to ten weeks to complete with in service planned in November 2017.

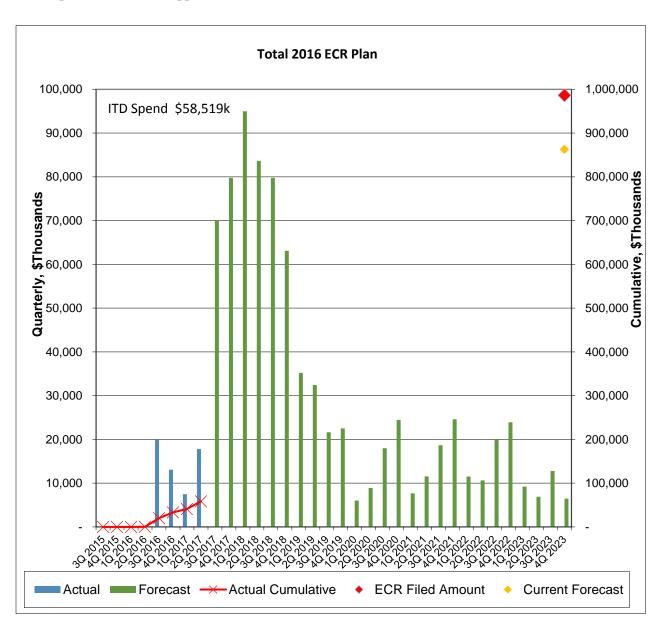
Ghent Unit 2 Wet Flue Gas Desulfurization Improvements (WFGD) Project

The Companies plan to finalize the review of the test report.



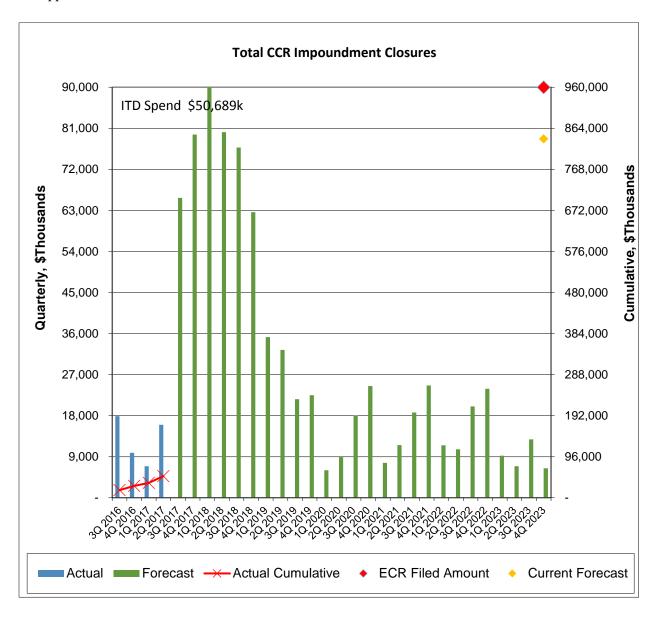
Financials:

The Mercury Injection projects have slightly increased in this reporting period from \$12.4 million (net) to \$12.8 million (net), therefore the total ECR Plan forecasted cost have increased from \$866.3 million (net) to \$866.7 million (net). Total spend through June 30, 2017 is \$58.5 million (net). For the graph below: (1) the chart includes a symbol () to show the current forecast to completion; and an (2) inception-to-date (ITD) spend shown in the upper left of the chart.



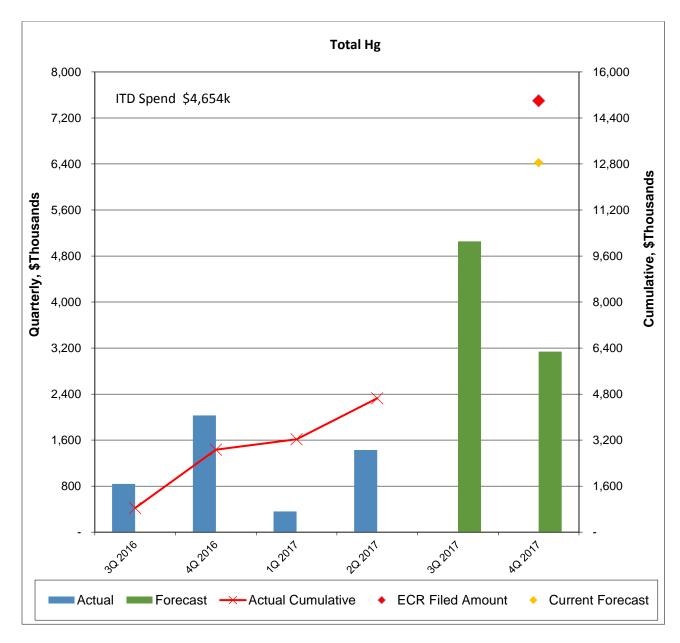


No change in CCR Impoundment Closure total forecasted cost occurred during this reporting period. Total spend through June 30, 2017 is \$50.7 million (net). Note for the graph below: (1) the chart includes a symbol () to show the current forecast to completion; and (2) inception-to-date (ITD) Spend is shown in the upper left of the chart.



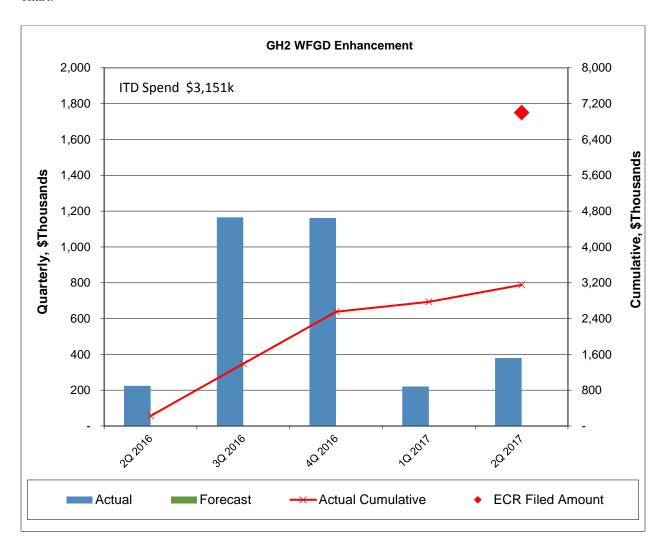


The Mercury Injection projects total forecasted cost have slightly increased in this reporting period from \$12.4 million (net) to \$12.8 million (net). Total spend through June 30, 2017 is \$4.6 million. Note for the graph below: (1) the chart includes a symbol () to show the current forecast to completion; and (2) ITD Spend is shown in the upper left of the chart.





No change in Ghent 2 WFGD Enhancement total forecasted cost occurred during this reporting period. Total spend through June 30, 2017 is \$3.15 million. Note for the graph below: (1) the chart includes a symbol () to show the current forecast to completion; and (2) ITD Spend is shown in the upper left of the chart.





No change in Brown Landfill Phase II forecasted cost occurred during this reporting period. Total spend through June 30, 2017 is \$0.024 million. Note for the graph below: (1) the chart includes a symbol () to show the current forecast to completion; and (2) ITD Spend is shown in the upper left of the chart.

