



REVIEW OF
Duke Energy Florida, LLC's
Storm Cost Management and
Payment Processing Practices
for Hurricane Michael

July 2020

By Authority of
The Florida Public Service Commission
Office of Auditing and Performance Analysis
Performance Analysis Section

REVIEW OF

**Duke Energy Florida, LLC's
Storm Cost Management and
Payment Processing Practices
For Hurricane Michael**

Jerry Hallenstein
Senior Analyst
Project Manager

Victor Cordiano
Engineering Specialist II

July 2020

**By Authority of
The Florida Public Service Commission
Office of Auditing and Performance Analysis
Performance Analysis Section**

PA-19-09-003

TABLE OF CONTENTS

CHAPTER	Page
1.0 EXECUTIVE SUMMARY	
1.1 Purpose and Objectives.....	1
1.2 Scope and Methodology.....	1
1.3 Observations.....	2
2.0 BACKGROUND AND PERSPECTIVE	
2.1 Impact of Hurricane Michael.....	5
2.2 2019 Storm Settlement Agreement.....	6
2.3 Vendor Invoicing Procedures.....	6
2.4 DEF Invoice Review and Payment Processes.....	7
3.0 Commission Audit Staff Analysis	
3.1 Review of Invoicing and Contractor Management Controls.....	9
3.2 Invoice Sample Review.....	10
3.3 Invoice Sample Evaluation Criteria.....	10
3.4 Commission Audit Staff Observations.....	12

TABLE OF EXHIBITS

EXHIBIT		Page
1.	Duke Energy Florida, LLC Hurricane Michael Recoverable Incremental Storm Costs 2019.....	5

1.0 Executive Summary

1.1 Purpose and Objectives

The Florida Public Service Commission's (FPSC or Commission) Office of Auditing and Performance Analysis initiated this operational audit at the request of the Commission's Division of Accounting and Finance. The purpose of the audit was to review and examine processes and internal controls in use by Duke Energy Florida, LLC (DEF or Company). Commission audit staff assessed DEF's compliance with its procedures and internal controls and their effectiveness in reviewing, processing, and paying invoices associated with Hurricane Michael.

The objectives of this audit were met by examining and assessing the adequacy of the processes for:

- ◆ Vendor storm cost invoice preparation and submission
- ◆ Review and approval of vendor storm cost invoices
- ◆ Invoice dispute, correction, and resolution
- ◆ Staffing and training of payment processing personnel
- ◆ Consistency of invoice with contract terms and conditions
- ◆ Overrides and exceptions to procedures and contract terms
- ◆ Operating systems supporting invoice payment processing
- ◆ Work planning and deployment of contractors and mutual assistance resources
- ◆ Oversight and work monitoring of contractors and mutual assistance resources
- ◆ Recordkeeping of contractor and mutual assistance work hours and costs
- ◆ Self-assessment and implementation of lessons learned

1.2 Scope and Methodology

This audit was conducted in support of final determination of DEF's recoverable incremental costs for Hurricane Michael and Tropical Storm Alberto in FPSC Docket No. 20190110-EI. Hurricane Michael storm costs represented 99.99 percent of the costs DEF is seeking to recover. While the processes for tracking, recording, and accounting for these storms costs were similar, the scope of the review focused on the organizations within DEF responsible for handling Hurricane Michael storm costs. Commission audit staff reviewed the processes by which DEF incurred these costs, processed the resulting invoices, and paid vendors.

As authorized by Sections 350.117(2) and (3), Florida Statutes, management audits are conducted by staff to assess utility performance and the adequacy of operations and controls:

- (2) The commission may perform management and operation audits of any regulated company. The commission may consider the results of such audits in establishing rates; however, the company shall not be denied due process as a result of the use of any such management or operation audit.

(3) As used in this section, “management and operation audit” means an appraisal, by a public accountant or other professional person, of management performance, including a testing of adherence to governing policy and profit capability; adequacy of operating controls and operating procedures; and relations with employees, customers, the trade, and the public generally.

Commission audit staff’s standard of review for internal controls is primarily the Institute of Internal Auditors’ *Standards for the Professional Practice of Internal Auditing* and the *Internal Control - Integrated Framework* developed by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission. Internal controls assessments focus on the COSO framework’s five key elements of internal control: control environment, risk assessment, control activities, information and communication, and monitoring. Commission audit staff’s work is performed in compliance with Institute of Internal Auditors Performance Standards 2000 through 2500.

The information in this audit report was gathered through responses to document requests and on-site interviews with key employees responsible for processing, verifying, and approving invoices paid for Hurricane Michael. Specific information collected and reviewed from DEF included:

- ◆ Policies and procedures used for procuring labor, services and materials, and the review and approval of storm cost invoices
- ◆ Governing documents under which Hurricane Michael storm costs were incurred (e.g., master service agreements, contracts, purchase orders, vendor guidelines, and instructions)
- ◆ Analysis of a statistical sample of Hurricane Michael storm cost vendor invoices, including all supporting documentation used for processing and paying contractor costs, logistics, materials, and fuel
- ◆ Internal and external reviews or audits performed to verify Hurricane Michael costs
- ◆ Documents filed in FPSC Docket Nos. 20170272-EI and 20190110-EI, including DEF’s 2019 Settlement Agreement approved by the Commission by Order No. PSC-2019-0232-AS-EI, issued on June 13, 2019

1.3 Observations

Commission audit staff developed the following observations regarding key areas of operations related to storm cost controls and payment:

1.3.1 Invoice Processing and Payment Procedures

- Observation 1** Commission audit staff believes that DEF's Hurricane Michael invoice requirements for transmission and distribution contractors provided adequate direction, and the newly implemented processes and procedures adopted in DEF's 2019 Settlement Agreement will further clarify and assist in the efficient processing of invoices.
- Observation 2** Commission audit staff believes DEF's Hurricane Michael invoice checking, correction, and approval processes were effective.
- Observation 3** Commission audit staff believes DEF provided adequate staffing and expertise for invoice and payment processing, and oversight to provide acceptable accuracy and efficiency.

1.3.2 Vendor Deployment and Management

- Observation 4** Commission audit staff notes that DEF's efforts to limit standby time may reduce costs, but the efforts could also be advanced by executing contracts on more favorable terms prior to the storm season.
- Observation 5** In response to DEF's 2019 Settlement Agreement, the Company has clarified supplier agreements to remove minimum hours and implemented procedures to minimize double-time pay. Commission audit staff notes that DEF still has no written procedure for distribution operations to prohibit minimum hours and should address this remaining issue.
- Observation 6** In response to DEF's 2019 Settlement Agreement for the 2020 storm season, the Company is implementing additional work monitoring and recordkeeping process improvements to track all vendor crews with Global Positioning System (GPS). An electronic interface for timesheet review and approval will be fully operational in 2021. Commission audit staff believes these changes may reduce time recording and billing errors, and enhance DEF's monitoring of vendor performance.
- Observation 7** In response to DEF's 2019 Settlement Agreement for the 2020 storm season, DEF will direct its vendors to use centralized Company-provided lodging, meal, and fueling services, where practicable. Also, DEF will not reimburse vendors for expenses that do not comply with this policy. Commission audit staff believes DEF should also require documentation of approval for non-company provided services in efforts to reduce logistics costs.

Observation 8 In response to DEF’s 2019 Settlement Agreement, DEF made efforts during the Fall 2019 Southeastern Electric Exchange member meeting to bring forward issues related to the process improvements; however, other group members did not accept these process changes. Commission audit staff notes additional efforts would be required to reach agreement among members.

1.3.3 Lessons-Learned Assessment and Implementation of Improvements

Observation 9 To reassess planning and restoration efforts, DEF incorporates a lessons-learned process in its *Transmission and Distribution System Storm Operational Plans*. The process requires follow-up action plans, individual assignments, and due dates. Commission audit staff commends formalizing the process for identifying lessons learned.

2.0 Background and Perspective

2.1 Impact of Hurricane Michael

After Hurricane Michael made landfall on October 10, 2018, necessary recovery work included a complete rebuild of a 34-mile long transmission line, replacement of more than 773 transformers, 1,970 distribution poles, and repair or replacement of 150 miles of distribution feeders and laterals. The Company also restored 20 substations and 77 transmission circuits.

To complete its restoration work, DEF mobilized approximately 5,100 contractor and employee resources. Specifically, DEF acquired a significant portion of those resources from approximately 53 line and vegetation management vendors: 28 supported distribution restoration, while 25 were dedicated to transmission.

On May 19, 2020, in FPSC Docket No. 20190110-EI, DEF filed an amendment to its Petition for approval to recover \$188 million in incremental storm costs as shown in **Exhibit 1**. Costs are broken down into three Company operations for financial reporting purposes as well as aiding in the determination of costs that are not recoverable based on the Incremental Cost and Capitalization Approach (ICCA) methodology. These three operations include transmission, distribution, and customer service.

Duke Energy Florida, LLC				
Hurricane Michael Recoverable Incremental Storm Costs				
2019				
Function	Incremental Storm Costs			
	(\$ thousands)			
	Transmission	Distribution	Customer Service	Total
Base Payroll	\$743	\$498	\$26	\$1,267
Overtime Payroll	\$1,442	\$2,952	\$119	\$4,514
Labor Burden/Incentives	\$1,731	\$1,574	\$19	\$3,323
Overhead Allocations	\$11,605	\$1,532	\$3	\$13,141
Employee Expenses	\$5,440	\$5,728	\$41	\$11,209
Outside Contractor Costs	\$108,617	\$141,326	\$145	\$250,088
Material & Supplies	\$13,142	\$13,911	\$8	\$27,061
Internal Fleet	\$258	\$37	\$0	\$295
Other	\$(3)	\$0	\$0	\$(3)
Total	\$142,976	\$167,557	\$361	\$310,894
Less: Capital Costs	\$92,515	\$14,444	\$0	\$106,959
Less: Jurisdictional Factor¹	\$15,036	\$672	\$0	\$15,708
Total Incremental Costs	\$35,425	\$152,441	\$361	\$188,227

Exhibit 1

Source: DEF Witness Morris Testimony, Updated Exhibit No. TM-2.

¹Jurisdictional factors are applied to remove the portion of costs attributed to wholesale services.

2.2 2019 Storm Settlement Agreement

Per FPSC Order No. PSC-2019-0232-AS-EI, issued in Docket No. 20170272-EI, on June 13, 2019, the Commission approved a Settlement Agreement regarding the amount of DEF's recoverable storm costs related to Hurricanes Irma and Nate. The Agreement set forth an extensive set of financial reporting and storm restoration process and procedure improvements for DEF to implement and follow during future storms. While Hurricane Michael restoration efforts in 2018 were underway prior to adoption of the Settlement Agreement, DEF recognized the need to establish new restoration processes and procedures listed below. According to DEF, the Company is implementing these requirements in 2020.

- ◆ Contracting policy to increase the number of non-embedded crews available for work
- ◆ Policy requiring start of billing at the point crews make-ready and mobilize after acquisition
- ◆ Policy to limit compensation for travel time to the actual time traveled, with no minimum hours
- ◆ Pace of travel guidance policy for distribution vendor crews
- ◆ Policy providing GPS tracking capability for vendor crews
- ◆ Policy prohibiting vendor poaching
- ◆ Policy to conduct and document review of vendor daily timesheets
- ◆ Policy prohibiting guaranteed daily minimum vendor labor hours and limiting work day to 16 hours with 8-hour rest period
- ◆ Policy requiring use of Company-provided meals, and fueling service
- ◆ Efforts to advocate for consistency between DEF and SEE/EEI mutual aid policies

Per the Agreement, for each named storm, DEF agreed to provide organized invoices and supporting documentation to accommodate the cost review process. Additionally, the Agreement defines circumstances under which an independent auditor would be engaged to assess storm costs and processes.

2.3 Vendor Invoicing Procedures

DEF develops separate invoicing and payment processing instructions for its transmission and distribution vendors. The instructions serve as a guide to facilitate timely invoice review, processing, and payment.

Transmission Vendor Invoicing Procedures

Prior to Hurricane Michael, guidance on invoicing procedures was included in each individual contract. While invoicing instructions for each major storm event are similar, they are updated to reflect specific requirements to aid in timely processing and payment, such as terms regarding due dates. For example, during Hurricane Michael a process improvement included the development and use of the Contract Time Report (CTR). CTR is a worksheet template that captures items such as work order tasks, service line, and accounting codes.

Distribution Vendor Invoicing Procedures

Prior to Hurricane Michael making landfall, DEF's Central Invoicing Leadership Team developed invoicing guidance instructions (*Customer Delivery (Distribution) Contractor Billing Communication – Florida Support for Hurricane Michael*) for vendors performing restoration work. This includes line, vegetation, damage assessment, and logistic vendors. While invoicing instructions for each major storm event are similar, they are updated to reflect specific requirements to aid in timely processing and payment, such as terms regarding partial payments and due dates.

To adequately process invoices as accurately and timely as possible, DEF's invoice instructions require vendors to provide timesheets indicating employees, job class, equipment used, and associated hours and rates. Additional contractor supporting documentation should include employee rosters, mileage and mileage rate for mobilization and demobilization, and receipts for meals, hotels, materials, and fuel that were not provided by DEF.

According to DEF, any temporary overrides of procedures and contract terms during Hurricane Michael would be handled on a case-by-case basis depending on the circumstances.

2.4 DEF Invoice Review and Payment Processes

Hurricane Michael's restoration and rebuild efforts resulted in a total of 446 invoices submitted for distribution activities and 1,060 invoices submitted for transmission activities to DEF for payment. The processing of these invoices was handled separately by DEF's distribution and transmission personnel and respective systems.

2.4.1 Transmission Contractor Invoices

To process transmission repair invoices accurately and timely, a contractor must have an existing Master Service Agreement (MSA) with a current rate schedule uploaded into DEF's Maximo system. Maximo is an asset management system that can manage workflows from generating a work order to supporting centralized invoicing. Contractors are required to submit invoice supporting backup documentation along with a CTR. The use of Maximo to process transmission invoices began in February 2017.

Upon receipt of supporting documentation and a completed CTR, Maximo will log, validate, and perform system checks for invoice errors, including duplication of invoice numbers and comparison of billed hours and equipment rates to contract rates. Once the invoice is processed

free of errors in Maximo and the supporting documentation is verified by a DEF invoice processor, the invoice is automatically sent to the Company Accounts Payable System (CAPS) to trigger final approval and payment by DEF leadership according to their designated dollar limits. DEF states that Maximo processed a total of 186 transmission contractor invoices associated with Hurricane Michael, accounting for approximately \$101 million, or 93 percent of total transmission contractor costs.

If a MSA and current rate schedule for a transmission contractor does not exist in Maximo, then DEF's invoice processors have to manually review invoice and supporting documentation for validation. Upon approval, all documents are sent to CAPS for payment. Examples include off-system line clearing invoices and special projects involving purchase orders that require rigorous review. According to DEF, the total amount of these non-MSA Hurricane Michael invoices processed and paid without using the Maximo system was about \$7.6 million, or 7 percent of total transmission costs.

2.4.2 Distribution Contractor Invoices

Due to the volume of Hurricane Michael invoices associated with distribution line work, vegetation management, and damage assessment restoration, DEF engaged an accounts payable consulting firm to review and process invoices.

Although DEF began using Maximo in November 2017 to process embedded distribution contractor invoices during blue-sky (normal) conditions, it did not use Maximo for processing invoices for Hurricane Michael. According to DEF, this change simplified invoice processing by the consultant to a single methodology for both embedded and non-embedded contractors.

The consultant is experienced in performing invoice auditing work on behalf of the utility industry and its review process is similar to DEF's internal procedures. Unlike the automated means of validating and processing transmission invoices in Maximo, all the distribution repair invoices processed by the consultant required multiple levels of manual tracking and review prior to DEF approving payment in CAPS.

A consultant analyst used a worksheet template to check contractor employee rosters, and to verify daily labor and equipment hours and rates reported in timesheets to labor and equipment hours and rates specified in contracts. The analyst's work was checked by a reviewer prior to forwarding the invoice to DEF for payment. For discrepancies found, a dispute worksheet was created for resolution. According to DEF, the consultant reviewed and processed 383 distribution contractor invoices, accounting for \$139 million, or 98 percent of total distribution contractor costs.

For confirmed billing errors, DEF required a correction if the variance from the original invoice and the as-audited amount was \$1,000 or more and was equal to or greater than one percent of the original invoice amount. Also, the Company required a correction for any variance over \$10,000, even if it represented less than one percent of the total invoice amount.

3.0 Commission Audit Staff Analysis

The overall focus of storm cost recovery dockets is to ensure that only prudently-incurred costs are reimbursed to utilities by customers. Of necessity, charges billed by vendors and contractors must be examined to ensure that the proper amounts were paid.

Commission audit staff notes that it is also important to ensure that the costs were incurred under appropriate oversight and controls provided by the utility. A systemic lack of effective contractor management can inflate costs well beyond the impact of even numerous smaller invoicing or payment processing errors.

At the same time, during storm recovery efforts, Commission audit staff recognizes the tension between the utility's urgent need to efficiently marshal resources while simultaneously prioritizing rapid restoration of service to customers. It is unavoidable that these two needs compete, posing difficult choices for Florida investor-owned utilities.

Commission audit staff notes that process improvements agreed to in recent storm cost recovery docket settlements have appropriately focused on contractor and work management issues as well as invoice payment processes themselves. In any event, the cumulative impact of lessons learned, agreements to implement best practices to control costs, and creative initiatives by the utilities should yield benefits to ratepayers and shareholders through reduced cost impacts of future storms and improved restoration efficiency. By addressing these issues, the Commission and Florida utilities have made beneficial and innovative changes that challenge embedded industry practices.

3.1 Review of Invoicing and Contractor Management Controls

Commission audit staff closely reviewed the records of FPSC Docket No. 20190110-EI and other recent storm cost recovery cases. This allowed the audit team to develop perspective on utility practices and the issues that arise regarding storm costs.

Audit staff issued numerous data requests to obtain information regarding DEF's Hurricane Michael restoration work management and invoice processing practices. These requests yielded copies of written procedures, descriptions of process internal controls, copies of paid invoices, and associated supporting documentation.

On-site interviews with key DEF management personnel were used to document how the restoration work and associated storm recovery costs were managed. This provided a foundational understanding of how costs were incurred, how vendor work was tracked, and how payment processing was executed.

Throughout the review, Commission audit staff sought to identify differences between practices employed during Hurricanes Irma and Nate in 2017 and those in use during 2018 for Hurricane Michael restoration work. Audit staff gathered information on Company post-mortem analysis

and lessons-learned, and documented DEF's process improvements either implemented to date, or under consideration for future implementation.

Data requests and teleconferences with Company personnel continued as Commission audit staff began detailed examination of invoices and Company documentation of costs incurred.

3.2 Invoice Sample Review

To observe and verify the processes and controls described by the Company in interviews and data request responses, Commission audit staff used a sampling approach. This detailed examination of vendor invoices included the following tasks:

- ◆ Testing adherence to procedures
- ◆ Assessing adequacy of documentation used during invoice review and payment
- ◆ Evaluating DEF's success in preventing and correcting processing errors
- ◆ Assessing adequacy of internal control protections

To maximize coverage of DEF's storm cost dollars, audit staff selected its sample of vendor invoices from DEF's three major storm restoration cost categories: contractor costs (including logistics), employee expenses, and materials and supplies. Together, these three categories account for nearly 92% of DEF's \$316 million of storm costs prior to removal of expenses for capitalization that appears on line 13 of DEF's Witness Morris' updated Exhibit No. TM-2, page 1 of 2, submitted in Docket No. 20190110-EI, on May 19, 2020.

To provide focus on more complex and impactful invoices, Commission audit staff's sample selection excluded all invoices of \$25,000 or less from the contractor cost category. For the employee expenses and material and supplies cost categories, audit staff excluded invoices of \$7,500 or less.

After applying the invoice thresholds, audit staff determined the necessary sample size. Applying parameters of a 95% confidence level and an error rate of plus-or-minus 10%, a sample size of 84 invoices was calculated. Commission audit staff selected the sample invoices using a random number generator. DEF provided each selected invoice and the supporting documentation used in processing and payment.

3.3 Invoice Sample Evaluation Criteria

To evaluate the sample invoices, Commission audit staff developed a set of attributes and checkpoints to assess process adequacy in the two key areas: adherence to Company procedures and adequacy of internal controls. Overall, the attributes considered encompassed general best business practices employed in purchasing and project management.

Additional evaluation of the sample invoices was performed considering the storm cost best practices included in Settlement Agreements² between three IOUs and the Office of Public Counsel during 2019. This gave perspective regarding the sufficiency of processes used during Hurricane Michael, and also an indication of the potential value of implementing these best practices.

3.3.1 Compliance with DEF Procedures

Commission audit staff's evaluation of invoice processing accuracy included verification of adherence to DEF's applicable procedures. During Hurricane Michael, DEF's *Customer Deliver (Distribution) Contractor Billing Communication – Florida Support for Hurricane Michael* procedures governed this process. They laid out basic invoicing and payment processing, including invoice package content requirements and invoice verification process responsibilities.

In its review of sample invoices, Commission audit staff verified that necessary supporting documentation was present, and reviewed the package for evidence of compliance with DEF's procedure. Where audit staff noted apparent exceptions, these were discussed with DEF personnel and resolved. Generally, minor additions to the audit trail or explanations of transaction details removed all concerns.

Commission audit staff also verified compliance with DEF's invoice verification process requirements and independently tested whether invoiced rates for hourly labor and equipment rentals matched current contract rates and terms. Timesheet records were reviewed for proper approval by DEF and verification for the work performed by contractors. Similarly, evidence of supervisory approvals of the verification process was examined. And lastly, dual-control protection for documenting payment approval and issuing final payment were verified.

Where variances were discovered between invoiced dollar amounts and amounts included in supporting documents, Commission audit staff reconciled the differences with DEF.

3.3.2 Adequacy of Internal Controls

Beyond verifying that invoice processing comported with the Company's existing procedures, Commission audit staff also sought to assess the adequacy of process internal controls.

Commission audit staff believes internal controls must secure each step in purchasing to prevent payment errors or fraud. From the moment mutual aid labor is engaged or materials are ordered, DEF must complete several verifications. DEF states contractor work must be verified by a DEF employee assigned to review each contractor team. Documentation reviewed indicates these controls appear to have functioned properly.

Prior storm cost recovery dockets demonstrate that vendor invoicing deficiencies and errors are problematic, particularly during the extraordinary challenges of storm recovery work.

²In re: *Petition for recovery of costs associated with named tropical storms during the 2015, 2016, and 2017 hurricane seasons and replenishment of storm reserve subject to final true-up, Tampa Electric Company*, Docket No. 20170271-EI; In re: *Application for limited proceeding for recovery of incremental storm restoration costs related to Hurricanes Irma and Nate, by Duke Energy Florida, LLC.*, Docket No. 20170272-EI; In re: *Evaluation of storm restoration costs for Florida Power & Light Company related to Hurricane Irma*, Docket No. 20180049-EI.

Commission audit staff believes that vendor training on invoicing procedures can greatly improve invoicing accuracy and therefore prevent payment errors.

DEF's invoice review includes checking accuracy of invoiced labor hours, materials quantities, equipment charges, fuel costs, and lodging/meal expenses. Such controls include preparation of a spreadsheet to check computations within invoices.

Supporting documentation for each invoice sampled indicated invoice processing included comparison of invoiced charges to applicable rates and other governing contract specifications. Contract provisions may direct the applicability of overtime labor rates, specify limits on per diem and lodging costs, and address dispute resolution. Audit staff's sample review raised no concerns regarding adequacy of contract protections and compliance with terms and conditions.

Additionally, controls over the payment function after invoice review must guard against fraud and errors. Final approval for payment requires multiple reviews and appears to be executed in keeping with this procedure.

3.3.3 Settlement Agreement Storm Cost Process Improvements

As previously noted, in June 2019, the Commission approved a Settlement Agreement between DEF and the Office of Public Counsel regarding the storm cost recovery for Hurricanes Irma and Nate. Beyond the particular dollar amounts to be recovered, this settlement included agreement for DEF to implement "Storm Restoration Cost Process Improvements." Most pertain to practices intended to constrain storm costs and improve recovery work efficiency.

In its evaluation, Commission audit staff compared DEF's processes in place during Hurricane Michael to the settlement process improvements. This approach sought to determine the existence of an equivalent practice or control at the time Michael struck, and also to highlight the existing gap the practice improvements should fill.

3.4 Commission Audit Staff Observations

Based upon its review of processes, procedures, internal controls, and sample invoices, Commission audit staff developed the following observations regarding storm cost controls and payment operations.

3.4.1 Invoice Processing and Payment Procedures

Vendor Invoicing Instructions

Vendors relied upon invoice guidance instructions developed by DEF specifically for Hurricane Michael. These instructions indicate the documentation needed from contractors to enable DEF to process and pay invoices timely and accurately. Examples of required supporting documentation include timesheets with labor and equipment hours and rates, and receipts for meals, hotels, fuel, etc.

Observation 1: Commission audit staff believes that DEF's Hurricane Michael invoice requirements for transmission and distribution contractors provided adequate direction, and the newly implemented processes and procedures adopted in DEF's 2019 Settlement Agreement will further clarify and assist in the efficient processing of invoices.

Invoice Checking, Correction, and Approval Procedures

For Hurricane Michael distribution contractor invoices, DEF used an accounts payable consulting firm to validate the accuracy of invoices and submit them for DEF's approval and payment. The consultant used a multi-layered review process that included the use of an audit worksheet template to check daily hours billed against hours reported on timesheets, and performed mathematical calculations of labor and equipment rates and units billed. The consultant analyst's work was checked by a reviewer prior to forwarding to DEF. For any discrepancies found, a dispute worksheet was created for resolution.

DEF required a correction if the variance from the original distribution contractor invoice and the audited invoice was \$1,000 or more and was equal to or greater than one percent of the original invoice amount. Corrections were also required for any variance over \$10,000, regardless of whether it represents less than one percent of the total invoice amount.

For transmission contractor invoices, a multi-layered review process is also embedded within DEF's Maximo invoice processing system. The Maximo system automatically checks for errors and either accepts invoices for further processing or rejects for error resolution. Rejected invoices may include failure to provide required supporting documentation, mathematical errors, or inconsistency with database inputs such as labor rates.

Observation 2: Commission audit staff believes DEF's Hurricane Michael invoice checking, correction, and approval processes were effective.

Personnel Staffing and Training

All contractor logistics invoices were processed by DEF employees and contingent workers who normally process invoices during blue-sky or storm events. To handle the sheer volume of distribution line, vegetation, and other contractor invoices, DEF engaged an accounts payable consulting firm post Hurricane Michael landfall. The consultant was also experienced in performing invoice auditing work on behalf of the utility industry. The consultant's invoice auditing process is similar to DEF's internal process with multiple levels of review required prior to approving invoices for payment. As a result, only minimal training of the consultant's personnel was necessary.

DEF's use of a consulting firm provided substantial additional capacity to review and validate invoices prior to final approval and payment. The overall invoice review process functioned appropriately, detecting and bringing invoicing errors to the attention of management.

Observation 3: Commission audit staff believes DEF provided adequate staffing and expertise for invoice and payment processing, and oversight to provide acceptable accuracy and efficiency.

3.4.2 Vendor Deployment and Management

Standby Hours

Nonproductive labor hours can occur as deployed restoration work crews stand by awaiting assignment, instructions, or materials. Some standby hours may be necessary during the deployment phase for travel, staging of forces, and awaiting safe work conditions. During Hurricane Michael, DEF did not have a policy in place to limit or monitor standby hours for contractors and mutual aid forces.

According to DEF management, standby hours are unavoidable when the Company requests a distribution contractor to hold up at a mustering site or base camp, hotel, etc. to ensure employees are not in the storm's path. The Company has incorporated newly required standard contract language in its 2020 Storm Procedures to be included in line, vegetation management, and damage assessment contracts that will limit this standby time.

Observation 4: Commission audit staff notes that DEF's efforts to limit standby time may reduce costs, but the efforts could also be advanced by executing contracts on more favorable terms prior to the storm season.

Minimum Daily Labor Hours

DEF's 2020 *Transmission System Storm Operational Plan* includes a work time limit provision of 16 hours on, with 8 of rest, with no minimum. DEF's most current distribution plan states, "in the initial stages of the restoration effort, it is general practice to work up to 16 hours, including travel time, without an extended rest period." Commission audit staff believes minimum guaranteed hours is a long-standing industry practice. The Company indicated that the extensive damage throughout its system provided more than enough work for every crew each day, and efforts were made to maximize productivity on each shift. However, minimum daily labor hours are addressed in DEF's 2019 Settlement Agreement. The Settlement Agreement states that DEF will, "establish a policy to limit work time to 16 hours on, with 8 of rest, with no minimum hours including avoidance of double-time billing."

Observation 5 In response to DEF's 2019 Settlement Agreement, the Company has clarified supplier agreements to remove minimum hours and implemented procedures to minimize double-time pay. Commission audit staff notes that DEF still has no written procedure for distribution operations to prohibit minimum hours and should address this remaining issue.

Contractor Work Monitoring and Recordkeeping

According to DEF, its *Transmission and Distribution System Storm Operational Plans* in effect during Hurricane Michael, the Resource Management Branch is responsible for ensuring the location of each crew is tracked during the storm restoration effort via the Resources on Demand (RoD) tool. Each off-system crew is assigned a zone/feeder/field coordinator to monitor its work progress.

Observation 6 **In response to DEF’s 2019 Settlement Agreement for the 2020 storm season, the Company is implementing additional work monitoring and recordkeeping process improvements to track all vendor crews with Global Positioning System (GPS). An electronic interface for timesheet review and approval will be fully operational in 2021. Commission audit staff believes these changes may reduce time recording and billing errors, and enhance DEF’s monitoring of vendor performance.**

Utility-Provided Lodging, Meals, and Fuel

During Hurricane Michael, DEF logistics’ contractors constructed strategically-placed base camps for vendor crews to receive lodging, meals, and fuel. According to *DEF’s Transmission System Storm Operational Plan* and distribution invoicing guidelines, contractor lodging, meals, and fuel charges should not be reimbursed for the days these services are provided at staging sites. However, upon review of the invoices, Commission audit staff found instances where contractors billed for some of these services, yet the invoice and supporting documentation did not indicate whether these services had been available at the base camp, but were authorized as an exception.

In accordance with the 2019 Settlement Agreement, DEF is to establish a policy for vendors that all meals and fueling after vendor crews are on-boarded will occur at or be provided by the base camp.

Observation 7: **In response to DEF’s 2019 Settlement Agreement for the 2020 storm season, DEF will direct its vendors to use centralized Company-provided lodging, meal, and fueling services, where practicable. Also, DEF will not reimburse vendors for expenses that do not comply with this policy. Commission audit staff believes DEF should also require documentation of approval for non-company provided services in efforts to reduce logistics costs.**

Coordination with SEE and EEI

During Hurricane Michael, DEF acquired off-system support through two avenues: first, through non-IOU vendors using renegotiated agreements; second, through the Southeastern Electric Exchange/Edison Electric Institute (SEE/EEI) mutual assistance process. SEE continuously monitors hurricane forecasts and assesses risks to member utilities’ employees. These assessments can conflict with the requesting utility’s plans for travel and deployment timing. Consequently, DEF primarily relies on its network of contractors to provide rapid service restoration.

Per the 2019 Settlement Agreement, DEF is to use reasonable best efforts to recommend to SEE and advocate changes to mutual aid IOU and vendor policies that are inconsistent with the receiving companies’ policies. Policy changes include elimination of double-time billing, mandatory meal stipends, and to establish meal policies (reasonable per diem, if any).

At the Fall 2019 SEE meeting, representatives of DEF and Tampa Electric Company advocated for adoption of the process improvements identified in the 2019 Settlement Agreement. No additional SEE members agreed to adopt these process improvements when providing mutual assistance.

Observation 8 **In response to DEF’s 2019 Settlement Agreement, DEF made efforts during the Fall 2019 Southeastern Electric Exchange member meeting to bring forward issues related to the process improvements; however, other group members did not accept these process changes. Commission audit staff notes additional efforts would be required to reach agreement among members.**

3.4.3 Lessons-Learned Assessment and Implementation of Improvements

Since 2017, DEF’s system has been impacted by three major hurricanes (Irma, Michael, and Dorian). Lessons that were learned from these events included the process improvements identified in the 2019 Settlement Agreement. Additionally, DEF continues to focus on improving its storm restoration processes through lessons-learned activities.

Observation 9: **To reassess planning and restoration efforts, DEF incorporates a lessons-learned process in its *Transmission and Distribution System Storm Operational Plans*. The process requires follow-up action plans, individual assignments, and due dates. Commission audit staff commends formalizing the process for identifying lessons learned.**