Dianne M. Triplett
DEPUTY GENERAL COUNSEL

July 2, 2024

VIA ELECTRONIC MAIL

Mr. Adam J. Teitzman, Commission Clerk
Office of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: *Docket 20240025-EI, Petition for Rate Increase by Duke Energy Florida, LLC*

Dear Mr. Teitzman,

Please find enclosed for electronic filing on behalf of Duke Energy Florida, LLC ("DEF"), DEF's Rebuttal Testimony of Jeffrey Kopp.

Thank you for your assistance in connection with this matter. Please feel free to call me at (727) 820-4692 should you have any questions concerning this filing.

Respectfully submitted,

/s/Dianne M. Triplett

Dianne Triplett

DMT/mh

Attachment

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CERTIFICATE OF SERVICE

Docket No. 20240025-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by electronic mail this 2nd day of July, 2024, to the following:

/s/ Dianne M. Triplett
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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for rate increase by Duke Energy Florida, LLC	**Docket No. 20240025-EI** **Submitted for filing: July 2, 2024**

REBUTTAL TESTIMONY

OF

JEFFREY T. KOPP

On behalf of Duke Energy Florida, LLC

I. INTRODUCTION AND SUMMARY

Q. Please state your name and business address.

A. My name is Jeffrey (Jeff) T. Kopp. My business address is 9400 Ward Parkway, Kansas City, Missouri 64114.

Q. By whom are you employed and in what capacity?

A. I am employed by 1898 & Co., part of Burns & McDonnell Engineering Company, Inc. ("Burns & McDonnell") as the Senior Managing Director of the Energy & Utilities Consulting department.

Q. Did you previously file direct testimony in this proceeding?

A. Yes. I submitted pre-filed direct testimony in this docket on April 2, 2024.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to the testimony of Intervenor Office of Public Counsel's ("OPC") Witness William W. Dunkel who testifies regarding certain recommendations in Duke Energy Florida, LLC's ("DEF" or the "Company") "2023 Final Dismantlement Cost Study" ("Dismantlement Study" or "Study") that I prepared.

Q. Please summarize your rebuttal testimony.

A. My rebuttal testimony addresses the following five issues raised in the Direct

Testimony of OPC Witness Dunkel:

1. 1898 & Co. and I, are not qualified since we have not participated in an actual dismantlement of a utility production facility.

2. The Company consistently over recovers dismantlement costs.

3. The Commission should exclude the 20 percent contingency.

4. The Commission should exclude the plant inventory costs.

5. The costs for the Hines Cooling Pond are too high and may not even occur.

II. 1898 & CO. IS WELL QUALIFIED IN DISMANTLEMENT ESTIMATIONS

Q. Has 1898 & Co. participated in the actual dismantlement of a utility production facility?

A. No, neither 1898 & Co. or I have participated in projects during the actual physical dismantlement of a utility owned production facility. 1898 & Co. is the consulting division of Burns & McDonnell and does not participate in any detailed design, construction, or demolition projects. 1898 & Co. performs studies and analysis for planning purposes, including cost estimates and financial analysis.

Q. Does this lack of participation in the actual dismantlement of a utility production facility render you unqualified to prepare dismantlement cost estimates?

A. No. Burns & McDonnell has participated in the actual dismantlement of multiple utility production facilities in addition to other types of facilities. As part of Burns

& McDonnell, 1898 & Co. has access to the entire Burns & McDonnell team, which was rated the number one firm in power by Engineering News-Record in 2023. This includes individuals in our Power and Environmental divisions, and the teams that are involved in actual dismantlement of facilities. Individuals that currently work on actual dismantlement of facilities have participated in many of the dismantlement studies prepared by me and my team within 1898 & Co., and those individuals have been instrumental in helping to develop our cost estimating methodologies, templates, and individual cost inputs. In addition, as mentioned in my direct testimony, we have worked closely with demolition contractors over the years in developing decommissioning cost estimates in order to more accurately estimate the costs for activities that the demolition contractors will perform.

Q. Have you worked alongside demolition contractors?

A. Yes. In addition to those at Burns & McDonnell who have been involved in the actual dismantlement of various types of facilities, as I mentioned in my direct testimony, I have worked alongside demolition contractors in the development of the models used to estimate the costs included in the Dismantlement Study in order to more accurately estimate the costs for activities that the demolition contractors will perform.

Q. Has Mr. Dunkel accurately characterized your Study with his statements that the Study is not a plan that the later physical dismantlement will follow?

A. No. There are varying levels of plans and details within those plans that can be developed. Mr. Dunkel boils it down to a statement that because contractors will ultimately be responsible for determining means and methods that result in safely dismantling the Plants at the lowest possible cost, that the Study is not a plan.

Q. Can you please clarify what type of a plan your Study includes?

A. Yes. For purposes of developing costs to be used in depreciation calculations, we determine the level of decommissioning and dismantlement that will occur, activities that will need to be performed to achieve that level of dismantlement, and typical means and methods that could be employed to perform those activities. These typical means and methods have been developed in collaboration with demolition contractors and the Burns & McDonnell team that participates in actual dismantlement of facilities. We do not dictate that demolition contractors must follow these means and methods, as the contractor will need to evaluate the site, condition of the facilities, the equipment and team available to them, and various other factors to determine safe means and methods. However, the means and methods assumed as the basis of our cost estimate are consistent with the approach of many demolition contractors, have been validated with demolition contractors as a reasonable basis for estimating costs, and are appropriate for determining costs at this planning level.

III. THE DISMANTLEMENT COST ESTIMATES ARE REASONABLE AND APPROPRIATE

Q. How do you respond to Mr. Dunkel's characterization that your Dismantlement Cost estimates overestimated what the actual physical dismantlement later cost[1]?

A. Mr. Dunkel makes this statement based solely on the fact that the depreciation reserves contain a surplus.

Q. Is the deprecation reserve surplus an appropriate basis for determining that your cost estimates are overstated?

A. No. The best way to determine the accuracy of the estimates I prepared is to compare them directly to the actual dismantlement costs incurred by the Company. Company Witness Tim Hill makes this direct comparison in his rebuttal testimony. Table 1 of his rebuttal testimony includes a summary of the costs incurred by the Company compared to estimates I prepared for five of the Company owned facilities.

Q. What does the comparison that Mr. Hill prepared show?

A. In aggregate, the actual costs incurred for dismantlement of those facilities are slightly higher than, but within one percent of, the estimates prepared by me and my team. So contrary to Mr. Dunkel's statement, my cost estimates are slightly understated, but well within the margin of error for planning level costs estimates

[1] Direct Testimony of William Dunkel, page 27, lines 15 - 16

such as these.

Q. Does Mr. Dunkel provide any analysis of the methodologies or specific costs in your study to support his statement that your "Dismantlement Cost Estimates are clearly excessive"[2]?

A. No, Mr. Dunkel has provided no analysis of any individual costs or methodologies, he simply makes a blanket statement generalizing all the entire Dismantlement Study as being excessive.

Q. Does Mr. Dunkel even attempt to evaluate the accuracy of the costs provided in the Dismantlement Study?

A. No. Mr. Dunkel does not even attempt to evaluate the costs in the Dismantlement Study; rather, he simply states there is "no valid way to evaluate many parts[3]" of the estimates. I have provided the Workpapers with formulas intact, in response to Data Request OPC POD 5-47. It appears Mr. Dunkel has not attempted to review my Workpapers. Mr. Dunkel claims it is "impractical" to go through each item in a project and discuss the number of person-hours yet does not provide any support to his questioning of the person-hours for even a single estimate.

[2] Direct Testimony of William Dunkel, page 30, lines 7-8.

[3] Direct Testimony of William Dunkel, page 30, lines 9 – 10.

Q. Conversely, what level of diligence have you and your team put into evaluating the costs that the Company will incur when the plants are ultimately dismantled?

A. My team and I worked to develop the bottoms-up estimates included in the Dismantlement Study. As I stated in the Dismantlement Study and again in my Direct Testimony, we prepared an estimate of quantities for the tasks required to be performed for each dismantlement effort based on a visual inspection of the facilities, review of engineering drawings, our in-house database of plant equipment quantities, and professional judgment. To these quantities we applied current market pricing for labor rates, equipment costs, scrap, and disposal costs specific to the area in which the work is to be performed. In doing so, we were able to determine the total cost of dismantlement for each site. It was not impractical for my team to develop these estimates and they can be reviewed with similar effort.

Q. What is Mr. Dunkel's recommendation regarding the assumed overestimation in the Dismantlement Study?

A. Mr. Dunkel's solution is unrelated to the direct costs provided in the Dismantlement Study. Mr. Dunkel recommends only removing contingency and inventory costs altogether. This solution is unrelated to the amount of person-hours, and he provides no evidence of how this adjustment more accurately reflects the actual costs the Company will incur when dismantlement of the facilities takes place. His assessment is admittedly incomplete, and it seems his aim is to decrease costs only for the

purpose of arbitrarily decreasing costs.

IV. THE CONTINGENCY FACTORS INCLUDED IN THE STUDY ARE REASONABLE AND APPROPRIATE

Q. What does Mr. Dunkel recommend regarding the contingency factor included in the Study?

A. Mr. Dunkel recommends that the contingency be completely removed from the Dismantlement Study.

Q. Does Mr. Dunkel provide reasons for including zero contingency?

A. Mr. Dunkel argues that contingency costs are unknown costs and as such cannot result in valid cost-based rates. He further states that contingencies are speculative and unsupported[4]. Mr. Dunkel's statements mischaracterize what contingency costs are and how they are determined.

Q. Please explain.

A. Although certain specific costs are not known today, the types of costs that are likely to be required to be covered by contingency can be identified. They include weather delays, unknown environmental remediation, discovering equipment or materials not shown on drawings, or additional dewatering requirements, all of which Burns & McDonnell has experienced during the decommissioning and

[4] Direct Testimony of William Dunkel, page 31, lines 9 – 17.

demolition process.

Q. Is zero contingency a reasonable assumption?

A. No. As I explained in my Direct Testimony, the application of contingency is not only appropriate, but also standard industry practice. Furthermore, Florida Administrative Code, 25-6.04364 Electric Utilities Dismantlement Studies specifically includes a provision for contingency costs. Mr. Dunkel's recommendation to completely remove contingency costs is not consistent with standard industry practice or the Florida Administrative Code.

Q. What is the purpose of a contingency?

A. A contingency includes unspecified but reasonably expected additional costs to be incurred during the execution of dismantlement activities. For dismantlement projects, there is some uncertainty associated with work conditions, the scope of work and how the work will be performed. There also is some uncertainty associated with estimating the quantities for dismantlement of facilities. These uncertainties result from the age and limits on drawings available, as well as the absence of testing results for environmental contamination prior to preparation of these types of studies. These uncertainties also include issues related to weather delays, unknown environmental contamination, discovering equipment or materials not shown on drawings, or additional dewatering requirements. These are in addition to the direct costs associated with the base decommissioning costs for

known-scope items.

Importantly, contingency is not being applied simply because the costs might exceed the direct costs. They are applied to determine the most likely total cost of completing the project. The Commission should consider the total costs to be incurred to complete decommissioning activities.

Q. Please explain the relationship between the dismantlement cost estimates and contingencies.

A. It is important to understand how the dismantlement cost estimates are developed and the relationship of contingency to those costs. The estimate of direct dismantlement costs is prepared with the intent of accurately representing what contractors would bid to demolish the equipment, address environmental issues, and restore the site through a competitive bidding process, based on performing known dismantlement tasks under ideal conditions (Emphasis added). In addition to these known tasks under ideal conditions, contingency is added to account for unknown, but reasonably expected to be incurred costs. The application of contingency is a common and prudent practice in the construction industry, and it is included in order to recognize the probability of increases in cost due to the unknowns as described above. Importantly, contingency is a cost that is typically

included by owners throughout all stages of planning and through execution of the project.

Q. How did you determine the level of contingency costs included in your study?

A. As I explained in my Direct Testimony, the percentage of contingency applied to any cost estimate is directly related to the level of unknowns associated with the project. When preparing construction cost estimates for a new fossil-fuel generation facility on a greenfield site, we would typically determine the level of contingency based on the stage of planning or execution that we are in, which impacts the level of unknowns (i.e., potential scope changes, weather delays, other factors). We would apply higher contingency at early stages of planning when there are more potential unknowns. As engineering design progresses and some of these unknowns can be reduced through subsurface investigations, engineering design drawings, and engineering specifications, the amount of contingency may be reduced, and a lower level of contingency would be applied. However, contingency would never be completely eliminated, even after full detailed design is completed, since some unknowns, as common as weather delays, cannot be completely eliminated. The dismantlement cost estimates prepared as part of this filing are most similar to the cost estimates one makes in the early stages of planning for a new fossil-fuel generation facility on a greenfield site.

However, a dismantlement cost estimate presents additional risks that must be

accounted for in the contingency. As noted, before, dismantlement activities occur on sites where power generation has been ongoing for many years and environmental remediation is more likely than on a greenfield site. In addition, no on-site testing for hazardous materials and potential environmental remediation has been performed yet during these planning stages to fully identify all of these items. No subsurface investigations or groundwater sampling has been performed yet at this stage to identify and define remediation requirements. And some unknowns, such as below grade storage tanks or piping, which may contain hazardous materials, may not be uncovered until the dismantlement process is underway. Typically, my team and I would apply between 10% and 15% contingency to a screening level cost for a new generation construction cost estimate in the early planning stages. But, because dismantlement projects involve aged facilities that inherently carry more unknowns, a 20% contingency to cover this greater level of risk is reasonable.

Q. What specific factors did you consider for the Company in recommending a 20% contingency?

A. At the planning stage, the Company has not yet performed subsurface investigations, asbestos inventories, or groundwater sampling to identify and define remediation requirements. Additionally, other circumstances, such as below grade storage tanks or piping, which may contain hazardous materials, may not be uncovered until the dismantlement process is underway.

Q. Does the analysis in Mr. Hill's rebuttal testimony comparing actual Company incurred dismantlement costs to your cost estimates, support the application of 20% contingency as reasonable?

A. Yes. The cost estimates I prepared and that are presented in Mr. Hill's rebuttal testimony are inclusive of 20% contingency. As previously stated, this contingency level is applied to determine the most likely total cost of completing the project. Mr. Hill's testimony demonstrates that the 20% contingency level was appropriate and achieved the objective of determining the most likely total cost.

Q. How does the level of contingency in dismantling costs affect customers?

A. As I noted before, the purpose of the Dismantlement Study is to ensure that these costs are reasonably recovered through depreciation rates over the useful life of the asset so that customers today pay for the portion of the total cost of plant that they are using, including the removal costs that will be incurred in the future. Including a contingency is necessary to ensure that the future dismantling costs are not disproportionately borne by future customers.

Q. Would you expect DEF's Power Generation organization to develop cost estimates for capital projects with the same approach applied to dismantlement projects?

A. No. Those cost estimates are being developed for different types of projects, are

developed for different purposes, and likely have different cost recovery mechanisms. However, even in Mr. Dunkel's example he points out the possibility for unknowns to occur and he understands that when the actual costs exceed the budgeted amount in the case of the Company's capital projects, an Extra Work Authorization is initiated to update the additional costs.[5] Mr. Dunkel does not offer a solution in the event additional unexpected costs are met at the time of dismantlement of a generation facility if contingency is not accounted for properly. The future rate payers should not be penalized for an unaccounted-for 20 percent increase on the direct costs at the time of dismantlement, were we not to include contingency at this time.

V. THE INVENTORY ESTIMATES INCLUDED IN THE STUDY ARE REASONABLE AND APPROPRIATE

Q. What is Mr. Dunkel's reasoning for not including inventory?

A. Mr. Dunkel excludes plant inventory costs because he believes DEF is over collecting from ratepayers. This reasoning is unrelated to the plant inventory costs and dismisses the purpose of these costs. Disposing of remaining inventory is just as much a part of decommissioning a plant as disposing of other equipment and plant components.

[5] Direct Testimony of William Dunkel, page 32, lines 4 - 7

Q. What is the basis of Mr. Dunkel's suggestion that the plant inventories could be reduced in the future?

A. Mr. Dunkel simply points to an assumption in our costs estimates that "DEF will remove or consume all burnable coal, fuel oil and chemicals to the reasonable extent possible prior to commencement of demolition activities." This is in no way related to plant inventory costs, and none of these items are included in plant inventory costs. Plant inventories include spare parts, gaskets, etc. The consumption of consumables immediately prior to retirement of the facilities gives no indication of what plant inventory levels will be.

Q. Can plant inventory be decreased as easily as consumable materials?

A. No. Consumable materials can simply be used up by operating the plant and can be done in relatively short order immediately prior to retirement of the plants. Spare parts are only used for needed maintenance and repairs.

Q. Is it correct to assume the Company will not maintain a normal inventory level as the plant approaches final retirement?

A. No. Mr. Dunkel contends that the Company will not maintain normal inventory levels as the plant approaches final retirement. However, this ignores the fact that inventory items are required to be maintained in order to achieve appropriate reliability of the plants and to facilitate routine maintenance on the facilities. Even if inventory levels do decrease at some point in time, these inventory levels will be

reflected in updated dismantlement cost estimates in the future.

Q. What is the basis for how plant inventories will be handled at the end of life of the plants?

A. Plant inventory must be safely sold, moved to other locations, or scrapped. Any sale of scrap value is credited back to the dismantlement costs. In the Dismantlement Study, the inventory is treated the same as all other plant equipment. It is assumed that it has some value as salvage or scrap, which offsets a portion of the costs associated with it. The difference between the book value of those spare parts inventories and the sales or scrap value is included as a dismantlement cost. This is done to recognize the cost impact of the loss of value associated with the plant inventory at the time of retirement.

Q. Mr. Dunkel states that your study gives the inventory very little value, at only 14%. Is this accurate?

A. No. Mr. Dunkel simply looked at the aggregate values of scrap. As stated in our Study, and reiterated in Mr. Dunkel's testimony, "1898 & Co. assumes 25 percent of the plant inventory value for combustion turbine facilities will be recovered as a scrap credit and 10 percent of the inventory for the other facilities." It should be noted that this reflects the fact that the market for spare parts inventories for combustion turbines is significantly stronger than the market for spare parts inventories for coal plants, due to there being many combustion turbine facilities

that will be operated for many years into the future, while coal plants continue to be taken out of service without new coal plants being built to replace them.

VI. HINES COOLING POND COSTS ARE APPROPRIATELY INCLUDED IN THE STUDY

Q. What is Mr. Dunkel's position on the costs for removal of the Hines Cooling Pond?

A. Mr. Dunkel states this cost should not be included under the assumption that the Hines Cooling Pond could potentially be reused for future generation facilities.

Q. Did the Company have plans at the time of the Dismantlement Study for building future generation at the site of the Hines facility?

A. No.

Q. Is it likely a cooling pond will be needed in the future at the Hines site?

A. No. This is pure speculation by Mr. Dunkel. Even in the event that a generating facility that includes a steam turbine is installed at the site following the dismantlement of the Hines facility, it is more likely a cooling tower would be installed and used for cooling than the cooling pond.

Q. Is it valid to assume the Hines Cooling Pond could be abandoned in place?

A. No. In the event the cooling pond is not dismantled with the remainder of the Hines

facility, the cooling pond would continue to require ongoing maintenance costs and would still have a liability for eventual costs for removal. This would simply delay the process and increase the total cost.

Q. If the Hines Cooling Pond is reused, will the liability for costs of removal of the cooling pond go to zero?

A. No. Whether it is reused or closed at the time of dismantlement of the Hines facility, eventually costs will be required for closure. Mr. Dunkel seems to think the costs will not be a factor in the event the site is repurposed. This is an actual cost, whether it is recognized now or later in the future following reuse. At this time, there are no plans for reuse of the site following dismantlement of the Hines Generation Facility, as such it is irresponsible to ignore the cost for the future closure of the cooling pond.

Q. Why did your prior Dismantlement Study not include costs for dismantlement of the Hines Cooling Pond whereas this current Study did?

A. The Company requested we include these costs during this current Dismantlement Study, based on their experience incurring costs associated with cooling pond closures at other facilities.

Q. Is it your position the cost of removal of the Hines Cooling Pond should remain in the Dismantlement Study?

A. Yes. This is a real cost liability to the Company, whether it is at the time of the retirement of the Hines facility or in the future. The Company has incurred costs for cooling ponds at other facilities, including Weatherspoon and Gibson. It is prudent the Company plans for the retirement of the Hines Cooling Pond.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.