



**Memorandum from the Office of the Inspector General**

September 17, 2020

Michael S. Turnbow

**REQUEST FOR FINAL ACTION – AUDIT 2020-15724 – CONTRACTORS’ USE OF EQUIPMENT PROVIDED BY TVA’S EQUIPMENT SUPPORT SERVICES**

As part of our annual audit plan, we performed an audit to determine the effectiveness of the Tennessee Valley Authority’s (TVA) process for managing heavy equipment provided to contractors through TVA’s Equipment Support Services (ESS) group. ESS provides heavy equipment and other equipment support services to business units across TVA and charges specific projects for the equipment which is provided. ESS’s customers include (1) TVA organizations obtaining services directly or (2) contractors performing work for the TVA organizations. In summary, we determined TVA was not effectively managing contractors’ use of equipment provided by ESS. Specifically, we found:

- ESS provides equipment to contractors on TVA projects that have cost reimbursable payment terms. Although ESS does not bill the contractors for the equipment (i.e., ESS charges a TVA project, not the contractor), certain contractors bill TVA for the ESS equipment even though their contract with TVA provides that TVA can only be billed for actual equipment costs. Even though the contractors subsequently provide credits or refunds to TVA for the equipment, it is administratively difficult for TVA to ensure it receives reimbursement for all the costs billed by the contractor.
- ESS provides equipment to certain contractors on TVA projects that have fixed price or fixed unit rate payment terms. However, TVA’s Standard Programs and Processes (SPP) do not provide guidelines or processes for TVA to determine the cost effectiveness of providing ESS equipment on fixed price/fixed unit rate projects or to ensure TVA receives the appropriate reductions on the fixed price/fixed unit rates.

We recommend TVA management (1) discontinue allowing contractors to bill TVA for ESS equipment on cost reimbursable tasks (i.e., comply with the contract) and (2) implement a process to determine the cost effectiveness of providing ESS equipment on fixed price/fixed unit rate projects prior to providing the equipment and ensure appropriate reductions are made to the fixed price/fixed unit rates if ESS equipment is provided.

In response to our draft audit report, TVA management agreed with our recommendations and plans to:

1. Implement a standardized process that better ensures TVA's contractors do not bill TVA for ESS equipment on cost reimbursable tasks.
2. Request contractor pricing on future fixed price/fixed unit rate projects that includes using ESS equipment and not using it. With both prices, TVA can easily evaluate the cost effectiveness of providing ESS equipment on these projects.

However, TVA management disagreed with how the overall conclusion was worded in the report and stated that it incorrectly suggests that TVA is completely ineffective in managing contractors' use of ESS equipment, which is not the case. TVA management suggested an alternative sentence. See the Appendix for TVA management's complete response.

As discussed in detail in the report, some contractors were utilizing TVA's ESS equipment in accordance with the terms of their contracts with TVA and the SPP. However, overall, TVA has opportunities to improve its management of contractors' use of equipment provided by ESS.

## **BACKGROUND**

TVA's ESS group was formed in 2009 after TVA determined that all heavy equipment and associated functions should be centralized under one support organization. ESS provides TVA business units with heavy equipment, maintenance services, compliance and inspections, crane and heavy moves, river operations, and transportation services. In addition ESS has agreements with third party rental suppliers for use when its owned equipment is not available. According to ESS, its equipment fleet currently has a utilization rate of 85 percent. In addition, ESS estimated its (1) internal rates saves TVA an average of 53 percent when compared to outside vendor rates and (2) third party rental contracts saves TVA about 22 percent compared to the outside market.

ESS conducts business in accordance with ESS-SPP-07.002, *Equipment Support Services Conduct of Business*. The purpose of the SPP is to document the requirements, responsibilities, and process for:

- Equipment Assignment – The customer submits an equipment request form and ESS determines if TVA-owned ESS equipment is available or if equipment can be obtained through a third party rental agreement.
- Estimate/Bid Preparation – ESS prepares and provides work estimates/bids to customers.
- Work Approval – ESS ensures internal accounts are established to capture costs for tracking and billing.
- Customer Interface – ESS and customers interface throughout the job from start to completion, including maintenance and inspections.
- Work Closure/Equipment Un-Assignment – Closure of work and return of equipment.

The SPP defined customers as the TVA organizations obtaining services from ESS. This included (1) TVA organizations obtaining services directly or (2) contractors performing work for the TVA organizations. The SPP provided that all equipment, whether provided directly to TVA or to a contractor, is tracked and billed by ESS to a TVA project number. For FY 2019, ESS reported heavy equipment usage of about \$51.7 million including at least \$17 million by 20 contractors.<sup>1</sup>

This audit was scheduled as part of our annual audit plan due to the potential for contractors to overbill TVA when they use ESS loaned equipment.

### **OBJECTIVE, SCOPE, AND METHODOLOGY**

Our audit objective was to determine if TVA is effectively managing contractors' use of equipment provided by TVA's ESS. The scope of our audit included contractors that use ESS equipment and then reimburse TVA for the costs. To achieve our audit objective, we:

- Reviewed applicable policies and procedures to identify requirements for contractors obtaining equipment from TVA.
- Interviewed TVA's ESS personnel to understand the process for providing equipment to contractors.
- Interviewed 12 TVA construction managers to understand the process used to manage the contractors' use of equipment.
- Reviewed contracts, invoices, and results from recent audits to determine the process used by contractors to bill TVA for ESS equipment and reimburse TVA for the costs.

We did not identify internal controls significant to our audit objective; therefore, internal controls were not tested as part of this audit. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

### **FINDINGS AND RECOMMENDATIONS**

We determined TVA was not effectively managing contractors' use of equipment provided by TVA's ESS. As previously noted, for FY 2019, ESS reported heavy equipment usage of at least \$17 million by 20 contractors. This amount included:

- \$8.0 million of equipment provided to 7 contractors that perform work using cost reimbursable payment terms that do not bill TVA for the ESS equipment.

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<sup>1</sup> The \$17 million is an estimate provided by ESS based on a contractor name as the assignee. However, contractor usage could be higher because the \$17 million does not include equipment obtained by (1) contractor employees using a TVA identification number and (2) TVA construction managers for a contractor.

- \$9.0 million of equipment provided to 13 contractors that perform work using (1) cost reimbursable payment terms that bill TVA for the ESS equipment and subsequently provide credits or refunds to TVA and (2) fixed price/fixed unit rate payment terms that include equipment costs in their fixed price to TVA and subsequently provide credits or refunds to TVA.

In summary, we determined the 7 contractors that did not bill TVA directly for ESS equipment were utilizing TVA's ESS equipment in accordance with the terms of their contracts with TVA and the SPP. However, the contractors that bill and subsequently reimburse TVA for ESS equipment on cost reimbursable projects are not complying with contractual provisions. Additionally, TVA does not have a process to determine if it is cost beneficial to provide ESS equipment on fixed price/fixed unit rate projects or to ensure TVA receives the appropriate reductions for ESS equipment used on fixed price/fixed unit rate projects.

Cost Reimbursable Projects – ESS provides equipment to certain contractors on TVA projects that have cost reimbursable payment terms that bill TVA for the ESS equipment and subsequently provide credits or refunds to TVA. However, the TVA contracts generally included language that provided for reimbursement of the contractor's actual cost of equipment. As provided in ESS-SPP-07.002, ESS bills equipment costs internally to a TVA project number and does not bill any costs to the contractor. Therefore, the contractors would not be incurring any costs and should not be billing TVA for ESS equipment. Although the contractors subsequently provide credits or refunds to TVA based on a report provided by TVA's construction managers, we determined the credits are based on TVA's internal charges for the ESS equipment and may not correspond to the equipment costs billed to TVA by the contractor. For example, in a recent audit, we found one contractor was billing TVA for ESS equipment using its internal equipment rates which included markup and fee. Due to the process used by this contractor to reimburse TVA for ESS equipment, we could not determine what costs the contractor reimbursed to TVA. In another audit, we found a contractor billed TVA over \$87,000 for ESS equipment, including markup and fee, but only provided reimbursement for about \$32,000.

Fixed price/fixed unit rate projects – ESS provides equipment to certain contractors on TVA projects that have fixed price or fixed unit rate payment terms. However, TVA does not have a process to determine if it is cost beneficial to provide the equipment on fixed price/fixed unit rate projects or to ensure that TVA is receiving appropriate reductions for the ESS equipment. Although the contractors subsequently provide credits or refunds to TVA based on a report provided by TVA's construction managers, we determined the credits are based on TVA's internal charges for the ESS equipment and may not correspond to the equipment costs included in the contractor's fixed price/fixed unit rate.

TVA's current process could result in (1) TVA not saving any costs on fixed price/fixed unit rate projects and (2) the contractors receiving excessive profit on the projects. As an example, assume a contractor's fixed price includes \$500,000 in equipment costs plus an additional \$50,000 in markup and profit. However, ESS provided the equipment and the contractor subsequently provided a \$250,000 credit based on TVA's internal charge for the equipment. In this example, TVA's project costs would still be \$550,000 (\$250,000 for TVA's internal equipment charge, plus the contractor's fixed price of \$550,000 for

equipment costs including markup and profit, less the \$250,000 ESS credit provided by the contractor), and the contractor received additional profit of \$300,000 (\$550,000 for the fixed price equipment less the \$250,000 ESS credit).

ESS-SPP-07.002 did not establish guidelines or processes for TVA to manage contractors that are utilizing ESS equipment and reimbursing TVA for the costs. During our audit, TVA management realized the current SPP did not provide this guidance, and TVA's ESS group formed a team to develop a new SPP.<sup>2</sup> The purpose of the new SPP was to provide guidelines to ensure TVA is reimbursed appropriately and within contract compliance. However, the SPP does not provide guidance on determining if it is cost beneficial for ESS to provide equipment to contractors performing fixed price/fixed unit rate projects or to ensure that TVA is receiving appropriate reductions on fixed prices/fixed unit rates.

To determine the cost benefits of providing ESS equipment to contractors, TVA should request a breakout of equipment costs and associated markups and profit included in the contractor's fixed price/fixed unit rates prior to providing the equipment. If TVA determines it is cost beneficial for ESS to provide the equipment, the contractor's fixed price/fixed unit rates should be reduced by the contractor's equipment costs and associated markups and profit that were included in their fixed price/fixed unit rates.

## **RECOMMENDATIONS**

We recommend TVA management:

1. Discontinue allowing contractors to bill TVA for ESS equipment on cost reimbursable tasks (i.e., comply with the contract).
2. Implement a process to determine the cost effectiveness of providing ESS equipment on fixed price/fixed unit rate projects prior to providing the equipment and ensure appropriate reductions are made to the fixed price/fixed unit rates if ESS equipment is provided.

**TVA Management's Comments** – In response to our draft audit report, TVA management agreed with our recommendations and plans to:

1. Implement a standardized process that better ensures TVA's contractors do not bill TVA for ESS equipment on cost reimbursable tasks.
2. Request contractor pricing on future fixed price/fixed unit rate projects that includes using ESS equipment and not using it. With both prices, TVA can easily evaluate the cost effectiveness of providing ESS equipment on these projects.

However, TVA management disagreed with how the overall conclusion was worded in the report and stated that it incorrectly suggests that TVA is completely ineffective in managing contractors' use of ESS equipment, which is not the case. TVA management

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<sup>2</sup> TVA, General Construction Projects and Services SPP 07.1, *Civil Projects and CCP [Coal Combustion Product]/ESS Management Equipment Rental and Utilization for Contractors*, June 16, 2020.

suggested an alternative sentence. See the Appendix for TVA management's complete response.

**Auditor's Response** – As previously discussed in the report's findings, some contractors were utilizing TVA's ESS equipment in accordance with the terms of their contracts with TVA and the SPP. However, overall, TVA has opportunities to improve its management of contractors' use of equipment provided by ESS.

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This report is for your review and final action. Your written comments, which addressed your management decision and actions planned or taken, have been included in the report. Please notify us when final action is complete. In accordance with the Inspector General Act of 1978, as amended, the Office of the Inspector General is required to report to Congress semiannually regarding audits that remain unresolved after 6 months from the date of report issuance.

If you have any questions or wish to discuss our observations, please contact Karen K. McGrew, Audit Manager, at (865) 633-7354 or Chad B. Bube, Director, Contract Audits, at (865) 633-7334. We appreciate the courtesy and cooperation received from your staff during the audit.



David P. Wheeler  
Assistant Inspector General  
(Audits and Evaluations)

KKM:KDS

cc: TVA Board of Directors  
Laura J. Campbell  
Alan D. Casaday  
Harvey R. Collins III  
James R. Dalrymple  
Robert M. Deacy Sr.  
Jennifer A. Johnson  
Jeffrey J. Lyash  
Justin C. Maierhofer  
Jill M. Matthews  
Sherry A. Quirk  
Ronald R. Sanders II  
Michael D. Skaggs  
Jarom T. Smartt  
George D. Smith  
Gabriel A. Trotter  
Kay W. Whittenburg  
Heather S. Young  
OIG File No. 2020-15724



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

September 11, 2020

David P. Wheeler

RESPONSE TO DRAFT AUDIT 2020-15724 - CONTRACTOR'S USE OF EQUIPMENT  
PROVIDED BY TVA'S EQUIPMENT SUPPORT SERVICES (ESS)

Reference: Draft OIG Audit Dated August 14, 2020

Civil Projects, ESS/CCP appreciates the opportunity to review the above referenced draft audit and our responses are set forth immediately below:

**OIG Recommendation:** TVA's Civil Projects, ESS/CCP should discontinue allowing contractors to bill TVA for ESS equipment on cost reimbursable tasks.

**TVA Response:** Civil Projects, ESS/CCP recognizes that the current process of credits/debits is administratively burdensome and agrees with the OIG's recommendation to implement a standardize process that better ensures TVA's contractors do not bill TVA for ESS equipment on cost reimbursable tasks.

**OIG Recommendation:** Implement a process to determine the cost effectiveness of providing ESS equipment on fixed price/fixed unit rate projects prior to providing the equipment and ensure appropriate reductions are made to the fixed price/fixed unit if ESS equipment is provided.

**TVA Response:** Civil Projects, ESS/CCP agrees that a process improvement is needed to easily allow TVA to determine the cost effectiveness of providing ESS equipment on fixed price/fixed unit rate projects. Civil Projects, ESS/CCP will work with the TVA Supply Chain organization so that on future fixed price or fixed unit rate CCR projects, TVA requests contractor pricing that includes using ESS equipment, and not using it. With both prices in hand, TVA can easily evaluate the cost effectiveness of providing ESS equipment on these projects.

David P. Wheeler  
Page 2  
September 11, 2020

**OIG Finding:** The OIG determined "TVA was not effectively managing contractor's use of equipment provided by TVA's ESS."

**TVA Response:** Civil Projects, ESS/CCP believes this OIG finding, as stated, incorrectly suggests the Civil Projects, ESS/CCP organization is *completely ineffective* in managing our contractors' use of ESS equipment, which is simply not the case. It would be much more accurate to say the OIG *identified opportunities for TVA to optimize contractors' use of TVA equipment provided by TVA's ESS.*

Additionally, TVA's Heavy Equipment Division was formed in 1988 (changed to Equipment Support Services - ESS in 2009) to address high costs associated with decentralized heavy equipment management along with inadequate equipment regulatory compliance. A total of 63 fatalities were recorded from 1933 through 1986 related to mobile crane accidents with 0 recorded from 1988 to date. Currently, ESS in coordination with Supply Chain, utilizes leveraged GSA pricing for purchases and negotiated rental contracts to provide low cost comprehensive heavy equipment services for TVA activities across the service area. ESS supports the mission of the TVA Act by delivering continued value across TVA by ensuring heavy equipment reliability, competitive equipment rates, and industry leading customer service. This business model has proven to generate continued cost savings for TVA.

We would like to thank the OIG audit team for their report and dedication to assist Civil Projects ESS/CCP with continuous improvements regarding project and contractor management along with the opportunity to enhance internal controls for contractors' use of TVA equipment. If you have further questions, please feel free to contact me.



Scott Turnbow  
Vice President  
*Civil Projects, Equipment Support Services & CCP Management*

MST:HRC  
Enclosure  
cc (Enclosure):      See Page 3

David P. Wheeler  
Page 3  
September 11, 2020

Laura J. Campbell  
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Jarom T. Smartt  
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