

**2016 ECR Plan Status Update Report  
Quarterly Report – Update #27  
May 1, 2023**

**Executive Summary:**

**General**

This report covers LG&E and KU’s (“Companies”) progress on the 2016 Environmental Cost Recovery (“ECR”) Plan through the first quarter of 2023.

The overall 2016 ECR Plan safety performance through the first quarter of 2023 remains excellent with a year-to-date OSHA Recordable Incident Rate of 0.00 and an inception-to-date OSHA Recordable Incident Rate of 0.43, compared to the industry average of 3.2.

The total 2016 ECR Plan projected cost remains flat at \$996.7 million(net)<sup>1</sup>, compared to the filed total of \$996.4 million as provided in Case Nos. 2016-00026, 2016-00027, and 2017-00483. Total spend to date increased from \$923.5 million (net) last quarter to \$936.7 million (net) through March 31, 2023.

**CCR Compliance (CCR Rule and State CCR Pond Closures)**

Safety performance through the first quarter is excellent with a year-to-date OSHA Recordable Incident Rate of 0.00 and an inception-to-date Recordable Incident Rate of 0.47, compared to an industry average Recordable Incident Rate of 3.2.

The total projected cost for the Coal Combustion Residual (“CCR”) Closure Program remains flat at \$966.5 million (net). Total spend to date through March 31, 2023 increased from \$893.4 million (net) last quarter to \$906.5 million (net).

The remaining engineering activities primarily consist of supporting ongoing construction activities and updating design documents to reflect “as-built” conditions of the completed projects. Remaining activities are associated with awarded contracts through warranty periods.

In compliance with the U.S. Environmental Protection Agency’s (“EPA”) final closure deadline of April 11, 2021, the Companies have initiated closure of all unlined CCR surface impoundments. While the large scale of the various closure processes takes years to complete, all of LG&E and KU’s former CCR surface impoundments have ceased receiving CCRs for disposal and other process streams have been successfully re-routed, diverted, or otherwise modified so that the closed units no longer receive any other solid or liquid materials. By persistently pursuing the closure processes, the Companies have completed the complex

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<sup>1</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.

process of physical closure for 16 CCR Rule and State CCR Impoundment Closures. The Companies continue to progress towards completing closure of the three remaining CCR impoundments.

On January 11, 2022, EPA issued a press release and preliminary decision documents for nine of the fifty-seven Part A applications it received requesting an extension on the deadline for closure for CCR impoundments. The EPA has also sent letters to various facilities raising concerns about improper groundwater monitoring, insufficient remedial progress, and regulation of inactive surface impoundments, which provide further insight into seemingly more aggressive interpretations of the Rule. EPA's position, outlined in the decision documents and letters, differed from the regulated community's understanding of the Rule. As a result, *Vistra*<sup>2</sup> and *USWAG*<sup>3</sup> have prepared a legal challenge to the EPA's positions, suggesting that their interpretations amounted to regulatory changes that were not promulgated. The U.S. Chamber of Commerce and Texas have intervened in support of *Vistra*'s position. The challenge process is likely to continue through 2023.

Given the text of the Rule has not been proposed or changed by the EPA and the Companies have not received any direct correspondence from EPA related to CCR Rule compliance, efforts will continue to complete the three remaining in-place closures that are already underway.

EPA has identified potential changes to the CCR Rule for mid-2023. With active litigation and pending revisions to the CCR Rule, LG&E and KU continue to track CCR Rule-related developments but will maintain their ongoing efforts to close all CCR impoundments in a manner that is consistent with the existing CCR regulations.

### CCR Impoundment Closures

- Ghent – Tetra Tech's ("TT") Phase III scope (closure of ATB #2) is in closure as of January 9, 2020. Work to date on ATB #2 is progressing to plan with regrading of the in-place CCR material; hauling of CCR material from Coal Combustion Residual Treatment area and filter cake from the Process Water System ("PWS"); and installation of the synthetic liner system and protective cover soil over areas of ATB #2 that have achieved final grade. TT continues to progress the Ghent projects very well with no compliance issues forecasted.
- E.W. Brown – Thalle Construction's ("Thalle") contract was terminated on February 17, 2023 for cause due to failure to meet contract requirements associated with dewatering of the impoundment. Thalle demobilized the onsite interstitial water treatment facility as well as all other tools and equipment. The Auxiliary Pond dewatering well system remains in place as well as associated surface piping. The Companies contracted WSP (formerly Wood Environmental & Infrastructure Solutions, Inc.) to monitor the interstitial water elevations within the wells monthly. Project Engineering continues to work closely with WSP to review the well data and to determine next steps to fully complete the project.

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<sup>2</sup> *Vistra* is a trade association responsible for addressing solid and hazardous waste issues on behalf of the utility industry.

<sup>3</sup> *USWAG* is the Utility Solid Waste Activities Group.

- Mill Creek –Project was completed in 2022. No further work is required.
- Trimble County – TT continues hauling CCR material to the Bottom Ash Pond (“BAP”) for beneficial use and dewatering the BAP. TT continues mass excavation of gypsum out of the GSP and hauling it to the BAP to be used as beneficial use fill material.
- Tyrone – Project completed in the second quarter of 2020. No further work is planned at Tyrone.

The CCR Impoundment Closure Program is on schedule to be completed on or before the CCR Rule regulatory deadlines.<sup>4</sup> To ensure the Companies’ CCR Compliance projects comply with the regulations and to share best practices and lessons learned, the Companies continue to hold program-wide meetings with internal project management teams and affected stations. The program-wide meetings provide an opportunity for all parties to deliver updates and to ensure the contractors are providing similar deliverables across the projects.

### Process Water System Projects

- Trimble County – Project has been placed into Commercial Operation.
- Mill Creek – Project has been placed into Commercial Operation.
- Ghent – Project has been placed into Commercial Operation.
- E.W. Brown – Project has been placed into Commercial Operation.

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<sup>4</sup> EPA has committed to revising various portions of the CCR Rule. While changes to the CCR Rule have been proposed, EPA has indicated that there are still other additional proposals under development. Many factors have substantially extended EPA’s anticipated timeline for revisions beyond their original schedule. However, the Companies’ strategies continue to be resilient and absent major regulatory developments, we do not expect that CCR Rule changes will require any major re-evaluations of our plans. LG&E and KU remain well positioned to comply with the evolving CCR Rule requirements. The Companies will continue to closely monitor revisions to the CCR Rule and to ongoing litigation and will continue to update the Commission as it relates to issues that may affect construction schedules and activities.

## Schedules

### CCR Rule and State CCR Impoundment Closures

| <u>Project</u>  | <u>Project #</u>                  | <u>EPC Status<sup>5</sup></u> | <u>Planned / Actual In-Service Date<sup>6</sup></u>                      |
|---|-----------------------------------|-------------------------------|--|
| E.W. Brown Aux Pond   | KU Project 42                     | Awarded July 9, 2018          | Closure Completed<br>4Q 2022   |
| E.W. Brown Main Ash Pond<br>(Deleted Phase III of Landfill) | KU Project 36                     | Completed                     | Closure Completed<br>4Q 2020   |
| Ghent ATB #1  | KU Project 40                     | Awarded September 7, 2018     | Cap and Closure Completed<br>4Q 2021                                     |
| Ghent ATB #2  | KU Project 40                     | Awarded May 22, 2020          | December 2024  |
| Ghent Gypsum Stack  | KU Project 40                     | Amended Sept. 7, 2018         | Clean Closure Completed<br>3Q 2021                                       |
| Green River Main Pond                                       | KU Project 39                     | Completed                     | Cap and Closure Completed<br>2Q 2019                                     |
| Green River ATB #2  | KU Project 39                     | Completed                     | Cap and Closure Completed<br>3Q 2019                                     |
| Green River SO2 Pond  | KU Project 39                     | Completed                     | Clean Closure Completed<br>2Q 2019                                       |
| Mill Creek Ash Pond   | LG&E Project 29                   | Awarded April 4, 2019         | Cap and Closure Completed<br>3Q 2021                                     |
| Mill Creek Clearwell Pond                                   | LG&E Project 29                   | Completed                     | Clean Closure Completed &<br>New Pond in Service<br>4Q 2018              |
| Mill Creek Construction Runoff Pond                         | LG&E Project 29                   | Completed                     | Clean Closure Completed 2Q<br>2018<br>and New Pond in Service<br>3Q 2018 |
| Mill Creek Emergency Pond                                   | LG&E Project 29                   | Completed                     | Clean Closure Completed and<br>area structurally backfilled in<br>2017   |
| Mill Creek Dead Storage Pond                                | LG&E Project 29                   | Completed                     | Clean Closure Completed and<br>area structurally backfilled<br>3Q 2019   |
| Pineville Ash Pond  | KU Project 39                     | Completed                     | Cap and Closure Completed<br>3Q 2019                                     |
| Trimble County Bottom Ash Pond                              | KU Project 41,<br>LG&E Project 30 | Awarded August 13, 2021       | December 2024  |
| Trimble County Gypsum Storage Pond                          | KU Project 41,<br>LG&E Project 30 | Awarded August 13, 2021       | October 2023   |
| Tyrone Ash Pond   | KU Project 39                     | Completed                     | Cap and Closure Completed<br>3Q 2019                                     |

<sup>5</sup> Engineering, Procurement, and Construction (“EPC”) Status – the red font signifies actuals.

<sup>6</sup> The Planned In-Service Dates reflect the executed EPCs – the red font signifies actuals. Ghent ATB #2 and Trimble County BAP was changed to 2024 to reflect a mid-point between the original rule and the proposed rule changes being litigated. Trimble County GSP completion date reflects completion of the work; however, the removal of CCR is planned to be completed in 2023.

PWS Projects

| <u>Project</u>     | <u>Project #</u>                  | <u>EPC Status</u> <sup>7</sup> | <u>Planned/ Actual In-Service Date</u> <sup>8</sup> |
|--------------------|-----------------------------------|--------------------------------|---|
| E.W. Brown PWS     | KU Project 42                     | Completed                      | Placed in Service<br>May 2020                       |
| Ghent PWS          | KU Project 40                     | Completed                      | Placed in Service<br>April 2020                     |
| Mill Creek PWS     | LG&E Project 29                   | Completed                      | Placed in Service<br>October 2019                   |
| Trimble County PWS | KU Project 41,<br>LG&E Project 30 | Completed                      | Placed in Service<br>October 2019                   |

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## **E.W. Brown Landfill Phase II and Phase III**

Work associated with this project has been completed, no further update will be provided.

### **Quarterly Status Update:**

#### **Federal CCR Rule Closure Projects:**

#### **KU Project 40 – Ghent (GH) Station CCR Rule Compliance Construction and New PWS**

KU continues to hold weekly and monthly project update meetings. Work to date on ATB #2 is progressing to plan with regrading of the in-place CCR material; hauling of material from the Coal Combustion Residual Treatment area, as well as filter cake from the PWS; and installation of the synthetic liner system and protective cover soil over areas of ATB #2 that have achieved final grade.

TT began shaping and stabilizing the bottom of the east sediment pond that will ultimately capture clean stormwater runoff from the eastern half of the ATB #2 cap and route it through the new east sampling structure. TT completed fusing the new 36” HDPE ATB #2 discharge pipe and staged it along the West Haul Road in preparation of the installation beginning in the second quarter of 2023. The precast manhole structures that will accompany the 36” discharge pipe were delivered to the site. TT continues to progress the Ghent projects very well with no compliance issues forecasted.



*Phase III Ghent ATB #2 – April 2023*



## **KU Project 41 and LG&E Project 30<sup>9</sup> – Trimble County (TC) Station CCR Rule Compliance Construction and New PWS**

LG&E and KU continues to hold weekly and monthly project update meetings. TT continues hauling CCR material to the Bottom Ash Pond (“BAP”) for beneficial use; grading activities within the BAP; removal of stormwater runoff from the Gypsum Storage Pond (“GSP”); continued dewatering the BAP; continued constructing access roads and rim ditches in the GSP; continued mass excavation of gypsum within the GSP and transporting it to the BAP to be used as beneficial use fill material.

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<sup>9</sup> KU and LG&E’s net costs are split 48% and 52%, respectively.





*Trimble BAP – Looking North – December 2022*



*Trimble BAP – Looking North – April 2023*





*Trimble GSP – Looking South – January 2023*



*Trimble GSP – Looking South – April 2023*

## **KU Project 42 – E.W. Brown (BR) Station CCR Rule Compliance Construction and New PWS**

- E.W. Brown – Thalle Construction’s (“Thalle”) contract was terminated on February 17, 2023 for cause due to failure to meet contract requirements associated with dewatering of the impoundment. Thalle demobilized the onsite interstitial water treatment facility as well as all other tools and equipment. The Auxiliary Pond dewatering well system remains in place as well as associated surface piping. The Companies contracted WSP to monitor the interstitial water elevations within the wells monthly. Project Engineering continues to work closely with WSP to review the well data and determine next steps to fully complete the project.

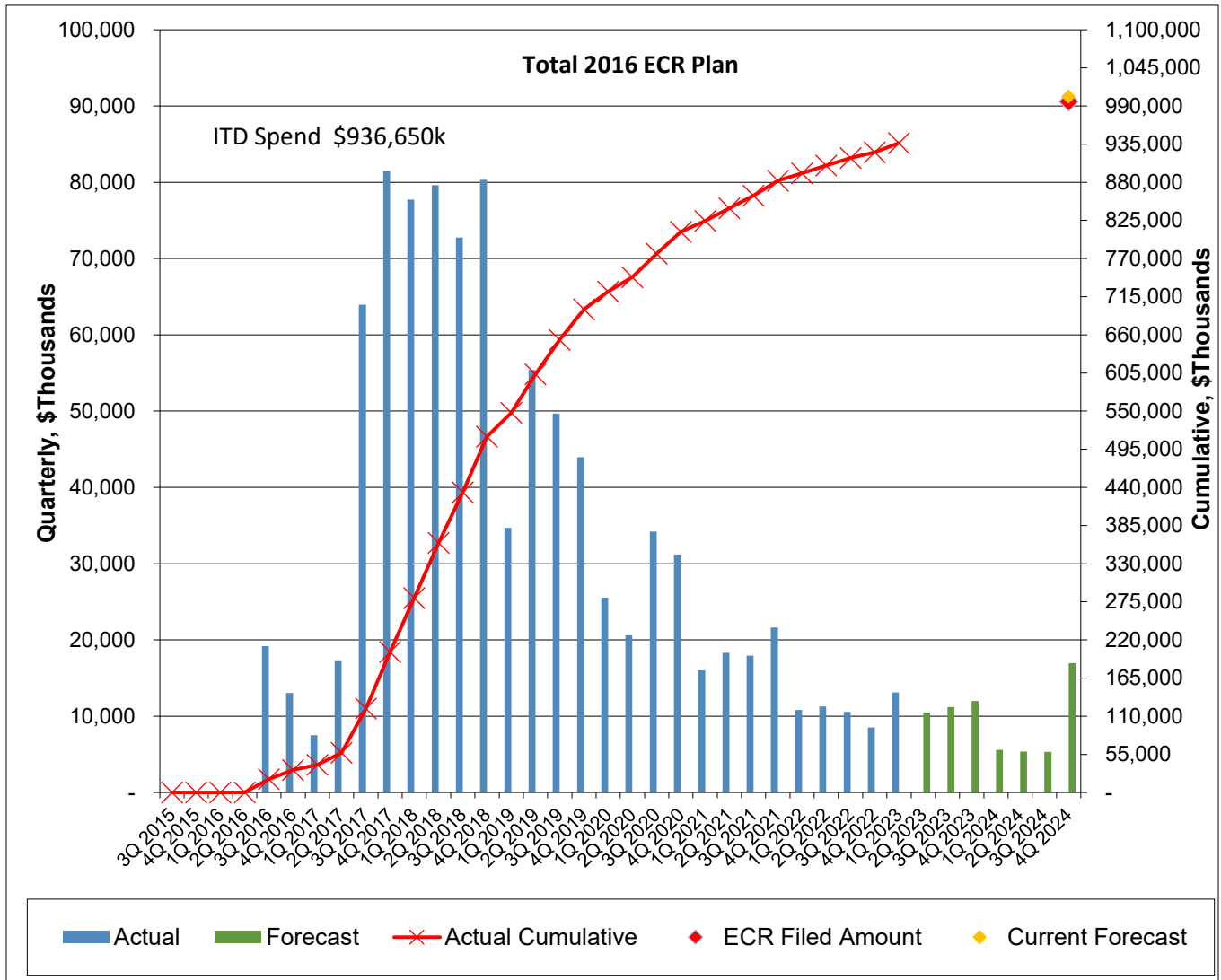


**LG&E Project 29 – Mill Creek (MC) Station CCR Rule Compliance Construction and New PWS**

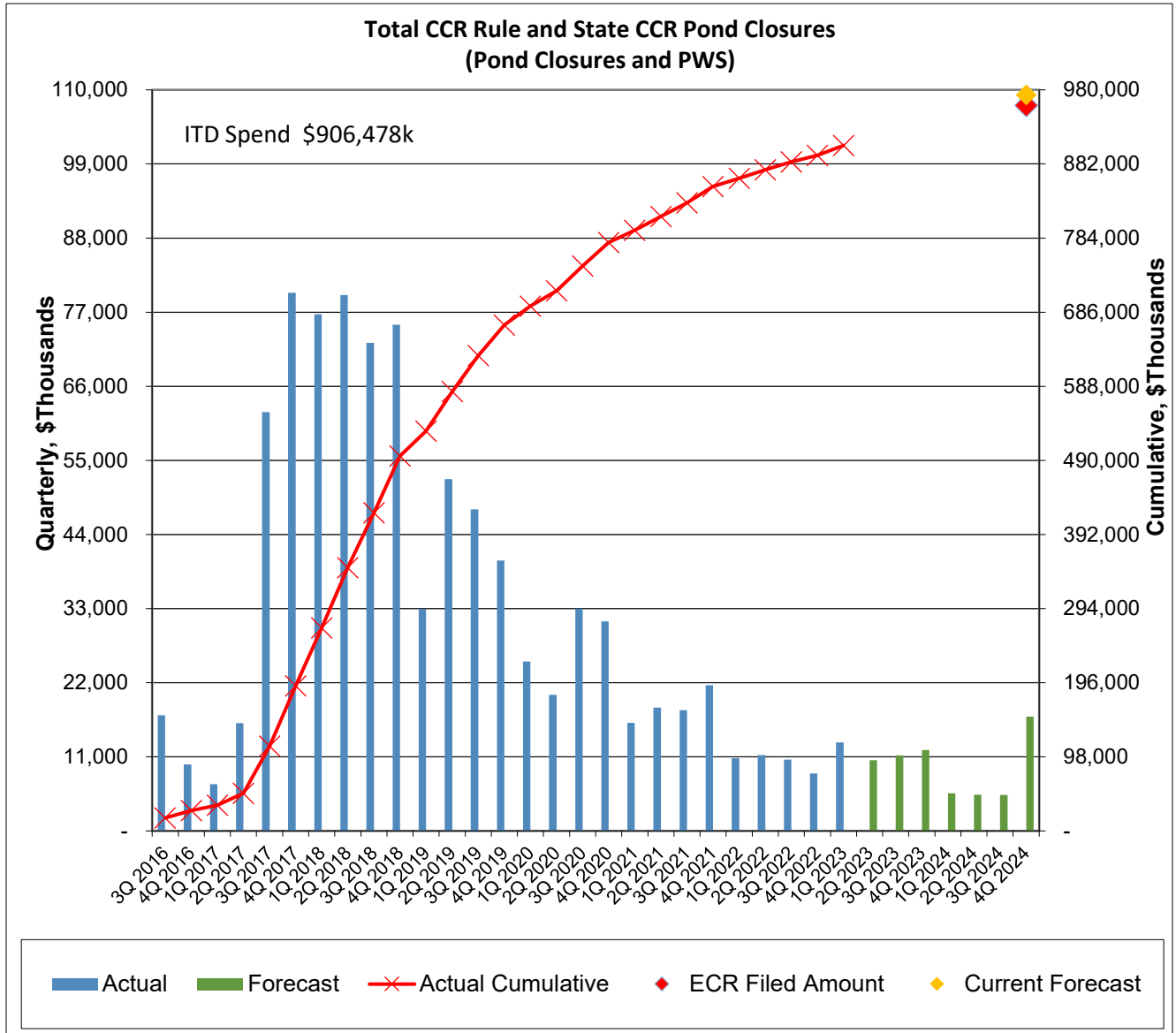
No further work is required.

**Financials:**

The total 2016 ECR Plan projected cost remained flat at 996.7 million (net), compared to the filed total of \$996.4 million. Total spend through March 31, 2023 has increased from \$923.5 million (net) last quarter to \$936.7 million (net). The graph below includes 1) a symbol ( ◆ ) to show the current forecast to completion and (2) inception-to-date (“ITD”) Spend in the upper left of the chart.

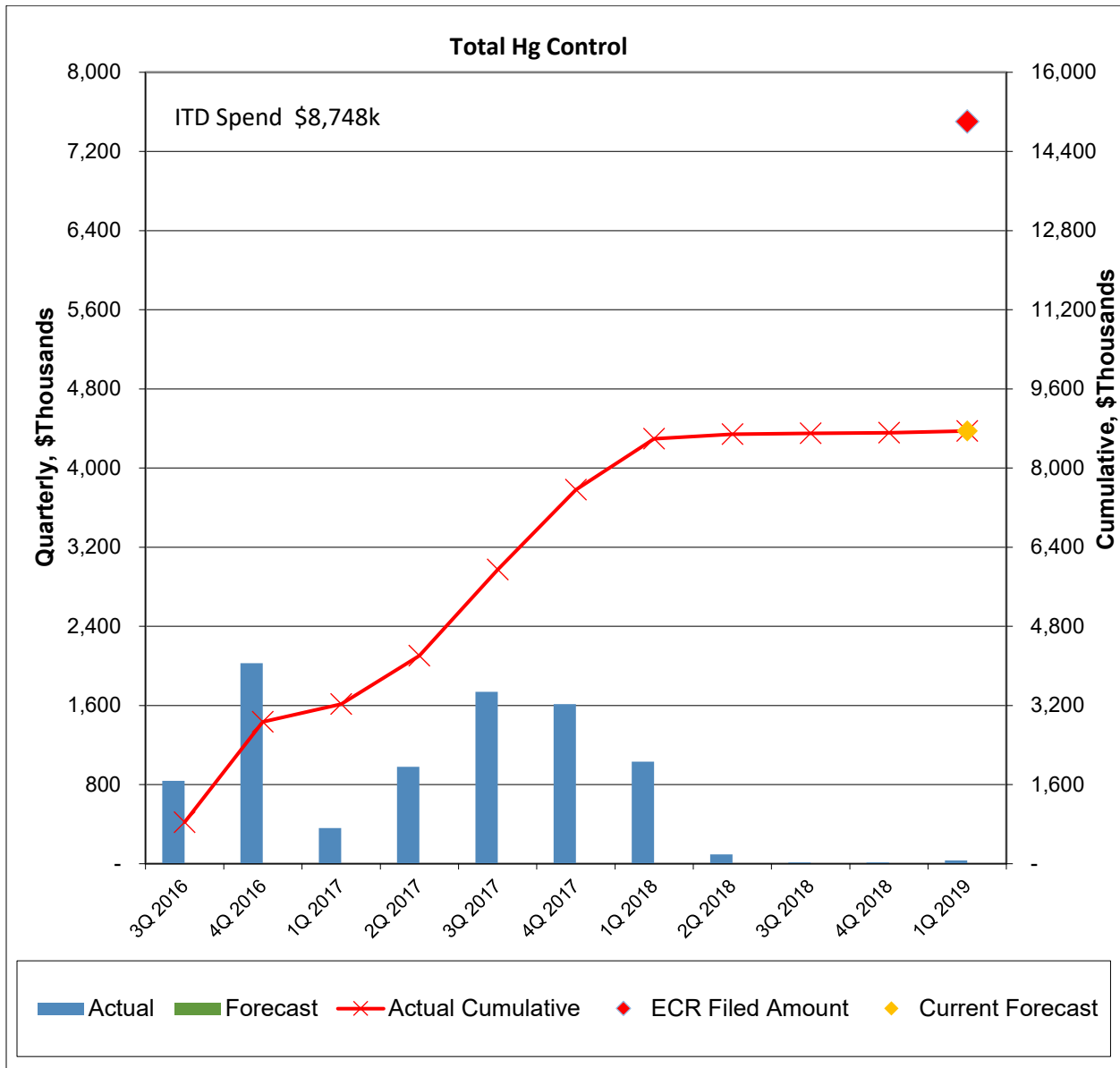


The CCR Impoundment Closure total forecasted cost remained flat at \$966.5 million (net). Total spend through March 31, 2023 has increased from \$893.4 million (net) last quarter to \$906.5 million (net). The graph below includes 1) a symbol ( ◆ ) to show the current forecast to completion and (2) ITD Spend in the upper left of the chart.

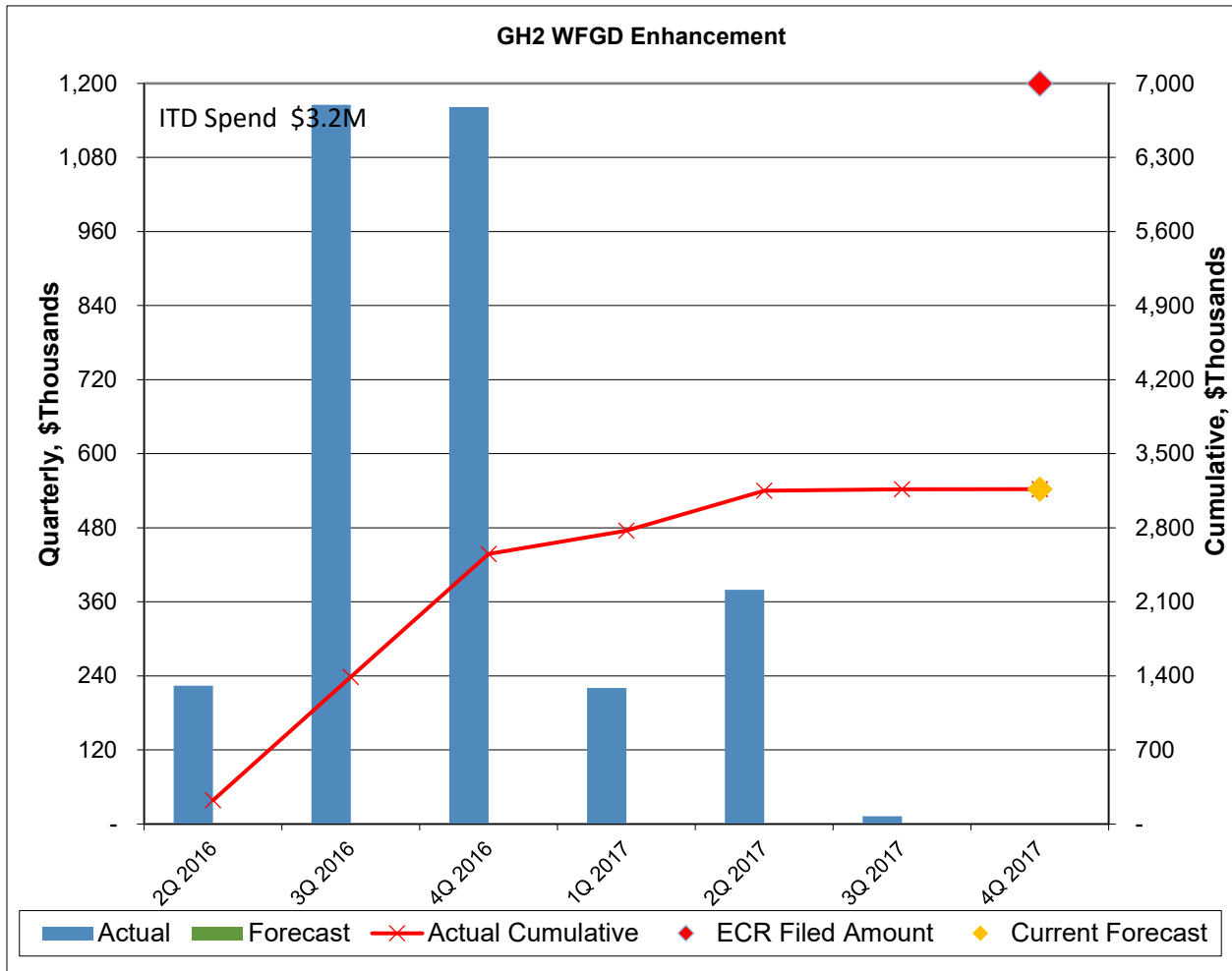




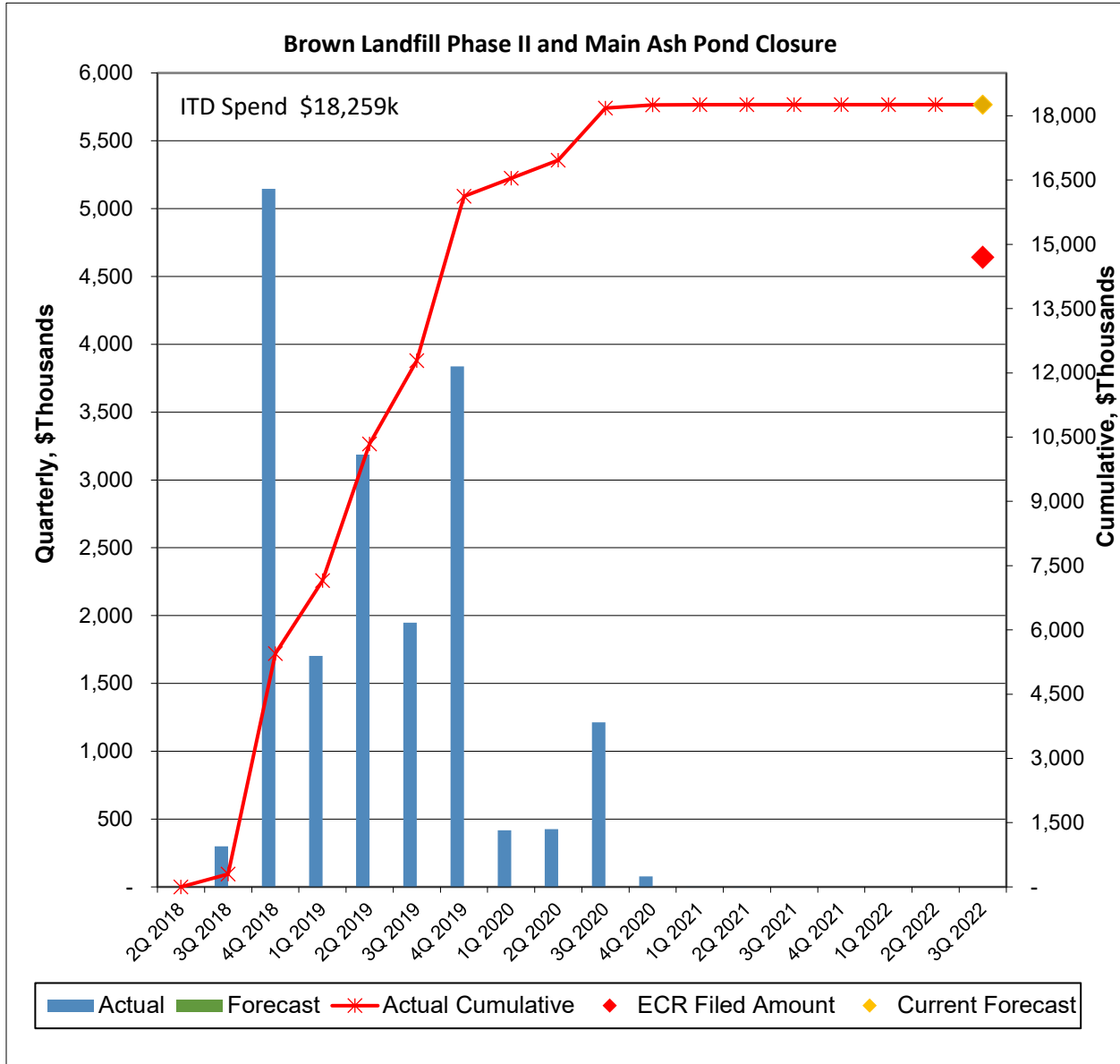
The Mercury Injection projects have been completed and commissioned. The project’s total spend was \$8.7 million compared to the filed estimate of \$15.0 million.



The Ghent Unit 2 WFGD Enhancement project has been completed. Total spend on the project was \$3.2 million compared to the filed estimate of \$7.0 million.



The E.W. Brown Landfill Phase II and Phase III Closure project has been completed. Total spend on the project was \$18.3 million.



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

### **Federal CCR Rule Closure Projects**

#### CCR Closures:

TT will continue with Phase III closure activities at Ghent, as well as closure activities on the Trimble County Bottom Ash Pond and Gypsum Storage Pond. At E.W. Brown, the Companies and WSP will continue to take and analyze dewatering well elevation readings as well as evaluate alternatives to complete the closure of the auxiliary CCR impoundment. The Companies will continue to monitor and work through warranty and maintenance issues, on all the projects, should they arise.

#### PWS Projects:

AMEC will continue working on warranty items on both the Mill Creek and Trimble County PWS projects. B&McD will close out all outstanding warranty items at Ghent. Both AMEC and B&McD, along with the Companies and the Companies' OE, will continue reviewing warranty matters along with remaining final engineering designs, procurement activities, and the operation of Suez's PWS equipment and process at all three stations (Ghent, Mill Creek, and Trimble County).