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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

KIM SPENCE McDANIEL

ON BEHALF OF

DUKE ENERGY FLORIDA, LLC

DOCKET NO. 20210007-EI

July 30, 2021

Q. Please state your name and business address.

A. My name is Kim Spence McDaniel. My business address is 299 First Avenue North, St. Petersburg, FL 33701.

Q. Have you previously filed testimony before this Commission in Docket No. 20210007-EI?

A. Yes, I provided direct testimony on April 1, 2021.

Q. Has your job description, education, background and professional experience changed since that time?

A. No.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to explain material variances between 2021 actual/estimated cost projections and original 2021 cost projections for environmental compliance costs associated with FPSC-approved programs under

1 my responsibility. These programs include the Substation Environmental
2 Investigation, Remediation and Pollution Prevention Program (Project 1 & 1a),
3 Distribution System Environmental Investigation, Remediation and Pollution
4 Prevention Program (Project 2), Pipeline Integrity Management (PIM) (Project
5 3), Above Ground Secondary Containment (Project 4), Phase II Cooling Water
6 Intake – 316(b) (Project 6), CAIR/CAMR - Peaking (Project 7.2), Best Available
7 Retrofit Technology (BART) (Project 7.5), Arsenic Groundwater Standard
8 (Project 8), Sea Turtle Coastal Street Lighting Program (Project 9), Underground
9 Storage Tanks (Project 10), Modular Cooling Towers (Project 11), Thermal
10 Discharge Permanent Cooling Tower (Project 11.1), Greenhouse Gas Inventory
11 and Reporting (Project 12), Mercury Total Daily Maximum Loads Monitoring
12 (Project 13), Hazardous Air Pollutants Information Collection Request (ICR)
13 Program (Project 14), Effluent Limitation Guidelines Program (Project 15.1) and
14 National Pollutant Discharge Elimination System (“NPDES”) (Project 16) for the
15 period January 2021 through December 2021.

16
17 **Q. Please explain the variance between actual/estimated O&M project**
18 **expenditures and original projections for Substation Environmental**
19 **Investigation, Remediation and Pollution Prevention Program (Projects 1 &**
20 **1a) for the period January 2021 through December 2021.**

21 A. Total O&M expenditures for the Transmission and Distribution Substation
22 Remediation Projects are estimated to be \$2,738 (91%) lower than originally
23 projected. Project 1, Transmission Substation Remediation, is forecasted to be
24 \$2,738 lower than originally projected primarily due to final work at the Central

1 Florida and Lake Wales substations being completed sooner than expected. The
2 final documents for the Central Florida substation, Amended Declaration of
3 Restrictive Covenant (“DRC”) was recorded by the Sumter County Clerk of Court
4 in February of this year. No further ECRC-recoverable charges are expected to
5 be charged to this program.

6 Project 1a, Distribution Substation Remediation, is complete.
7

8 **Q. Please explain the variance between actual/estimated O&M project**
9 **expenditures and original projections for Phase II Cooling Water Intake**
10 **316(b) (Projects 6 & 6a) for the period January 2021 through December**
11 **2021.**

12 A. O&M expenditures for Phase II Cooling Water Intake 316(b) are expected to be
13 \$5,000 (14%) lower than originally forecasted.

14 Project 6, 316(b) – Base is forecasted to be \$4k, or 80% lower than forecasted.

15 Project 6a, 316(b) – Intermediate is forecasted to be \$1k, or 3% lower than
16 originally forecasted. These variances are primarily due to a reduced need for
17 contractor support following the agency review of the 316(b) final report. The
18 original estimate anticipated a longer period of questions and follow up.
19

20 **Q. Please explain the variance between actual/estimated Capital project**
21 **expenditures and original projections for Phase II Cooling Water Intake**
22 **316(b) (Project 6) for the period January 2021 through December 2021.**

23 A. Capital expenditures for Phase II Cooling Water Intake 316(b) are expected to be
24 approximately \$2,173,607, or 100% higher than originally forecasted. As stated

1 in my July 31, 2020, testimony filed in Docket No. 20200007-EI and my April 1,
2 2021, testimony filed in this Docket, the computer model Duke Energy Florida,
3 LLC (“DEF”) utilized to develop the original design at Crystal River North
4 (“CRN”) did not accurately estimate the expected water flows. The low-flow
5 resolution requires a modification to the CRN Intake Structure for the continued
6 use of the existing intake pumps and installation of 316(b) compliant static
7 screens. This work is expected to be completed this year.

8
9 **Q. Please explain the variance between actual/estimated O&M project**
10 **expenditures and original projections for Sea Turtle – Coastal Street**
11 **Lighting (Project 9) for the period January 2021 through December 2021.**

12 A. O&M expenditures for Sea Turtle – Coastal Street Lighting are expected to be
13 \$600 (100%) lower than forecasted. Turtle nesting season has recently begun and
14 DEF has not received any new requests from Gulf County or Pinellas County
15 Code Enforcement for any issues regarding new lighting fixtures; therefore, the
16 \$600 forecasted for O&M is not expected to be spent.

17
18 **Q. Please explain the variance between actual/estimated Capital project**
19 **expenditures and original projections for Sea Turtle – Coastal Street**
20 **Lighting (Project 9) for the period January 2021 through December 2021.**

21 A. Capital expenditures for Sea Turtle – Coastal Street Lighting are expected to be
22 \$600 (100%) lower than forecasted. Turtle nesting season has recently begun and
23 DEF has not received any new requests from Gulf County or Pinellas County
24 Code Enforcement for any issues regarding new lighting fixtures; therefore, the

1 \$600 forecasted for Capital is not expected to be spent.

2

3 **Q. Please explain the variance between actual/estimated O&M project**
4 **expenditures and original projections for National Pollutant Discharge**
5 **Elimination System (NPDES) (Project 16) for the period January 2021**
6 **through December 2021.**

7 A. O&M expenditures for NPDES are expected to be \$20,135, or 64% higher than
8 forecasted. As stated in my April 1, 2020, testimony in this Docket, this is
9 primarily due to invoices received in 2020 that were not charged to the project
10 until 2021.

11

12 **Q. Please provide an update of 316(b) regulations.**

13 A. The 316(b) rule became effective October 15, 2014, to minimize impingement
14 and entrainment of fish and aquatic life drawn into cooling systems at power
15 plants and factories. There are seven pre-approved impingement options.
16 Entrainment compliance is site specific (mesh screen or closed-cycle cooling).
17 Legal challenges to the 316(b) rule have so far been unsuccessful. The U.S. Court
18 of Appeals for the Second Circuit issued an opinion on the consolidated
19 challenges to the 316(b) Rule for Existing Facilities. The court upheld the Rule,
20 the National Marine Fisheries Service and the U.S. Fish and Wildlife Service
21 biological opinions, and the incidental take statement, concluding that each action
22 was based on reasonable interpretations of the applicable statutes and sufficiently
23 supported by the adequate record. The court also found the EPA complied with
24 applicable procedures, including by giving adequate notice of the final rule's

1 provisions to the public.

2

3 The regulation primarily applies to facilities that commenced construction on or
4 before January 17, 2002, and to new units at existing facilities that are built to
5 increase the generating capacity of the facility. All facilities that withdraw greater
6 than 2 million gallons per day from waters of the U.S. and where twenty-five
7 percent (25%) of the withdrawn water is used for cooling purposes are subject to
8 the regulation.

9

10 Per the final rule, required 316(b) studies and information submittals will be tied
11 to NPDES permit renewals. For permits that expire within 45 months of the
12 effective date of the final rule, certain information must be submitted with the
13 renewal application. Other information, including field study results, are required
14 to be submitted pursuant to a schedule included in the re-issued NPDES permit.
15 Both the Anclote and Bartow stations are within this schedule and the NPDES
16 permit renewal applications, including the studies and information required under
17 40 CFR 122.21(r)(2-13) as required by the 316(b) rule of the Clean Water Act,
18 were submitted to FDEP for Anclote and Bartow in July and August 2020,
19 respectively. A 316(b) Compliance Plan for Crystal River Units 4 & 5 utilizing
20 the cooling water blowdown from the Citrus Combined Cycle Station as the
21 source of make-up water for Crystal River Units 4&5 is being implemented as
22 part of the current permit renewal for those units.

23

24 For NPDES permits that expire more than 45 months from the effective date of

1 the rule, all information, including study results, is required to be submitted as
2 part of the renewal application.

3

4 The Bartow Station will require modifications to comply with the 316(b) Rule.
5 DEF is proposing that the Anclote station can meet 316(b) requirements with
6 existing infrastructure, but additional studies to demonstrate compliance will
7 likely be required by the permit. DEF has been conducting 316(b) studies at the
8 Anclote and Bartow stations, and study results along with proposed compliance
9 strategies were filed with the Florida Department of Environmental Protection
10 (“FDEP”) in July and August 2020, respectively as part of the NPDES renewal
11 process. Proposed compliance strategies for both are being evaluated by FDEP
12 as part of the NPDES permit renewal.

13

14 The full extent of compliance activities and associated expenditures cannot be
15 determined until review of the proposed options by FDEP has been completed and
16 the NPDES permit renewal issued with new compliance requirements and
17 schedules. While unlikely, it is possible preliminary studies could begin as early
18 as the fourth quarter of 2021 if final NPDES renewal is issued by FDEP by the
19 end of this year. Due to the complexity of the 316(b) studies and proposals under
20 review by the agency, it is difficult to assess the timing or the outcome of the final
21 NPDES permit renewal.

22

23 DEF will provide the Commission an update on the status of the 316(b) Rule
24 compliance strategies for the Anclote and Bartow stations in the next available

1 ECRC filing following issuance of the NPDES permit renewal.

2

3 **Q. Please provide an update on Carbon Regulations.**

4 A. For existing Units, on October 23, 2015, EPA published the final New Source
5 Performance Standards (“NSPS”) for CO2 emissions from existing fossil fuel-
6 fired electric generating units (also known as the “Clean Power Plan” or “CPP”).
7 The final CPP was challenged by 27 states and a number of industry groups, with
8 oral arguments held before the D.C. Circuit Court of Appeals on September 27,
9 2016. In addition, on February 8, 2016, the U.S. Supreme Court placed a stay on
10 the CPP until all litigation is completed.

11

12 Also, on October 23, 2015, the EPA published the final NSPS for CO2 emissions
13 for new, modified and reconstructed fossil fuel-fired EGUs. The rule includes
14 emission limits of 1,400 lb. CO2/MWh for new coal-fired units and 1,000 lb.
15 CO2/MWh for new natural gas combined-cycle units. This rule has also been
16 challenged and is currently on appeal to the D.C. Circuit Court of Appeals.

17

18 On March 28, 2017, the president signed an Executive Order (“EO”) entitled
19 “Promoting Energy Independence and Economic Growth.” The EO directs
20 federal agencies to “immediately review existing regulations that potentially
21 burden the development or use of domestically-produced energy resources and
22 appropriately suspend, revise, or rescind those that unduly burden the
23 development of domestic energy resources.” The EO specifically directs the EPA
24 to review the following rules and determine whether to suspend, revise or rescind

1 those rules:

- 2 • The final CO₂ emission standards for existing power plants (CPP);
- 3 • The final CO₂ emission standards for new power plants (CO₂ NSPS); and
- 4 • The proposed Federal Plan and Model Trading Rules that accompanied
- 5 the CPP.

6

7 In response to the EO, the Department of Justice filed motions with the D.C.
8 Circuit Court to stay the litigation of both the CPP and the CO₂ NSPS rules while
9 each is reviewed by EPA. As a result, the D.C. Circuit has granted a number of
10 60-day extensions holding the CPP litigation in abeyance. The most recent
11 extension was issued on June 20, 2019. Neither the EO nor the abeyance change
12 the current status of the CPP which is under a legal hold by the U.S. Supreme
13 Court. With regard to the CO₂ NSPS, on December 6, 2018, EPA proposed to
14 revise the NSPS for greenhouse gas emissions from new, modified, and
15 reconstructed fossil fuel-fired power plants. After further analysis and review,
16 EPA proposes to determine that the best system of emission reduction (“BSER”)
17 for newly constructed coal-fired units is the most efficient demonstrated steam
18 cycle in combination with the best operating practices. EPA did not propose to
19 amend the standards of performance for newly constructed or reconstructed
20 stationary combustion turbines. In January 2021, EPA issued a clear framework
21 for determining when standards are appropriate for GHG emissions from
22 stationary source categories under Clean Air Act (“CAA”), section
23 111(b)(1)(A). EPA did not take final action to revise the BSER in the 2018
24 proposal. On March 17, 2021, in line with President Biden’s Executive Order

1 13990 on “Protecting Public Health and the Environment and Restoring Science
2 to Tackle the Climate Crisis,” EPA asked the D.C. Circuit to vacate and remand
3 the “significant contribution” final rule. The rule was promulgated without public
4 notice or opportunity to comment. On April 5, 2021, the D.C. Circuit vacated and
5 remanded the January 2021 final rule noted above.

6
7 On June 19, 2019, EPA issued the Affordable Clean Energy rule (“ACE”), an
8 effort to provide existing coal-fired electric utility generating units, or EGUs, with
9 achievable and realistic standards for reducing greenhouse gas (“GHG”)
10 emissions. This action was finalized in conjunction with two related, but separate
11 and distinct, rulemakings: (1) The repeal of the CPP and (2) Revised
12 implementing regulations for ACE, ongoing emission guidelines, and all future
13 emission guidelines for existing sources issued under the authority of CAA,
14 section 111(d). On January 19, 2021, the court vacated the ACE rule and
15 remanded it back to EPA. Vacatur means that the rule will no longer be in effect
16 once the Mandate is issued; the Mandate is the court’s directive to enforce its
17 decision. On February 22, 2021, the court granted EPA’s motion to withhold
18 issuance of the mandate with respect to the vacatur of the CPP Repeal Rule until
19 the EPA responds to the court’s remand in a new rulemaking action. No party
20 filed for Rehearing regarding the court’s January 19th decision. Accordingly, on
21 March 5, 2021, the court issued the Partial Mandate to EPA, officially vacating
22 the ACE rule, but withholding the mandate regarding the CPP repeal. Currently,
23 neither the ACE rule nor Clean Power Plan rule are in effect. Several parties have
24 petitioned asking the Supreme Court to review this case.

1 **Q. Please provide an update on the Waters of the United States (“WOTUS”)**
2 **Rule.**

3 A. On June 29, 2015, the EPA and the Army Corps of Engineers (“Corps”) published
4 the final Clean Water Rule that significantly expands the definition of the Waters
5 of the United States (“WOTUS”). On October 9, 2015, the U.S. Court of Appeals
6 for the Sixth Circuit granted a nationwide stay of the rule effective through the
7 conclusion of the judicial review process. On February 22, 2016, the court issued
8 an opinion that it has jurisdiction and is the appropriate venue to hear the merits
9 of legal challenges to the rule; however, that decision was contested, and on
10 January 13, 2017, the U.S. Supreme Court decided to review the jurisdictional
11 question. Oral arguments in the U.S. Supreme Court were conducted on October
12 2017. On January 22, 2018, the U.S. Supreme Court issued its decision stating
13 federal courts, rather than federal appellate courts, have jurisdiction over
14 challenges to the rule defining WOTUS. Consistent with the U.S. Supreme Court
15 decision, the U.S. Court of Appeals for the Sixth Circuit lifted its nationwide stay
16 on February 28, 2018. The stay issued by the North Dakota District Court remains
17 in effect, but only within the thirteen states within the North Dakota District. On
18 June 8, 2018, the Southern District Georgia Court entered a Preliminary
19 Injunction enjoining implementation of the WOTUS rule in eleven states
20 including Florida.

21
22 On June 27, 2017, the EPA and the Corps published a proposed rule to repeal the
23 2015 WOTUS rule and re-codify the definition of WOTUS which is currently in
24 place. On January 31, 2018, the EPA and Corps announced a final rule adding an

1 applicability date to the 2015 rule, thereby deferring implementation to early
2 2020. This rule has no immediate impact to DEF. The agencies will continue to
3 apply the pre-existing WOTUS definition that was in place prior to 2015 rule until
4 2020. EPA and Corps published a final rule, “Navigable Waters Protection Rule:
5 Definition of ‘Waters of the United States’ (“NWPR”), on April 21, 2020, which
6 became in effect on June 22, 2020. This final rule has no immediate impact to
7 DEF. On June 9, 2021, the U.S. Environmental Protection Agency and the U.S.
8 Army Corps of Engineers (“Agencies”) filed in the U.S. District Court for the
9 District of Massachusetts a motion seeking a remand, without vacatur, of the
10 NWPR. The Agencies requested the remand in conjunction with their
11 forthcoming rulemaking to revise or replace the NWPR. If the court grants the
12 Agencies’ motion, the NWPR will remain in place for the duration of the new
13 rulemaking process. The case is *Conservation Law Foundation v. EPA*, No. 1:20-
14 cv-10820 (D. Mass.).

15
16 **Q. Does this conclude your testimony?**

17 **A.** Yes.
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