



# **Review of Duke Energy Florida Inc.'s Project Management Internal Controls for Crystal River Unit 3 Asset Recovery**

August 2015

BY AUTHORITY OF  
The Florida Public Service Commission  
Office of Auditing and Performance Analysis



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Duke Energy Florida Inc.'s  
Project Management  
Internal Controls for  
Crystal River Unit 3  
Asset Recovery**

**William "Tripp" Coston  
Public Utility Analyst IV  
Project Manager**

**Jerry Hallenstein  
Senior Analyst**

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# TABLE OF CONTENTS

<b>CHAPTER</b>		<b>Page</b>
<b>1.0</b>	<b>EXECUTIVE SUMMARY</b>	
1.1	Purpose and Objectives .....	1
1.2	Methodology and Scope .....	1
1.3	Commission Audit Staff .....	2
<b>2.0</b>	<b>CRYSTAL RIVER 3 ASSET RECOVERY PROJECT</b>	
2.1	Investment Recovery Project .....	5
2.2	Internal Transfers, RAPID and PowerAdvocate Sales .....	6
2.3	Public Auction Sales.....	7
2.4	Investment Recovery Project Closeout .....	8



## TABLE OF EXHIBITS

<u>EXHIBIT</u>	<u>Page</u>
1. Duke Energy Florida Inc. Investment Recovery Project Timeline.....	8
2. Duke Energy Florida Inc. CR3 Asset Proceeds by Sales Type .....	9





## 1.0 Executive Summary

### 1.1 Purpose and Objective

In accordance with Duke Energy Florida Inc.'s (DEF) August 1, 2013 Settlement Agreement with the parties and approved by the Florida Public Service Commission (Commission), DEF is committed to using reasonable and prudent efforts to sell or salvage assets to reduce the Crystal River Energy Complex Unit 3 (CR3) Regulatory Asset value.

In June 2015, the Commission's Office of Auditing and Performance Analysis initiated a management audit of CR3 asset disposition activities at the request of the Division of Accounting & Finance. It was anticipated that information from this audit may be used by the Commission in Docket No. 150148-EI to assess DEF's petition to include in base rates the revenue requirement for the CR3 Regulatory Asset.

The purpose of the audit was to assess the reasonableness and adequacy of DEF's internal controls and management oversight for the CR3 investment recovery project. The audit thoroughly and critically examined the processes used by DEF to maximize the recovery of the cost of CR3 assets. This report describes the results of that assessment, and provides an independent account of the key project activities and processes used in the disposition of the *non-Extended Power Uprate (non-EPU)* CR3 assets.

These non-EPU assets are the components of the CR3 facility (other than fuel) that were purchased and/or used for operating the unit separate and apart from the extended power uprate project. This includes all equipment unrelated to the EPU which DEF identified for disposition through its Investment Recovery Execution Plan.

*EPU assets* are those assets that were purchased and/or installed as part of DEF's project to increase the CR3 plant's megawatt rating. The EPU asset revenues that DEF recovers are credited back to the EPU project through the Commission's Nuclear Cost Recovery Clause.

### 1.2 Methodology and Scope

The information compiled in this audit was gathered through responses to document requests and onsite interviews with key employees accountable for directing, developing, and implementing the dispositioning of the CR3 assets. Audit staff also reviewed testimony, discovery, and other filings in Docket No. 150148-EI. Information collected and assessed was related to the following key areas of project activity:

- ◆ Governance documents used to complete the disposition of CR3 assets.
- ◆ DEF's management process for developing and authorizing the CR3 asset disposition.
- ◆ Schedule, estimated and actual expenditures of the CR3 asset disposition.
- ◆ A list of all CR3 assets dispositioned by the company, the related value, and the sales results.
- ◆ Key Performance Indicators used to monitor the status of CR3 asset disposition.

- ◆ Bid evaluation analyses.
- ◆ Internal audit reports and quality assessment reviews.

Audit staff focused on DEF's *Conduct of CR3 Investment Recovery* procedure and the *Investment Recovery Project Execution Plan* which both outline the stepwise approach to dispose of CR3 assets. Specific components include organization, pricing requirements, risk management, and approvals required for the execution of sales/affiliate transactions. Commission audit staff also examined internal controls to assess their sufficiency to minimize risk, enhance its mitigation and management, and aid efficient, reasoned decision making.

Commission audit staff's review places primary importance on internal controls found in the Institute of Internal Auditors' *Standards for the Professional Practice of Internal Auditing* and in the *Internal Control - Integrated Framework* developed by the Committee of Sponsoring Organizations of the Treadway Commission. The framework states that an internal control should consist of five interrelated components:

- ◆ Control environment
- ◆ Risk assessment
- ◆ Control activities
- ◆ Information and communication
- ◆ Monitoring

To maximize operational effectiveness and efficiency, reliability of financial reporting, and compliance with applicable laws and regulations, all five components must be present and functioning to conclude that internal controls are effective.

### 1.3 Commission Audit Staff Observations

Commission audit staff identified no concerns regarding DEF's project management or deficiencies regarding the adequacy of project controls in the disposition of non-EPU CR3 assets.

Interviews with DEF project managers and a thorough review of project documentation led Commission audit staff to make the following observations:

- DEF performed its dispositioning of CR3 assets in accordance with its corporate investment recovery guidance procedures and project plan.
- DEF's use of various sales methods for CR3 equipment (internal transfers, inter-utility sales, listed bid events, and a public auction) was reasonable.
- DEF made appropriate and extensive efforts to market its assets to a wide range of potential buyers.

- The processes employed put DEF in a position to recover the current market value, average unit value, or average book value for each CR3 asset sold.
- The market value of CR3 components is severely constrained by one-of-a-kind nuclear plant design, the limited number of comparable plants, and various problems associated with potential buyers' reuse of non-warrantied components.
- Many major non-EPU CR3 components were only marketable at salvage value but projected removal costs frequently exceeded that value.



## 2.0 Crystal River 3 Asset Recovery Project

### 2.1 Investment Recovery Project

To manage disposition of CR3 assets, DEF initiated an Investment Recovery Project (IRP) in October 2013. The IRP considered feasible approaches to dispositioning of both the EPU-related and non-EPU related items. There was a greater volume and dollar value of non-EPU CR3 components than EPU-related components offered for sale. However, to minimize costs and to ensure all asset removal activities are performed in a prudent manner to support the abandonment process, the disposition process for both EPU and non-EPU components were the same.

The organizational structure for the IRP originally consisted of over 600 team members. Towards the end of 2014, needed resources declined. For the remainder of 2015, DEF has committed two part-time staff members to manage and support the completion of EPU-related assets disposition. The disposition of non-EPU assets have been closed out since April 30, 2015.

The CR3 IRP is governed primarily by DEF's *Conduct of CR3 Investment Recovery* and procedure and the *Investment Recovery Project Execution Plan*. To maximize the overall recovery amount, DEF's Investment Recovery Project team evaluated various approaches to marketing and the potential demand for available assets. The plan also required the company to assess any potential use for these assets within Duke Energy.

The company also evaluated the opportunity to sell the recently-installed steam generator components through the Investment Recovery process. IRP management planned to market this equipment to similar Babcock & Wilcox (B&W) nuclear plants for potential sale and to original equipment manufacturer (B&W) for sale. Selling the steam generator for scrap was considered a possibility only if removal costs did not exceed scrap value.

The IRP team's strategy was to develop an inventory of CR3 assets, assess the average unit price of each asset, categorized by type of inventory (e.g., motors, wiring, and bolts), and then develop a systematic approach to disposition of assets. Under the *Conduct of CR3 Investment Recovery* procedure, all assets were to be disposed in the following manners:

- ◆ To the greatest extent possible, utilize internal inventory transfer to the Duke Energy fleet per Duke Energy's Affiliate Asset Transfer process.
- ◆ Assets not transferred internally would be segregated and bid out. Price quotes would be obtained from distributors, other utilities, resellers, and Original Equipment Manufacturer's (OEMs) to establish the fair market value of assets
- ◆ For remaining assets, utilize auction companies for disposition at salvage or scrap value

The company completed this endeavor using a layered approach of internal notifications, inter-utility publications, targeted listed bid events and a public auction.

## 2.2 Internal Transfers, Rapid and PowerAdvocate Sales

Beginning in November 2013, the IRP team began efforts to identify possible internal sales and affiliate transfers of CR3 assets. A match list was created to assist other Duke Energy plants in identifying common components. In December 2013 and January 2014, Duke Energy plants were able to compare internal needs to this list. Both internal sales and affiliate transfers assets are required by DEF procedures to be priced at either the average unit price or net book value. To ensure affiliate transfers meet current agreements and approvals, the IRP requires an *Affiliate Asset Transfer Request* e-Form to be completed for any material which is being moved from DEF.

In addition to internal sales and affiliate transfers, DEF conducted marketing efforts through the use of two Internet-based sourcing tools: Readily Accessible Parts Integrated Database (RAPID) and PowerAdvocate.

The RAPID system is an industry inventory management database accessible to utilities within the United States and Canada. It provides a quick method for searching, purchasing, and selling power plant components. Once the IRP team identified the marketable CR3 assets DEF offered these assets for sale at the average unit price on RAPID. RAPID sales were completed from February 2013 to December 2014.

From November 2013 through February 2015 the IRP team conducted a series of listed bid events posted on PowerAdvocate available to utility and non-utility third parties. The company hosted a total of 43 bid events using this process. CR3 assets listed on PowerAdvocate were offered through a closed-bid process and managed by the IRP team with coordination from Duke Energy Corporate Procurement.

Leading up to the listed bid events on PowerAdvocate, the IRP team organized and grouped items for maximum bid interest and value. After grouping of the 1.4 million pieces of CR3 inventory identified for sale, inventory was separated into 36,000 catalogue identifications. The catalogue identifications were grouped by lots for sale in a single transaction in one of six pools or tranches. The six tranches were structured as follows and were made available for external bidding via DEF's PowerAdvocate website:

- ◆ Tranche 1: Average unit price > \$10,000
- ◆ Tranche 2: Average unit price > \$5,000 and < \$10,000
- ◆ Tranche 3: Average unit price > \$2,500 and < \$5,000
- ◆ Tranche 4: Average unit price > \$1,000 and < \$2,500
- ◆ Tranche 5: Average unit price > \$500 and < \$1,000
- ◆ Tranche 6: Average unit price < \$500

The IRP team developed a tiered approach for listing CR3 assets on PowerAdvocate beginning with Tranche 1 since it consisted of inventory with the greatest market value. However, DEF's IRP team made the decision to move Tranche 6 forward since 1.1 million (79%) of 1.4 million pieces of inventory for sale fell in Tranche 6. Of the 36,000 catalogue identifications, 34,000 (94

percent) of the inventory categories fell into Tranche 6. Therefore, the initial assets listed on PowerAdvocate were in Tranche 6, 1, and 2.

### 2.3 Public Auction Sales

During the first quarter of 2014, the IRP team started evaluating the opportunity to transition to a public auction format for the remaining CR3 assets. Management began to reconsider the feasibility of completing the listed bid event process for the remaining volume of CR3 assets. Processing in preparation for listed bid events is labor intensive. A public auction could prevent the need to add substantial additional resources.

In March 2014, Southern California Edison conducted a public auction of non-nuclear assets from its San Onofre Nuclear Generating Station. DEF sent IRP team members to observe this event to help determine whether this approach would be viable for selling CR3 assets. The IRP team members reviewed the process, held discussions with Southern California Edison, and concluded this approach was viable. The IRP team proposed to senior management that DEF shift from the listed bid event approach to a one-time, public auction for selling the remaining assets. This recommendation was approved by senior management in July 2014.

The IRP team, with the support of Corporate Procurement, issued a Request for Proposal to twelve large and small auction companies. Proposals were received from five of the companies and two finalists were brought in for on-site presentations. These auction companies had experience in large industrial-based auctions. DEF executed a contract with Heritage Global Partners Asset Advisory & Auction Services. According to DEF, the compensation and commission contract terms were in keeping with typical auction practices.

The company worked with the selected vendor to develop and employ a mix of printed advertising, targeted calls to potential buyers, social media aimed at industry groups, and general advertising to the public and non-industry bidders including salvage dealers. DEF believes that this marketing effort reached 100,000 potential bidders worldwide, including foreign nuclear generating plant operators.

The auction was held September 24 through 26, 2014, with bids accepted in person, and via both the Internet and telephone. The auction was a sell-all event with no price reserves on lots. DEF reserved the right to reject the final bid only if the company believed that the sale price was below removal cost.

## 2.4 Investment Recovery Project Closeout

**Exhibit 1** depicts the timeline for the various key activities in the disposition of CR3 assets via the IRP.

Duke EnergyFlorida, Inc. Investment Recovery Project Timeline																				
	2013			2014												2015				
	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
Duke Internal Sales and Affiliated Transfers																				
RAPID/PowerAdvocate Sales																				
Public Auction																				
Market to OEM																				

**EXHIBIT 1**

Source: DEF Response to Data Request 1-5.

After completing the internal and external CR3 asset sales, DEF made additional efforts to sell the CR3 steam generator to Babcock & Wilcox Canada (the OEM) through April 2015. IRP management states the main limitation to finding a potential buyer for the steam generator equipment was its specialized engineering, the fact it was installed and considered used without warranty, and the limited pool of potential buyers. In the end, the company determined that all similar Babcock & Wilcox plants had previously replaced their steam generators. In addition, Babcock & Wilcox expressed no interest in repurchasing the steam generator.

The IRP team also assessed the option to remove several major electric plant in service assets for sale to a recycler for scrap. These included motors, transformers, batteries and chargers, and the steam generator and related components. Management determined that the removal cost would exceed the salvage proceeds and would be a high risk activity. The ultimate decision was to abandon in place. Later, DEF will salvage the equipment through the dismantling and decommissioning process.

In April 2015 the company closed out the Investment Recovery Project for all remaining CR3 non-EPU assets. This was completed in accordance with the company project management protocol. The company ceased charging administrative costs for this project to the Regulatory Asset. A small contingent of staff remains in place through 2015 to finalize the EPU-related recovery efforts. However, these costs are assigned to the Nuclear Cost Recovery Clause.

As shown in **Exhibit 2**, the project close-out date, the proceeds of CR3 assets totaled \$8,361,711, with \$2,992,688 in actual project costs. Internal and affiliate transfers comprised 34 percent of the total proceeds. RAPID and PowerAdvocate transactions accounted for 33 percent and 7% of total proceeds, respectively. The public auction yielded 17 percent of total proceeds.



Duke Energy Florida, Inc. CR3 Asset Proceeds by Sales Type		
Sales Method	Proceeds	Percent of Proceeds
DEF Internal	\$1,514,904	18%
Affiliated Asset Transfer	1,357,378	16%
RAPID	2,722,912	33%
Power Advocate/Non Duke	605,015	7%
Auction	1,408,328	17%
Salvage	727,972	9%
Disposal	25,203	0%
<b>Total</b>	<b>\$8,361,711</b>	<b>100%</b>

**EXHIBIT 2**

Source: DEF Response to Data Request 2-5.